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February 19, 1990

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judge
Peter B. Bloch

In the Matter of ROCKWELL INTERNATIONAL CORPORATION Rocketdyne Division (Special Nuclear Materials License No. SNM-21)	Docket No. 70-25 - ML ASLBP No. 89-594-01-ML

DIRECT CASE FOR INTERVENOR SUSANA KNOLLS HOMEOWNERS ASSOCIATION

OPPOSING RELICENSING OF SANTA SUSANA FIELD LABORATORY

INTRODUCTION

Intervenor Susana Knolls Homeowners Association represents approximately 150 families, 300 to 400 persons, who live in the immediate vicinity of Rocketdyne's Santa Susana Field Laboratory (SSFL). Judge Bloch granted intervenor status in Rocketdyne's application for NRC relicensing.

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DISCUSSION

I. DEMOGRAPHIC CHANGES IN RECENT YEARS INCREASE THE RISKS INHERENT AND MANIFEST IN OPERATION OF THE HOT LAB AND PROHIBIT FURTHER RELICENSING.

A Special Nuclear Materials License cannot be issued where the applicant's proposed equipment and procedures are not adequate to protect health and to minimize danger to life and property. 10 CFR 70.23(a)(3) & (4). There is no basis on which to conclude that the proposed equipment and procedures are adequate for the densely populated communities that now exist around the SSFL.

Rockwell's record in operating SSFL, and other facilities such as Rocky Flats, indicates that dangerous release of radioactive and other highly toxic materials is a common event. If, by some stretch of the imagination, Rockwell can be viewed as an applicant qualified by experience to use plutonium properly, then the frequency and historical magnitude of environmental contamination show that proper use of plutonium is not acceptable activity in the Susana Knolls community.

In the late 1940's, when the SSFL started its operation in the Simi Hills, the San Fernando Valley was a sparsely-populated area, with only small towns to service the nearby citrus ranches. There were no freeways connecting Los Angeles to the San Fernando Valley. Simi Valley was connected to the San Fernando Valley by a winding Pass road. The outlying Agoura, Westlake, and Thousand Oaks areas were sparsely populated. The Susana Knolls and Box Canyon areas were developed as weekend cabins, with few permanent residents. In 1950, within a five-mile radius, the population was as follows:

Simi Valley. 5,
Woolsey Canyon . . . . . one
Bell Canyon. . . . . undeveloped
Chatsworth Lake. 180
West Hills/Woodland Hills Valley Circle. . . . . Plant Ranch
Agoura & Westlake. . . . . isolated ranches
Susana Knolls & Box Canyon. 75

1990 is a very different story; gone are the ranches and orange groves; gone are the small towns that serviced them. Los Angeles has spread out, encompassing the valleys in one big urban sprawl. The freeways that networked out in the 1960's brought more rapid growth. SSFL still sits on the hill, but the vista has changed; directly below the facility lies a bustling metropolis. Simi has grown from 5,000 to 100,000; Thousand Oaks from 1,243 to 112,000; Canoga Park now has a population of 40,000; Woodland Hills has 65,000; Chatsworth has 35,000; Bell Canyon - 1500; Hidden Hills - 1,800; Moorpark - 25,173; Westlake Village - 33,000; Agoura - 20,000; and Calabasas - 25,000.

The On-Site Radiological Contingency Plan for Rockwell International's operations at SSFL published a population projection for areas surrounding the SSFL. Page 1-6 of the December, 1989 revision of that document RI/RD88-206 is attached as Exhibit "A." The figures for 1989 population are based on 1980 census data. With the flurry of development in the last ten years, these figures have surely been surpassed. Regardless of this, the fact is that we have a nuclear facility which used to operate in a nearly isolated location during the 1950's, but which now is in the midst of sprawling suburbs of Los Angeles. Expensive homes now nestle in the hills right at its boundaries.

There are over a hundred thousand people within five miles of the plant, and several million within a few tens of miles.

The last 40 years have brought vast changes which signal the need for reevaluation. The operation of a nuclear facility in such close proximity to so many people is an unconscionable risk! Any kind of nuclear accident at the facility today would affect very large numbers of people, with devastating consequences.

II. ROCKWELL INTERNATIONAL IS UNFIT TO POSSESS A SPECIAL NUCLEAR MATERIALS LICENSE.

No Special Nuclear Materials License will be issued if the issuance would constitute an unreasonable risk to the health and safety of the public. (10 CFR 70.31(d)). Rockwell International's record at SSFL, and at other nuclear facilities which it has operated, shows that it cannot be trusted to protect the health and safety of the public and that it is not qualified by experience and training to use plutonium properly.

In the past year there has been a flood of damning information about Rockwell International's handling of nuclear materials. Rockwell's nuclear experience has been a shocking story of accident, incompetence and environmental contamination. Many examples have recently appeared in the local press; many other examples may wait to be discovered.

The following publicized examples show at least a lack of competence and a lack of candor.*

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* In the references that follow, "DOE" as a source refers to "Environmental Survey: Preliminary Report" prepared by the Office of Environmental Audit of the U.S. Department of Energy, Washington, D.C., February 1989, sections of which are attached hereto. The Susana Knolls Homeowners Association requests that the full report be included in the hearing record, if it is not already.

A. ROCKWELL CANNOT BE TRUSTED FOR TECHNICAL COMPETENCE OR GOOD FAITH COMPLIANCE WITH THE REGULATIONS.

The license can be issued only where the applicant is qualified by experience and training to use the material for the purpose requested in accordance with the full range of NRC regulations applicable to such licensees. See 10 CFR 70.23(a)(2)). Examples of the applicant's disqualifying experience follow:

5/14/89 Daily News - leachfield contaminated by accident.

5/29/89 Daily News - for 20 years, SSFL employees used gunfire to open cylinders of unidentified hazardous waste.

6/16/89 Times & Daily News - Workers overexposed to radiation in 1960's; company blames equipment failures; no information released on long-term consequences; company had been applying wrong safety standards.

7/2/89 Daily News - Superfund inspection deliberately avoids areas of contamination; state regulators criticize unwillingness to follow regulations.

7/9/89 Daily News - Accidental leachfield release of 5,000 gallons of radioactive waste water not discovered for 18 years; other surface releases cited.

DOE p. 4-46 - Leachfield spill excavated to bedrock; radioactivity had penetrated bedrock; no radioactive parameters were analyzed; no groundwater monitoring.

p. 4-58 - leachfield a potential source of groundwater contamination.

7/31/89 Times - Earlier dumping of hot wastes at sea is revealed. Workers were not aware of any danger.

8/2/89 Daily News - chemical and nuclear contamination of soil, surface water, ground water and buildings concealed for years.

8/13/89 Daily News - EPA reports radioactive soil removed from on-site dump; no records available to confirm clean-up.

8/31/89 Daily News - EPA questions validity of Rocketdyne's environmental data. Rocketdyne has not documented spills.

DOE p. 4-52 - SSFL's sampling of radioactive and non-radioactive hazardous wastes in Sodium Burn Pit was deliberately biased to avoid sampling contaminated areas.

p. 4-58 & 59 - contamination of basement of B059 and Old Conservation Yard. No records available.

8/89 Daily News - Plan for decommissioning surplus facilities revealed in 1983 that radioactive contamination could spread to surrounding areas.

9/1/89 Daily News - Preliminary finding of violation in earlier dumping of waste water into Sodium Burn Pit.

9/3/89 Daily News - In 1988 Rocketdyne did not provide report on extent of radioactive contamination at SSFL when pressed for that information by DOE inspector. Such a report had been prepared in 1983.

9/4/89 Times - Rockwell Hanford management ordered removal of radiation warnings when Washington governor visited Hanford in 1985.

9/13/89 Daily News - Rockwell officials knew for six years that radioactive contamination could spread from SSFL to surrounding areas.

9/14/89 Daily News - Rockwell withheld details of radioactive contamination from health officials; internal document showed that Rockwell regarded public knowledge as one of biggest risks to operation of SSFL.

10/25/89 Enterprise - Truck crash in Pennsylvania. NRC announces that truck, which carried radioactive material from SSFL, was measured at 250 millirems per hour, 25% above allowable levels.

10/29/89 Daily News - Robert Lancet, Rocketdyne's director of nuclear safety, tells judge that all radioactive spills were too trivial to list; he refuses to comment on triviality of Building 64 and Radioactive Materials Disposal Facility. EPA investigator says Rocketdyne does not have a good handle on location of contamination.

undated Daily News - Water Quality Control Board member says Rocketdyne is very uninterested in cleaning up ground water.

11/7/89 Daily News - Rockwell officials document 12 accidental releases of radioactive materials at SSFL.

11/15/89 Daily News - Rocketdyne and DOE officials claim ignorance of source of radioactive contamination at Sodium Burn Pit.

11/22/89 Enterprise - Simi Valley officials react to use of 30-year-old map in DOE report.

11/30/89 Daily News - NRC inspector finds Radiological Contingency Plan inaccurate and inadequate. Judge Bloch calls Rockwell's statements "negligent or grossly negligent."

B. ROCKWELL VIOLATES REQUIREMENTS FOR TIMELY DISCLOSURE OF COMPLETE AND ACCURATE INFORMATION AND BY FAILING TO MAKE NECESSARY SURVEYS OF RADIATION HAZARDS.

A licensee or an applicant for a license must supply information that is complete and accurate in all material respects [10 CFR 70.9(a)]; the licensee or applicant identifying information with significant implications for public health and safety must notify the Commission within two working days. [10 CFR 70.9(b)]. And a licensee must make all the surveys of radiation hazards necessary to protect health and safety. (10 CFR 20.201(b). Rockwell has repeatedly violated this regulation in its operations at SSFL. The events referred to below are indicative of incomplete and untimely information:

6/16/89 Times & Daily News - Workers overexposed to radiation in 1960's; company blames equipment failures; no information released on long-term consequences; company had been applying wrong safety standards.

7/2/89 Daily News - Superfund inspection deliberately avoids areas of contamination; state regulators criticize unwillingness to follow regulations.

7/9/89 Daily News - Accidental leachfield release of 5,000 gallons of radioactive waste water not discovered for 18 years; other surface releases cited.

7/31/89 Times - Earlier dumping of hot wastes at sea is revealed. Workers were not aware of any danger.

8/2/89 Daily News - chemical and nuclear contamination of soil, surface water, ground water and buildings concealed for years.

8/13/89 Daily News - EPA reports radioactive soil removed from on-site dump; no records available to confirm clean-up.

8/31/89 Daily News - EPA questions validity of Rocketdyne's environmental data. Rocketdyne has not documented spills. Test methods remove important pollutants before testing.

DOE p. 4-52 - SSFL's sampling of radioactive and non-radioactive hazardous wastes in Sodium Burn Pit was deliberately biased to avoid sampling contaminated areas.

p. 4-58 & 59 - contamination of basement of B/059 and Old Conservation Yard. No records available.

8/89 Daily News - Plan for decommissioning surplus facilities revealed in 1983 that radioactive contamination could spread to surrounding areas.

9/1/89 Daily News - Preliminary finding of violation in earlier dumping of waste water into Sodium Burn Pit.

9/1/89 Times - EPA challenges SSFL test methods for radioactive pollution; SSFL had, for example, washed vegetation before sampling for contamination. Validity of some, if not all of environmental data is is questioned.

9/3/89 Daily News - In 1988 Rocketdyne did not provide report on extent of radioactive contamination at SSFL when pressed for that information by DOE inspector. Such a report had been prepared in 1983.

9/13/89 Daily News - Rockwell officials knew for six years that radioactive contamination could spread from SSFL to surrounding areas.

9/14/89 Daily News - Rockwell withheld details of radioactive contamination from health officials; internal document showed that Rockwell regarded public knowledge as one of biggest risks to operation of SSFL.

10/29/89 Daily News - Despite repeated requests from NRC, EPA, state agencies and citizens, SSFL fails to document radioactive spills. Robert Lancet, Rocketdyne's director of nuclear safety, tells judge that all radioactive spills were too trivial to list; he refuses to comment on triviality of Building 64 and Radioactive Materials Disposal Facility.

undated Daily News - Water Quality Control Board member says Rocketdyne is very uninterested in cleaning up ground water.

11/7/89 Daily News - Rockwell officials document 12 accidental releases of radioactive materials at SSFL.

12/15/89 Daily News - Chemical pollution of ground water is found. Rocketdyne spokesman says that previous assurances, that ground water contamination had not spread off-site, referred only to radioactive pollutants.

CONCLUSION

Rockwell is not fit to be relicensed to possess and use plutonium. The requested license should be denied.

I swear under penalty of perjury that the foregoing is true and correct to the best of my knowledge and belief.

Barbara M. Johnson

BARBARA M. JOHNSON, PRESIDENT
SUSANA KNOLLS HOMEOWNERS ASSOCIATION

dated at Susana Knolls, California

this 19th day of February 1990

Marie J. Mason

MARIE J. MASON, VICE PRESIDENT
SUSANA KNOLLS HOMEOWNERS ASSOCIATION

BEFORE THE
ATOMIC SAFETY AND LICENSING BOARD
U.S. NUCLEAR REGULATORY COMMISSION

In the Matter of	)	
	)	
ROCKWELL INTERNATIONAL CORPORATION	)	Docket No. 70-25-MLA
	)	
(Rocketdyne Division, Special Nuclear Materials License SNM-21)	)	
	)	
	)	

CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing DIRECT CASE FOR INTERVENOR SUSANA KNOLLS HOMEOWNERS ASSOCIATION OPPOSING RELICENSING OF SANTA SUSANA FIELD LABORATORY have been served upon the following persons by U.S. mail, first class, except as otherwise noted and in accordance with the requirements of 10 CFR 2.712.

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Barbara M Johnson

BARBARA M. JOHNSON, PRESIDENT
SUSANA KNOLLS HOMEOWNERS ASSOCIATION

Dated at Susana Knolls, California
this 19th day of February, 1990

MARIE J. MASON, VICE PRESIDENT
SUSANA KNOLLS HOMEOWNERS ASSOCIATION

Table 1-1. 1989 Population Array

Projected population distribution for 1989 (residential occupancy only)
Assumptions: 1) Average annual growth rate based on annual growth rate from 1981 to 1986
2) Adjusted for major developments (to 10 miles)
3) Major changes in the population distribution estimated

	Distance from SSFL Site (miles)										
Sector	0-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50	Total
N	0	0	2,989	3,363	8,148	103	25,819	7,566	1,109	116	49,213
NNE	0	0	0	12,918	4,008	36	46,539	11,434	4,933	28,098	107,966
NE	0	0	0	675	500	342	30,938	13,029	6,151	72,979	124,614
ENE	0	0	0	66	1,142	54,445	270,122	53,401	8	1,530	380,714
E	0	0	240	2,129	6,271	118,078	406,297	532,591	699,061	602,983	2,367,650
ESE	0	0	210	1,226	8,540	54,222	139,345	1,223,893	1,201,119	1,021,370	3,514,080
SE	0	210	987	150	500	19,819	80,393	156,501	509,323	208,635	976,518
SSE	0	0	72	172	3,864	1,500	4,596	0	0	0	10,204
S	0	0	0	0	3,225	15,368	5,885	0	0	0	24,478
SSW	0	0	0	0	600	20,246	9,449	0	0	0	30,295
SW	0	0	0	150	900	22,673	1,356	0	0	0	25,079
WSW	0	0	0	0	20	43,822	76,158	158,483	4,343	0	282,826
W	0	0	0	0	0	5,702	37,572	86,093	40,916	16,422	186,705
WNW	0	0	2,850	2,990	16,772	11,748	9,620	12,506	19,876	0	76,362
NW	0	1,444	4,395	14,241	4,276	2,100	8,885	0	269	779	36,389
NNW	0	0	0	7,073	4,349	810	1,535	0	0	2,762	16,529
Total	0	1,654	11,743	45,153	63,115	371,014	1,018,664	2,255,497	2,487,108	1,955,674	8,209,622

NEGLIGENT OR UNTRUSTWORTHY ACTS

DAILY NEWS ARTICLE MAY 14,89

Leach field contaminated by valve accidentally being open.

DAILY NEWS/LA TIMES JUNE 16,1989

Rockwell workers overexposed to radiation in 60's
The company formed a study committee which determined that uranium dust was leaking from various pieces of equipment in the fuel fabrication operation, was becoming airborne and was being inhaled by the workers.

There was no information in the documents to indicate whether any of the workers suffered long term health effects. Names of the workers were blacked out on the documents released by the DOE.

Rockwell's safety effort was based on the wrong standard for airborne uranium. The company was observing a standard six times weaker than the proper limit for the form of uranium involved.

DAILY NEWS JULY 2, 1989

EPA'a 1980 Comprehensive Environmental Response Compensation and Liability Act was criticized in the DOE survey as faulty because trenches dug to obtain soil samples purposely avoided radioactive areas.

Florence Pearson, state hazardous materials specialist, said that the failure to meet deadlines on the toxic pit closures by several months raised questions about Rocketdyne's "apparent unwillingness to follow the direction of regulatory agencies."

DAILY NEWS JULY 9, 1989

About 5,000 gallons of radioactive waste water was accidentally released into the leach field in the early 60's and not discovered and cleaned up until 1978 company records show

A surface spill in the 1970's involved radioactive water in the 200 to 500 gallon range created additional contamination

surface. Exploratory trenches have been dug, and most contaminated equipment has been removed from the ground surface. Groundwater and soil contamination has been detected.

4.5.1.2 B/059 Former SNAP Facility

The basement of the B/059 SNAP facility is a potential source of groundwater contamination. The basement contains sand and water contaminated with Co-60. Water in a french drain surrounding B/059, sampled through a standpipe, contains chlorinated organics, including trichloroethylene (TCE) and tetrachloroethylene (PCE).

4.5.1.3 B/021, 022 RMDF Leachfield

The RMDF leachfield was contaminated with radionuclides in the early 1960s when a tank valve was accidentally opened. The tank contained radioactive wastewater being held for treatment and solidification. In 1978, the leachfield was excavated to bedrock and backfilled. Residual radioactivity was found in the bedrock cracks, presumably from wastewater percolation, and the cracks were filled with asphaltic tar. No nonradioactive parameters were analyzed during the cleanup. No groundwater monitoring has been performed.

4.5.1.4 Old Conservation Yard

Aerial photographs of the Old Conservation Yard shows that hundreds of drums and equipment were stored there through the 1960s and 1970s. No analytical or inventory information was available on the contents of the drums. Leaks and spills were likely in an area with no containment and no protection.

4.5.1.5 B/056 Landfill

The B/056 Landfill is a potential source of groundwater contamination because of the disposal of drums of wastes, some of which were hazardous. These drums were found on the top of the landfill and at the bottom of the slope. No inventory is available on the waste placed in the landfill, but approximately 90 drums were removed from the surface of the landfill in the 1980s, and several dozen empty drums were found at the toe of the landfill slope. (The previous history of these drums is unknown.) The landfill was used as a loose fill area from construction and excavation activities, according to SSFL personnel. A single groundwater monitoring well (RD-7), presumably located upgradient of the landfill, is contaminated with up to 130 ppb of trichloroethylene (TCE) and other volatile organics.

For 3 days between March 31–April 2, 1986, SSFL personnel dug 23 test trenches in the Sodium Burn Pit area (4 in the slope below the ponds, 8 in the lower pond, 6 in the upper pond, and 5 in the west area). This site characterization, consisting of exploratory trenches and soil sampling, revealed the presence of buried radioactive, chemical, and mixed hazardous wastes. The results of this sampling were presented in the May 1987 Phase II Site Characterization Report (Olson et al., 1987). The trenches dug, sampled, or analyzed are listed in Table 4-11 and illustrated in Figure 4-3. Samples were collected but not analyzed from three trenches (BP-2, BP-3, BP-4). No samples were collected from two trenches (BPU-1 and BPW-1). Of the remaining 18 trenches where the Phase II report suggested implicitly that soil samples had been analyzed, results were presented for 5 trenches. No analytical information was available regarding the remaining thirteen trenches. The Phase II report did not state clearly that these samples had been analyzed but suggested it implicitly by noting which selected samples were not analyzed.

The sampling at the Burn Pit was biased to avoid sampling contaminated areas, a method which thereby systematically underestimated contamination at the Burn Pit. According to the Phase II report, "radiologically 'hot' areas were avoided to assure that the samples could be handled in the Chemistry Laboratory" (Olson et al., 1987, p. 12). Because radioactive and non-radioactive wastes were probably buried and released together, by avoiding radioactive areas, the sampling program probably also avoided non-radioactive areas. There is no evidence that radioactive and non-radioactive wastes were physically segregated at the Burn Pit or that they were randomly associated and disassociated. In those cases where radioactively contaminated soil was inadvertently sampled, cesium-137 was the most predominant radionuclide.

The rationale for determining whether or not samples would be analyzed was unclear. The decision appeared to have been based on (1) field detection of radioactivity, (2) visual evidence of possible contamination; and (3) odors. In several cases, SSFL noted, "Samples were collected but not analyzed because there were no debris and no unusual odors" (Olson et al., 1987, p. 48).

Negligent or untrustworthy acts

LA TIMES JULY 31, 1989

James Youngbood,retired Rockwell worker went on two of the trips dumping radioactive waste in the sea said this was a plum assignment and the men took turns because of the extra pay. "We just took it for granted it was a safe thing to do." said Junius Wheeler, a former maintenance supervisor who helped prepare the drums for disposal. Workers were not told of the danger

DAILY NEWS AUGUST 2, 1989

Extensive chemical contamination of surface and ground water and soil at the Air Force and NASA areas have been known for five years

Building 64 contamination has been known for10 years

EPA not informed of 1987 tests that revealed high levels of of toxic solvents and low levels of radioactive cesium-137 in the pit

DAILY NEWS AUGUST 13, 1989

An EPA report said radioactive soil had been removed for the Old Conservation Yard, a dump site where hundreds ofdrums and pieces of equipment were stored during 60's and 70's which the DOE survey team indentified as a potential source of soil and ground water contamination. Rockwell now considers the yard clean. NO RECORDS available to confirm the clean-up activity.

DAILY NEWS AUGUST 31, 1989

Gregg D. Dempsey, EPA Radiation Specialists, "Certain problems exist within this laboratory that make me question the validity of some, if not all, of their environmental data"

Excerpt of EPA report, "It is also clear to me that Rocketdyne does not have a good"handle" on where radiation has been inadvertently or intentionally dumped onsite. Most of the evidence on site spills is incompletely documented or anecdotal. DOE or Rocketdyne should conduct a complete survey of the site, specifically looking for other spill areas."

The B/059 building is located in the north central section of Area IV. A Space Nuclear Auxiliary Power (SNAP) nuclear reactor was removed from the basement of B/059. In 1978, SSFL personnel began decommissioning and decontaminating the building by removing approximately 60 percent of the sand, which had been poured into the basement to provide radiation shielding around the vacuum duct during reator operations. In September 1983, SSFL personnel informed DOE that groundwater was leaking into the pipe chase room of the basement and was radioactively contaminated from contact with the activated sand.

There are two groundwater contamination issues at the B/059 building: (1) radionuclides from the basement; and (2) organic solvents from the outside groundwater. As discussed in Finding 3.4.4.3.2.c, the water level in the B/059 basement is pumped to maintain a lower water level than the outside in order to prevent radioactively contaminated water from leaking into the outside groundwater. The water in the french drain on three sides of B/059 was found to be contaminated with up to 540 ppb PCE and 110 ppb TCE, compared to state action levels of 4 ppb for PCE and 5 ppb for TCE. The water from the basement is sent to the RMDF for evaporation. The organics contaminated water from the french drain is passed through a carbon filter, stored and analyzed, before being discharged to the surface drainage. In the winter it may reach the Area III pond.

c. B/021, 022 RMDF Leachfield. The RMDF leachfield, which was contaminated with radionuclides in the early 1960s when a tank valve was accidentally opened, is a potential source of groundwater contamination. The RMDF is located in the north central portion of SSFL/Area IV. The tank contained radioactive wastewater being held for treatment and solidification. In 1978, the leachfield was excavated to bedrock and backfilled. Residual radioactivity was found in the bedrock cracks, presumably from wastewater percolation or flow, and the cracks were filled with tar. No nonradioactive parameters were analyzed during the cleanup. No groundwater monitoring has been performed.

d. Old Conservation Yard. The Old Conservation Yard is a potential source of soil and groundwater contamination.

The Old Conservation Yard is located in the northeast section of SSFL/Area IV. Aerial photographs of the Old Conservation Yard show that hundreds of drums and pieces of equipment were stored there through the 1960s and 1970s. No analytical or inventory information was available on the contents of the drums. Leaks and spills may have occurred in an area with no containment and no protection. One aerial photograph

(No. SS-9) of the Old Conservation Yard, taken on January 27, 1961, shows that the area was relatively clear and free of debris. An aerial photograph (No. SS-55) taken on March 14, 1962, however, shows a significant amount of debris and equipment located randomly around the site, with several drums prominent in the foreground. By April 23, 1963, when aerial photograph No. 121 was taken, the Conservation yard was composed of several areas of debris, equipment, and drums extending from the Service Area Road to beyond the north west border of SSFL. The next aerial photographs available (No. 529CN), taken on January 22, 1978, showed a much smaller area covered with debris, one of the two existing large oil-storage tanks built, and a new yard started across the street on the south side of the Service Area Road.

According to the Phase I report (Adler, 1986, p. 34), "the area was cleaned up in 1983." No records were available to document the activity.

e. B/056 Landfill. The B/056 Landfill is a potential source of groundwater contamination because of the disposal of drums of waste, some of which were hazardous, on the surface of the landfill. The landfill occupies less than 1/4 acre (10,000 ft^2) on the northwestern edge of SSFL property, approximately 300 feet west of B/059. SSFL personnel deposited soil there from the excavation for the planned B/056 SNAP facility and the SCTI facility. The landfill is immediately northwest of the large hole that was excavated for the B/056 SNAP facility. The B/056 excavation has sheer vertical rock sides and is now partially filled with water. Aerial photographs show that the hole has been surrounded with a chain-link fence since its construction, and therefore, waste disposal into this hole is unlikely.

The 1987 Phase II report characterized the B/056 landfill as a "former temporary drum storage area." But, an aerial photograph (No. SS419-CN) of the site taken on June 30, 1975, shows at least two dozen drums piled at the bottom of a 30-foot-deep ravine visible at the edge of the landfill. These drums are completely rusty and appear to have been there for an extended period. Because of their location at the bottom of the slope, retrieval of these stored drums would be extremely difficult. No information was available on the content (or former contents) of these rusty drums. In another aerial photograph (SS448CN) taken January 29, 1976, a white staketruck is visible. The rear of this truck is overhanging the edge of the landfill. Again, material deposited over the edge of the landfill would be very difficult to retrieve if temporary storage were attempted.

In 1980 and 1981, 89 drums of waste were removed from the top of landfill. SSFL personnel found that these drums contained oils, alcohols, sodium and sodium reaction

DAILY NEWS AUGUST,1989

The Long Range Plan for Decommissioning Surplus Facilities, completed by Rockwell in 1983 summarized potential risks from contamination at 5 buildings and 4 support areas within the facility. Rockwell officials knew at least 6 years ago that radioactive contamination could spread from the SSFL to surrounding areas.

DAILY NEWS SEPT. 1, 1989

Assemblyman, Richard Katz said a preliminary finding by the Ca. Reg. Water Quality Control staff Rockwell violated an earlier law when it dumped waste water into the one acre Old Sodium Burn Pit in the 70's

LA TIMES SEPT. 4, 1989

Rockwell and the Energy Dept. should have volunteered the data, if only as a professional courtesy, Hank Yacoub, regional board.

A recent report by the House sub-committee on oversight and investigations told how Rockwell prepared for a visit to Hanford by Washington's governor in March 1985.
As the governor's party approached a contaminated area "signs which warned of the radiation hazard were removed...on direct orders from Rockwell Hanford Operations management..." said the June, 1989 report. "A part of the governor's entourage passed right through the contaminated area, oblivious of the hazard around them" Rockwell covered up this incident for almost one year until the matter came to the attention of the media and the subcommittee

DAILY NEWS SEPT. 13, 1989

Rockwell officials knew at least 6 years ago that radioactive contamination could spread from the SSFL to surrounding areas.

DAILY NEWS SEPT 14, 1989

A Ventura County supervisor , James Dougherty, said Rockwell did not provide full details about radioactive contamination at SSFL nearly 10 years ago when officials were trying to determine if the facility posed a health risk.
An internal company document, prepared in 1983 shows that Rockwell officials considered public knowledge and the political reaction it could bring among the biggest risks in operating the field lab.

ENTERPRISE OCT.25, 1989

Truck carrying radioactive material from Rocketdyne crashed in Pennsylvania. Measurements of the truck after the incident have been confirmed as being 250 milligrams per hour. The Dept. of Transportation does not allow vehicles carrying radioactive equipment to exceed 200 milligrams per hour. said Lee Bettenhausen, spokesman for NRC in Pa.

DAILY NEWS OCT. 29, 1989

Robert Lancet, Rocketdynes director of nuclear safety and licensing, told the judge that all the radioactive spills were too trival to list under specific terms set out in the judge's order.. In a follow-up interview, Lancet declined to answer when asked specifically if the Radioactive Materials Disposal Facility and Building 64 spills were too trival to mention under the terms of the judge's order.

DAILY NEWS (NO DATE)

Water Quality Control Board member, Paul D. Flowers, said, "It's just another giant company that is very uninterested in cleaning up the ground water.

DAILY NEWS NOV.7, 1989

Rockwell officials have documented 12 accidental releases of radioactive materials at SSFL over the last 20 years
Cited were 4 incidents of fires or explosions, 6 instances where liquid contaminated with radioactivity was leaked, including one case where it may have gone off site, a truck accident and the disappearance of a small amount of strontium 90
After initially saying all spills were too trivial to list
THE COMPANY AGREED Oct. 4 to comply with Judge's orders

A Rocketdyne official noted that one radioactive release-soil contamination near one of 16 reactors operated from 1950's should have been included under the terms of the order but was missed. It was reported to DOE and cleaned up

List of radiological releases reported by company

July 29,75 fire during processing of a radioactive fuel slug occurred while a tour was being conducted. The tour was terminated and all "unnecessary personnel were requested to leave the operating gallery" The incident did not result in any overexposures,Sept. 29,75 company letter said

A leach field near the 9 building complex where radioactive materials were packaged and stored, was found to have contaminated water draining from it on Feb. 14,78 The company estimated it had been draining about 5 days at 25 gallons per hour.

A small percentage "may have been discharged across the site boundary" March 2, 78 internal letter said.

On Jan. 20,79 water in a retention pond showed an unusual increase in the concentration of radioactivity . The probable cause was an "accidental release" near the disposal facility. Heavy rainfall forced the company to pump the pond to a surface channel leading to a pond that discharges into a creek running through Bell Canyon. The company said radioactivity in that pond never exceeded natural background levels?????

Low-level radioactive material leaked from a truck headed for Nevada on Aug.14,79, the company said. The liquid was caught in a bucket, and the contaminated area blocked off. A lab coat of one employee and a boot of another were contaminated, company document said. There were no internal exposures.

On April 24,86, company officials reported a small amount of strontium 90 missing from the facility. Company officials believe the strontium 90 was properly disposed of with other radioactive material during decontamination activities. "The source had last been seen in Jan. when it was placed in a plastic bag, and marked SAVE at the start of a cleanup of the Hot Storage Room"."During cleanup of the Hot Storage Room, many excess items of contaminated equipment were placed in disposal container for burial at an authorized radioactive waste disposal site. It is our conclusion that the source in its plastic bag, was put in one of these waste containers."

DAILY NEWS NOV. 15 1989

Company and DOE officials have said they do not know how the area, Sodium Burn Pit, became contaminated, stating that no one was ever authorized to dispose nuclear wasted there.

ENTERPRISE NOV.21,1989

Map of Simi Valley used in DOE report 20 tc 30 years old.

Simi Valley, Councilmember, Ann Rock, a chemical engineer said, "For something that was site specific, it was lacking a lot of information." Rock also questioned land use percentages used by federal speculators on the types of land uses identified in the Susana Knolls residential area around the Rocketdyne site.

Among Simi city staff concerns was the absence of information on transportation routes planned for use during the cleanup.

DAILY NEWS NOV. 30,1989

NRC inspector C.A.Hooker said company officials explained that the emergency plan was inaccurate because it was not adequately revised after NRC licensed facilities in operation at the companys Canoga Park plant were closed.

ROCKETDYNE MAKES LIGHT OF PUBLIC CONCERNS

L.A. TIMES JUNE 7, 1989

Hank C. Wiezeneck, V.P. Rocketdyne, " If you planted a field of cabbage on that area we cleaned up and ate the cabbages for a year, you'd only have three extra hours of exposure to radioactivity than you'd normally have." in a year.

Steve Lafflam, environmental manager for site. sitting in the burn pit for a day "would be the equivalent of spending the day in Denver" which gets more solar radiation because of its altitude.

DAILY NEWS JUNE 18, 1989

Quote by Robert J. Tuttle, Chief of radiation health and safety for Rocketdyne
"I figure that we'll sell the place for houses and make a fortune, at some point in the future, when there's no need for rocket testing,(when) we'll have developed warp drive or whatever, this place will turn into a nice residential area."

DAILY NEWS OCT. 1, 1989

Robert Tuttle, director of radiation safety and health ,Rocketdyne
"We've cleaned up some of these because of public concern. The public can become to phobic about radioactivity."

TESTING INCOMPLETE

DAILY NEWS ARTICLE MAY 14,1989

1. James D. Werner states he feels no comprehensive ground water monitoring survey or soil survey
2. No inventory on waste that contaminated bedrock
3. Werner said there are not enough monitoring wells and those that are,there are poorly located for detecting contamination

DAILY NEWS MAY17,1989

1. Health Physics Instruments of Santa Barbara reviewed tone companys records and testing procedures and were unable to do a complete repor because the county didn't pay him enough money to run independent tests to verify the company's records.

2. Tests of radioactive material criticized in report for being "biased to avoid sampling contaminated areas, a method which thereby systematically underestimated contamination at the burn pit'

3. The company's ground water monitoring program is described as being incapable of effectively measuring "the nature and extent of ground water contamination at known and potential (on site) sources areas, and detecting off site ground water contamination."

4. Outdated sampling locations for soil radioactivity

LA TIMES SEPT. 1,1989

Greg Dempsey, health physicist and branch chief of EPA,Las Vegas wrote a memo July 28 Santa Susana radiological lab. apparently has never undergone a thorough audit or review by Rocketdyne or the DOE. Methods used to test vegetation for radioactivity are seriously flawed. Washing vegetation before testing, assuring that any airborne contamination that settled on the plant instead of being absorbed through the roots "is washed off before counting".Rocketdyne ceased testing vegetation in 1985. The procedure used to test soil "is a screening method at best." It does not provide "a true representation of conditions present in the environment.

DAILY NEWS SEPT. 3, 1989

Rocketdyne did not give the DOE survey team a report from 1983 on contaminated areas. This makes new survey incomplete Robert Tuttle, Rocketdyne's chief of radiation health and safety said this report may have been "overlooked"

DAILY NEWS SEPT,1989

EPA calls Rockwell lab safe, but admits test is incomplete
EPA offical stated survey did not include data on soil contamination at a nine building radioactive waste packaging facility where company tests have found radioactivity 200 times above background levels. This is the second time that government investigators conducting an environmental survey have missed the waste facility's contamination.

ENTERPRISE DEC. 15, 1989

Steve Lafflam, Rocketdyne environmental unit manager,said eventually, all 160 water wells on the site will be tested for tritium and other radioactive contaminants.

DAILY NEWS DEC. 15, 1989

Results of tests for radioactivity are not yet available
(Yet Rocketdyne says all is well)

For 3 days between March 31–April 2, 1986, SSFL personnel dug 23 test trenches in the Sodium Burn Pit area (4 in the slope below the ponds, 8 in the lower pond, 6 in the upper pond, and 5 in the west area). This site characterization, consisting of exploratory trenches and soil sampling, revealed the presence of buried radioactive, chemical, and mixed hazardous wastes. The results of this sampling were presented in the May 1987 Phase II Site Characterization Report (Olson et al., 1987). The trenches dug, sampled, or analyzed are listed in Table 4-11 and illustrated in Figure 4-3. Samples were collected but not analyzed from three trenches (BP-2, BP-3, BP-4). No samples were collected from two trenches (BPU-1 and BPW-1). Of the remaining 18 trenches where the Phase II report suggested implicitly that soil samples had been analyzed, results were presented for 5 trenches. No analytical information was available regarding the remaining thirteen trenches. The Phase II report did not state clearly that these samples had been analyzed but suggested it implicitly by noting which selected samples were not analyzed.

The sampling at the Burn Pit was biased to avoid sampling contaminated areas, a method which thereby systematically underestimated contamination at the Burn Pit. According to the Phase II report, "radiologically 'hot' areas were avoided to assure that the samples could be handled in the Chemistry Laboratory" (Olson et al., 1987, p. 12). Because radioactive and non-radioactive wastes were probably buried and released together, by avoiding radioactive areas, the sampling program probably also avoided non-radioactive areas. There is no evidence that radioactive and non-radioactive wastes were physically segregated at the Burn Pit or that they were randomly associated and disassociated. In those cases where radioactively contaminated soil was inadvertently sampled, cesium-137 was the most predominant radionuclide.

The rationale for determining whether or not samples would be analyzed was unclear. The decision appeared to have been based on (1) field detection of radioactivity; (2) visual evidence of possible contamination; and (3) odors. In several cases, SSFL noted, "Samples were collected but not analyzed because there were no debris and no unusual odors" (Olson et al., 1987, p. 48).

3.4.4 Findings and Observations

3.4.4.1 Category I

None.

3.4.4.2 Category II

None.

3.4.4.3 Category III

1. The groundwater monitoring program is inadequate at known or suspected sources of contamination. The groundwater monitoring program has a number of inadequacies that make it difficult to reliably monitor or accurately characterize groundwater contamination. The Survey identified the following deficiencies:

   a. Inadequate characterization of site hydrogeology (i.e., the vertical and horizontal flow rates and direction of groundwater is not well defined) at the known or suspected areas of contaminated groundwater. The presence of a groundwater divide in Area IV is apparent, but its location relative to the individual known or suspected sources of contamination has not been determined. In addition, only one deep well (Well RD-7) exists that can be used for investigating the physical characteristics of the Chatsworth Formation in Area IV. One well is not capable of providing comprehensive data on horizontal groundwater flow rates and groundwater gradients at all of the known or suspected areas of contamination.

   b. Insufficient number of wells to characterize the actual and potential sources of groundwater contamination. The five monitoring wells (one deep, four shallow) installed in Area IV were not located with respect to the seven known or suspected areas of groundwater contamination. Although three of the wells and the standpipe at Building B 059 have indicated groundwater contamination, characterizations at each of the areas is not possible with the one or two wells at the known areas of contamination and none at the suspected sites. The groundwater monitoring locations near each known source of groundwater contamination are: Old Sodium Burn Pit, RS-18; Well RD-7 Area, Wells RD-7 and RS-16; and Building B 059, B 059 Standpipe. There are no wells near any of the four potential areas of groundwater contamination.

asbestos exists in the area. SSFL has not investigated the area to determine the source of the asbestos.

3.2.3 Environmental Monitoring Program

Environmental monitoring of soil and vegetation for radioactivity was initiated in 1954 at SSFL and has continued to the present. The current program is directed and performed by the Radiation and Nuclear Safety Group of the Health, Safety, and Environment Department. The intent of the program is to adequately survey environmental radioactivity to ensure that nuclear operations do not contribute significantly to environmental radioactivity (Moore, 1988). The locations selected for on-site sampling were selected in the mid-1950s (prior to SRE construction), based on the planned locations for reactor experiments. The locations for monitoring have not significantly changed since the original selections were made, although site operations have changed relative to potential radioactive sources for contamination (see Finding 3.2.4.4.1).

The current program of soil monitoring consists of collecting 48 samples from on-site and off-site locations up to 16 kilometers (10 miles) from the facility on a quarterly basis (Moore, 1984; Moore, 1986). Figures 3-4 and 3-5 show on-site and off-site sampling locations. Samples are collected from an undisturbed area within 15 meters (50 feet) of the location listed in the Radiological Environmental Monitoring Program document (Moore, 1986). No sample location markers are used in the field to define the area to be sampled. The sample is collected by scooping up approximately 100 grams of soil from the top 2.5 cm (1 inch) of soil using a plastic scoop. The sample is prepared by drying, sieving on a 0.6 mm Coors crucible, and spreading with alcohol on a copper planchet. Analyses are performed by counting for 100 minutes for gross alpha and gross beta at an on-site laboratory. The balance of the raw sample and the furnaced sample are then composited and gamma scanned. Data analyses are reviewed by four site personnel. The samples are collected and analyzed by the same person, and the samples do not leave the sampler's possession. No formal chain-of-custody is used. Semiannually, samples are collected by SSFL and analyzed off-site for plutonium by an independent laboratory according to NRC guidelines.

Vegetation monitoring for radioactivity, which was conducted with monthly soil monitoring, was discontinued after 1985 when SSFL also decided to reduce soil monitoring from monthly to quarterly intervals.

Compilations of soil and vegetation monitoring data are presented in Tables 3-8 and 3-9, respectively. As previously discussed in Section 3.2.1, the average of on-site radioactivity analytical values for soil and vegetation are similar to the average of off-site values.

LOCAL AGENCIES NOT INFORMED

DAILY NEWS ARTICLE MAY 14,1989

Regional water board investigators said they were never told about nuclear facilities at the site

DAILY NEWS - MAY 17, 1989

Richard Baldwin, air pollution control officer states "No one for the district has been up there since 1984. I don't know what they're doing."

DAILY NEWS MAY 18,1989

1. E.P.A. wasn"t aware of Rocketdyne's nuclear work
Adam S. Ng, private consultant for EPA said he was not told that Rocketdyne was a research facility for nuclear reactors

2. Jim Marxen, spokesman for the state Superfund also said his investigators were not aware of radioactive material at site

DAILY NEWS JUNE 28,1989

The Lab's nuclear activities and radioactive contamination at the site, have not been scrutinized by the agency, EPA officials stated.

DAILY NEWS JULY 2, 1989

State Health Dept. officials say agencys toxic chemical and radiation division kept information separate, no oversight with facility

Officials have only partial answers on accidents or disposal of radioactive materials

Water board and health officials knew nothing about burn pit until DOE survey

LA TIMES SEPT.4, 1989

Toxic substance control div. of the state Dept. of Health Services knew nothing of Rocketdyne's nuclear work

DAILY NEWS OCT.29, 1989

State Regional Water Quality Control Board, federal Nuclear Regulatory Commission and the EPA all have asked Rocketdyne for a full accounting of how the spills occurred.

DAILY NEWS (MISSING DATE)

Regional Water Quality Control Board demanded full disclosure of toxic and radioactive contamination problems. Water quality officials have overseen a massive ground-water cleanup program but they said the company did not tell them of ground water and radiation contamination problems.

DAILY NEWS NOV. 6,1989

Officials with the U.S. EPA, state Toxic Substance Control Div. and Water Quality Control Board expressed surprise at the extent of environmental problems at the lab.
Toxics and water quality officials said they had been unaware that up to 16 nuclear reactors had been operated

QUOTES WHICH BROUGHT CONCERN

ENTERPRISE ARTICLE MAY 16,1989

Moorpark Planning Commissioner and Rocketdyne employee expressed concern over the water quality of local wells and stated publicly he believed an investigation was warranted

DAILY NEWS MAY 19,1989

State health departments Toxic Substance Control Div. investigators were stunned by report survey finding 10 areas of toxic and radioactive contamination. State inspectors have visited the facilities many times over the years but were unaware of the extensive nuclear research operations Mary Osborne, inspector "The company officials didn't mention it (their nuclear activities). There was no information that led me to believe there was any radioactivity on site."

DAILY NEWS MAY 21,1989

Rocketdyne Division did not misstate the truth. The company just did not tell them what was going on as it should have, said representatives of the Regional Water Quality Control Board and state Department of Health Services.
Department of Health, Toxic Substance Control added: " Had we known that radioactivity was a problem, I am sure that our approach to the toxics would have been different."

DOE survey quote. "Because radioactive and non-radioactive wastes were probably buried and released together, but avoiding radioactive areas, the sampling program probably also avoided non-radioactive areas."

DAILY NEWS MAY 28,1989

James D. Werner, "The DOE is not a regulatory agency. It's mission is to build nuclear warheads and do other energy research. It's the role of the EPA to do the regulatory work." They didn't know what was going on.

Quotes which brought concern

DAILY NEWS MAY 29,1989

SHOOTING AT OLD LAB CANISTERS
Rocketdyne spokesman said the company has a general idea what it inside the unlabed cylinders based on their size, shape and location on the site.
Deputy Chief, Bob Holaway, Ventura County."If they don't know what's in them, how do they know what will happen?"

DOE report, "Although this method may have allowed workers to remain at a safe distance from the containers containing reactive substances when they were opened, it did not facilitate capturing the contents, These contents appeared to have included reactive metals and solvents."

DAILY NEWS JUNE 2, 1989

Jim MARXEN, spokesman for state's Toxic Substance Control Div. said toxic inspectors did not ask questions about the nuclear research areas because contamination there wasn't obvious. "There are no signs to say what things are or that say, 'Danger Radiation' It's gigantic up there, All the buildings look like old buildings. The burn pit looks like a field with grass on it. There's nothing to distinguish it."

DAILY NEWS JUNE 5, 1989

Tony Adduci, site manager for DOE said some of the nuclear material leaving the site was plutonium, which is extremely high in radioactivity. There were problems finding a suitable canister to transport the plutonium because of its high radioactivity. The containers found are safe and transportation of the nuclear materials poses no threat to the public. "You can walk up and kiss the cask if you want to." he said.

NRC spokesman Greg Cook, "They are looking for business, they have a facility with special abilities."

LA TIMES JUNE 18,1989

Steve Lafflam, environmental unit manager of Rocketdyne, "We don't have any reason to believe there's any radioactivity but we haven't looked." "Rather than say we didn't look, because of the attention, we will look.

there was only one fire department on the Hill, waste from Areas I - III sometimes went to the B/886 Sodium burn pit, and Area IV waste sometimes went to Area I.

4.5.2 Findings and Observations

4.5.2.1 Category I

None.

4.5.2.2 Category II

None.

4.5.2.3 Category III

1. There are approximately 10 areas at SSFL/Area IV where hazardous and/or radioactive substances resulting from DOE-related activities have or may have been disposed of, spilled, or released. These areas constitute actual and potential sources of soil and/or groundwater contamination. None of the areas have been adequately characterized.

   Each of these areas is discussed below.

   a. B/886 Former Sodium Burn Pit Area. The B/886 Former Sodium Burn Pit is a potential source of surface water and groundwater contamination and an actual source of soil contamination. It was used from the early 1960s through the 1970s for disposal of chemical waste, including solvents, metals (including Na and NaK), and some radioactive wastes. The Former Burn Pit Area is located in the Northwestern edge of Area IV outside the DOE-optioned land and occupies approximately one acre. Flammable chemicals were poured into open pits and burned. Reactive metals were placed into a concrete pit of water or washed and reacted on a steel-plated pad using a steam lance. Unauthorized radioactively-contaminated equipment was buried in trenches and scattered on the surface. In addition, according to the Phase II report, "occasionally, firearms were used on vessels to 'safely' open containers to the atmosphere" (Olson et al., 1987, p. 10). Although this method may have allowed workers to remain at a safe distance from the containers containing reactive substances when they were opened, it did not facilitate capturing the contents. These contents appeared to have included reactive metals (e.g., Na and NaK), and solvents (e.g., TCE).

DAILY NEWS JULY 2, 1989

Rep. Elton Gallegly, criticized the EPA as being insensitive to "the Human needs of our communities"

DAILY NEWS JULY 24, 1989

Rep. David E. Skaggs, D-Colo. whose district included Rocky Flats speaking of Rockwell
"There has been a pattern of at best dissembling and at worst outright deception over the years and the people's mistrust is well founded. The first step that they need to take in restoring credibility is to admit that they don't have any. The second step is admitting that they have got to concede to and outside authority with honest to goodness environmental compliance powers."

Elton Gallegly, "It's a classic case of unchecked bureaucracy These are the types of problems that can occur. It cultivated mismanagement and ineptitude .

Energy Secretary James D. Watkins, "For over four decades virtually all incentives and awards have been coupled to production much more so than all other considerations combined. So now years of inattention to changing standards and demands regarding the environmental safety and health are vividly exposed to public examination almost daily."

John Arlington, Chief counsel for the House Subcommittee on Transportation and Hazardous Materials. "We're faced with the fact that we have a department, the DOE whosefar-flung operations are out of control. This place has been accountable to nobody.'

DAILY NEWS AUGUST 2, 1989

James D. Watkins, Energy Secretary, " If graded for quality control, we wouldn't pass."

DAILY NEWS AUGUST 3, 1989

One DOE official, the problems at Santa Susana were purposely exaggerated to get "as Big a piece of the pie as possible"

Agency officials in Washington called problems at the Santa Susana site "acute"

DAILY NEWS SEPT. 1, 1989

Hank Yacoub, water quality board engineer stated, "the nuclear research site was little known to state regulators before the May disclosures.

DAILY NEWS SEPT.3, 1989

James D. Werner stated, " I asked them over and over and over again, I cannot tell you how many times, "Are there any other (contaminated) areas that you know about?" and the answer was, "I don't know" "

DAILY NEWS OCT. 29, 1989

EPA radiation specialist Gregg Dempsey, "Rocketdyne does not have a good'handle' on where radiation has been inadvertently or intentionally dumped on site.Most of the evidence on site spills is incompletely documented or anecdotal."

DAILY NEWS NOV.30, 1989

Judge Bloch stated" Rockwell should file...a statement concerning the factual accuracy and the adequacy of the on-site emergency plan originally filed as part of it's license application."

Ross Scarano, director of the NRC's radiation safety div. in regard to emergency plan submitted "They basically did a sloppy job not taking out the material that was relevant to the De Soto site.

DAILY NEWS DEC. 14, 1989

Assemblyman Richard Katz stated, "Whenever you have the DOE involved, they have given companies the impression that you can do whatever you want and we'll coverfor you." "I'm confident that there's enough heat on everyone now that people are doing what ought to be done."

Rich Vaille, assistant director of hazardous waste management for the EPA Region Nine, " There have been very low levels of radioactive contaminants found, but it's just one more contaminant to be dealt with." "The important thing is that the contaminants on site don't represent any severe health threat."

Assemblyman Richard Katz, said he believes the DOE shielded the company from state water quality investigators.

LA TIMES DEC. 15, 1989

Jim Ross, LA regional office of state Water Quality Control Board,"But with ground water flowing toward the edge of the property, some tainted water probably has seeped off the site."

ENTERPRISE DEC. 15, 1989

Jim Hartman, DOE environmental team leader, said "There may be some contamination below the surface of the ground that hasn't been fully characterized.

Previous surveys for contamination at 25 DOE facilities at the SSFL focused almost exclusively on surface conditions, without checking for possible underground contamination. Most of these facilities discharged potentially contaminated wastes into leach fields, but few of these leach fields have been studied for radioactive contaminants. Also there are other facilities and areas where radioactive materials been assessed for contamination.."For these reasons, it is ORAU's opinion that the extent of radioactive contamination on the SSFL DOE property has not yet been thoroughly determined." report concludes. Report by environment survey Energy Environment Systems Div. of Oak Ridge Associated Universities

DAILY NEWS DEC. 15, 1989

Jim Ross, senior engineer for the California Regional Water Quality Control Board. "There were two surprises" The concentration of the organics (toxic chemicals) was higher than we thought, with the potential to flow off the site greater than we thought."

Document reviews and discussions with Radiation and Nuclear Services staff indicated that the surveys concentrated on surface conditions and only minimal information is available on subsurface conditions at most of the sites. Prior to installation of the site sewer system, many of the facilities had leach fields to which potentially contaminated liquid wastes could have been discharged; with only a few exceptions, radiological conditions of these former leach fields have not been determined. Subsurface contamination is also possible in the vicinity of the Old Sodium Burn Pit, the RMDF and associated areas such as the catch basin, and other facilities where surface contamination has already been identified. There are other facilities and land areas where radioactive materials were previously used, but which were not included in the 1987 and 1988 survey project. For these reasons it is ORAU's opinion that the extent of radioactive contamination on the SSFL DOE property has not yet been thoroughly determined. It should be noted that the environmental monitoring program at SSFL has not identified any evidence of offsite migration of radioactive contamination in surface runoff or groundwater.

The San Francisco Operations Office of DOE has directed Rockwell to prepare a complete listing of the facilities and sites, where radionuclides have been used at SSFL and to provide copies of documentation which has been developed for those areas.

SUMMARY

At the request of the DOE's Division of Facility and Site Decommissioning Projects, the Environmental Survey and Site Assessment Program of Oak Ridge Associated Universities performed a review of the radiological monitoring program at the Santa Susana Field Laboratories Area IV site during September and October 1989. The review consisted of discussions with SSFL staff, document reviews, facility visits, and limited radiological monitoring. Findings of this review identified no evidence of radiological conditions which pose an imminent threat to public health or the environment. The radiological monitoring program has a strong basic foundation of capabilities in its staff, equipment, and procedures. There are aspects of the program which should be

To the north of the RMDF there is a land area which was inadvertently contaminated with Cs-137 and Sr-90, due to an accidental release to the facilities leach field and a surface spill from a waste treatment operation. Cleanup was performed in 1978; however there are remaining small areas of surface contamination and residual contamination in cracks in the bedrock. Ambient gamma levels in this area were elevated due to the ongoing RMDF operations. Several small isolated locations of surface radiation, several times the background level, were identified near the old leach field; because of the rugged terrain and limited time for the survey, no monitoring was conducted on the hillside between the RMDF and the leach field. Of the known or suspected contaminated facilities at SSFL, this area is the nearest to the site property line.

Summary of Independent Monitoring

Results of the limited independent monitoring were consistent with the earlier findings of Rockwell and EPA. They also indicate that the Rockwell monitoring program is capable of identifying significant areas of residual radioactive contamination. Although monitoring at two of the sites (the Old Conservation Yard and the T028 facility) indicated that remediations at these sites have likely been effective in reducing residual activity to within the applicable DOE guidelines, small areas of contaminated soil may still be present at the T064 facility.

Status of Site Radiological Conditions

In 1985, SSFL initiated a project to identify facilities in Area IV, which might be contaminated, based on use history, known incidents, and/or previous monitoring information. Twenty-five facilities were identified, and radiological surveys, conducted during 1987 and 1988, confirmed that residual contamination at six of these facilities, was above the current DOE decommissioning guidelines. Rockwell has performed remediation on several of these facilities and has developed a plan to address the remaining facilities, identified during that survey, between now and FY 1994.

NEIGHBORHOOD CONCERNS

DAILY NEWS ARTICLE MAY 14,1989

1. Jim Werner stated no way of telling if there's been migration off the site.
2. Sodium burn pit contaminated with radioactivity, solvents and heavy metals "Real Nasty Stuff"
3. Building 59 having contaminated ground water
4. Covered with dirt and asphalt over radioactive contaminated bedrock.

DAILY NEWS MAY 17,1989

1. Lists of incidents at the facility
2. Condition of Sodium Burn Pit
3. Contaminated Facility listing
4. Chemical contamination- trichlorethylene

DAILY NEWS MAY 21,1989

Rockwell International is 17 months behind schedule in completing a state mandated inventory of toxic and radioactive materials, partial inventory sent a month ago although the company did not mention nuclear materials.

DAILY NEWS MAY 24, 1989

14 Private water wells tested and none of the readings were alarming, but several were above the state safety standards.

DAILY NEWS JUNE 10, 1989

EPA relied on Ventura County Air Pollution Control District to write permits that requlate airborne release of contaminants but the county does not monitor for radiation only Rocketdyne

Article of Rocky Flats brought great concern because Rocketdyne officals told our Homeowners group when the spoke to us that they used the same management as at Rocky Flats. They spoke to our group on June 5 before story broke.

LA TIMES AUGUST 8,1989 Pat Coulter,Rocketdyne said Rocky Flats and SS managed by different divisions and no connection between them. We were told different (see above note)

3.2.4 Findings and Observations

3.2.4.1 Category I

None.

3.2.4.2 Category II

None.

3.2.4.3 Category III

1. Known and potential on-site soil contamination. There are at least two areas where soil is known to be or may be contaminated with radionuclides, organics, metals, or other hazardous substances. A description of each area and the known or suspected contamination is presented below.

   a. Old Sodium Burn Pit/Building 886 - The operation of this facility during the 1960-1970s time period for cleaning and disposal of sodium-contaminated components, disposal of other activated metal equipment, and disposal of various organic compounds has resulted in soil contamination at and near the facility. Recent investigation of the area for the CERCLA Program Phase II - Site Characterization (Olson et al., 1987) revealed soil contamination in the shallow subsurface soils in an area covering approximately 4,650 sq. meters (50,000 sq. ft.). The soil contamination was found to be principally volatile organic compounds, metals, oil and grease, PCTs, PCBs, terphenyls, and biphenyls. Table 3-10 lists soil sample concentrations resulting from that investigation. Because of the possibility that radioactive wastes may have been buried there, soil samples were screened in the field for radioactivity.

   Any samples indicating radioactivity were not taken to the laboratory for analysis. During a previous investigation and cleanup attempt in 1980, one area was found to be radioactively contaminated by a piece of buried equipment which was removed from the site. The piece of "pipe-like junk" registered greater than 3000 µR/hr (Lang, 1980) at the surface. Other meter readings taken of a dark sediment layer in the lower pond area generally ranged from 20 to 50 µR/hr. A later study for radioactivity was performed by

c. Off-site groundwater contamination may exist, but be undetected at the off-site sampling locations. The four off-site monitoring locations northwest of Area IV consist of artesian springs or wells of unknown construction. These wells, although convenient, were not designed, constructed, or located to be monitoring wells. Their location, unknown depth, and probable lack of proper construction materials and methods makes them indefensible as adequate sampling points.

2. Groundwater contamination. Based on the available groundwater monitoring data there are at least three areas of groundwater contamination in Area IV. These areas appear to be related to past DOE activities. The areas are discussed below.

a. Old Sodium Burn Pit - The groundwater near the Old Sodium Burn Pit appears to be contaminated with volatile organic compounds. Well RS-18, (which has been dry at the time of quarterly sampling attempts until December, 1987) located approximately 105 meters (350 feet) northeast of the facility has revealed shallow groundwater to be contaminated by chloroform, 7 µg/l; 1,2-dichloroethane, 24 µg/l; 1,1- dichloroethylene, 33 µg/l; trans-1,2-dichloroethylene, 10 µg/l; 1,1,1-trichloroethane, 20 µg/l; and trichloroethylene, 660 µg/l (GWRC, 1988). No analyses for radioactivity were performed. The Old Sodium Burn Pit is suspected by the Survey team to be the source. Three of the compounds detected: 1,1-dichloroethane, 1,1-dichloroethylene, and trichloroethylene exceed California State Action Levels of 20, 6, and 5 µg/l respectively.

The area referred to as the Old Sodium Burn Pit or the "Burn Pit" occupies approximately 4,650 square meters (50,000 sq. ft.) on the north side of Building 886. The facility consisted of a treatment area with a concrete sump, an upper pond, a lower pond, and the nearby surrounding area which was used for lay-down or burial. It was used extensively during the 1960-1970 time period for disposal of combustible materials such as sodium, NaK, and kerosene (Olson et al., 1987). Investigative trenching as part of a Phase II CERCLA investigation performed by a consultant to the site, revealed soil contamination consisting of organic solvents, diesel fuel, and oil and grease, PCBs, PCTs, Terphenyls, and Biphenyls (Olson et al., 1987). See Finding 4.5.2.3.1.a.

b. Well RD-7 Area - The groundwater in the vicinity of Well RD-7 is contaminated with volatile organic compounds. Analyses of groundwater samples collected from Well RD-7 revealed contamination from trans-1,2-dichloroethylene, 3 µg/l; trichloroethylene, 130 µg/l (maximum); and toluene, 13 µg/l (maximum) (Dickens et al., 1987). No analyses

surface. Exploratory trenches have been dug, and most contaminated equipment has been removed from the ground surface. Groundwater and soil contamination has been detected.

4.5.1.2 B/059 Former SNAP Facility

The basement of the B/059 SNAP facility is a potential source of groundwater contamination. The basement contains sand and water contaminated with Co-60. Water in a french drain surrounding B/059, sampled through a standpipe, contains chlorinated organics, including trichloroethylene (TCE) and tetrachloroethylene (PCE).

4.5.1.3 B/021, 022 RMDF Leachfield

The RMDF leachfield was contaminated with radionuclides in the early 1960s when a tank valve was accidentally opened. The tank contained radioactive wastewater being held for treatment and solidification. In 1978, the leachfield was excavated to bedrock and backfilled. Residual radioactivity was found in the bedrock cracks, presumably from wastewater percolation, and the cracks were filled with asphaltic tar. No nonradioactive parameters were analyzed during the cleanup. No groundwater monitoring has been performed.

4.5.1.4 Old Conservation Yard

Aerial photographs of the Old Conservation Yard shows that hundreds of drums and equipment were stored there through the 1960s and 1970s. No analytical or inventory information was available on the contents of the drums. Leaks and spills were likely in an area with no containment and no protection.

4.5.1.5 B/056 Landfill

The B/056 Landfill is a potential source of groundwater contamination because of the disposal of drums of wastes, some of which were hazardous. These drums were found on the top of the landfill and at the bottom of the slope. No inventory is available on the waste placed in the landfill, but approximately 90 drums were removed from the surface of the landfill in the 1980s, and several dozen empty drums were found at the toe of the landfill slope. (The previous history of these drums is unknown.) The landfill was used as a loose fill area from construction and excavation activities, according to SSFL personnel. A single groundwater monitoring well (RD-7), presumably located upgradient of the landfill, is contaminated with up to 130 ppb of trichloroethylene (TCE) and other volatile organics.

4.5.1.6 ESADA Chemical Storage Yard

Approximately 50–100 drums were stored in the ESADA Area in the 1970s. SSFL personnel indicated that at times drums of alcohols and drums of sodium were stored there. No records other than aerial photographs are available on the material stored there.

4.5.1.7 B/100 Trench

The trench was used during the 1960s for disposal of construction debris and possibly hazardous substances. No information was available on this trench except from photos.

4.5.1.8 Southeast Drum Storage Yard

Photos from the early 1960s show an area on the southeast side of Area IV where approximately 50 drums were present.

4.5.1.9 New Conservation Yard

The New Conservation Yard is across the Service Area Road to the south of the Old Conservation Yard and has been used for storage of used equipment and drums since the late 1970s. Prior to salvage of stored materials, leaks and spills of hazardous substances may have caused soil contamination.

4.5.1.10 Area of B/133 Sodium Burn Facility

Equipment was stored at the current B/133 sodium facility for 20 years during the 1960s and 1970s, according to aerial photos and interviews with SSFL personnel. Recent soil analyses shows a pH of 10–11 at B/133. No other analysis has been performed yet.

In addition to these actual and potential hazardous-substance release locations, identified in 4.5.1.1 through 4.5.1.10, one additional area at SSFL appears to have received waste and flammable solvents and waste oils (for fire training exercises) from DOE-sponsored activities. This area is the Area I Burn Pit, located in the Eastern Section of SSFL near the CTL III test stand. This area is not on DOE controlled property. Rockwell performed a surface cleanup of this area in 1983. No site specific groundwater monitoring has been performed. According to SSFL personnel interviewed, Area IV waste rarely went to Area I, except for occasional fire training prior to the merger of AI and Rocketdyne Protective Services Department (including Fire Department) in 1970. After 1970 when

The Burn Pit area, which is bounded on the south and east by dirt access roads and on the north and west by large rock outcroppings, covers approximately 1 acre (50,000 ft²) (see Figure 4-3). There are four major sections of the Burn Pit area: (1) pool area, (2) upper disposal pond, (3) lower disposal pond, and (4) west burial site. The "pool area" was used for the initial staging of wastes and contaminated equipment. The pool is a 42-foot by 12-foot, 15-foot deep concrete pit. Adjacent to the pool is a 2-foot by 15-foot steel pad and a 15-foot by 6-foot blast shield made of 3/4-inch-thick steel. The blast shield was installed to provide protection to workers while removing sodium and NaK from equipment using steam lances. The steel pad protected the concrete from damage from the violent reactions of the sodium and NaK. Although the Burn Pit was surrounded by chain-link fence with a padlocked gate, the fence was partially torn down and there was easy access through a large hole in the side.

Exploratory trenches have been dug, and most contaminated equipment has been removed from the ground surface. Equipment retrieved from the test trenches was not completely removed from the site, and equipment found lying on the surface was not completely removed due to lack of resources. Groundwater and soil contamination has been detected. Some waste was removed in early 1980s (1980–1981), after the new sodium burn facility (B/133) was opened in 1978. No information was available on the amount or type of waste removed, when it was removed, to which location it was removed to, or on what basis the removal was initiated or ceased. Soil was sampled for radioactivity only, but not metals or organics. Cesium-137 was the most prevalent radionuclide at up to 700 picocuries/g. Approximately 20 cubic yards of contaminated soil were removed from one basin. This soil was not analyzed for hazardous constituents.

The only written documentation available regarding the 1980 activities at the B/886 Sodium Burn Pit is an Internal Letter from December 1980, which summarizes the radiation survey, soil sampling, and excavation (Lang, 1980). This letter refers to B/886 as the "old hazardous materials burn pit." According to Lang, "The contamination appeared to be stratified in a layer 8 inches below the surface in a block [sic] tar type substance. The dirt was excavated down to 2 feet after the removal of a piece of pipe-like material that appeared to be the source that was reading >3,000 µR/hour. Readings in the dark layer ranged to 100 µR/hour but were generally in the 20-50 µR/hour range. On December 4, 1980, after 1 inch of rain, the excavation completely filled and the dam between the upper and lower pond washed out allowing the run-off from the upper pond to run through the excavated area across the lower pond, and out into the road to follow

DAILY NEWS JUNE 11,1989

Disclosure of the federal criminal investigation at Rocky Flats has forced many public officials to re-evaluate the credibility of both Rockwell and the DOE

Rockwell also has come under strong criticism for its operation at Hanford Works. There were allegations that environmental problems were covered up by company officials.

DAILY NEWS JUNE 15, 1989 / L.A. TIMES JUNE 19, 1989

Articles on the routes used to transport hazardous-waste

DAILY NEWS JUNE 18,1989

Rockwell wanted to use Simi Valley sewer system but they said NO.
Rockwell proposed to discharge up to 3,064 milligrams per liter of dissolved solids into city sewers. 2,214 milligrams per liter above the maximum allowable limit. 584 milligrams per liter of chlorides, almost four times as much as the maximum allowable limit of 150, Sulfates proposed for discharge total 1,053 milligrams per liter 803 milligrams per liter above the maximum limit

DAILY NEWS JULY 2, 1989

Local, state and federal health and environment officials reverse policy to allow Rocketdyne self regulation
State health department officials say that the agency's toxic chemical and radiation divisions kept their information separate and did not coordinate oversight of the facility

DAILY NEWS JULY 7, 1989

Radioactive "hot spots" up to 200 times background levels found last year in soil near a septic system leach field on a slope overlooking Simi Valley, slightly downhill from a major radioactive material disposal facility, where nuclear wastes have been packaged for shipping for more than 20 years

Neighborhood concerns

DAILY NEWS JULY 19, 1989

First of 17 wells drilled to find flow of ground water under burn pit and to monitor contamination

DAILY NEWS JULY24, 1989

Report prepared by the DOE's Inspector General found these problems
Energy department managers and key employees have not been adequately trained.
Reports on environmental problems and violations were inaccurate and filed late.
Federal managers are still reluctant to force companies that operate the plants for the government to comply with federal environmental laws

ENTERPRISE JULY 29, 1989

Low levels of the chemical toluene, a compound of gasoline, have been found in two wells at private homes on Woolsey Canyon

LA TIMES AUGUST 2, 1989

No decladding has been done there since 1986 but the work could resume in the future.
EPA report made it clear that more nuclear work had taken place at the lab than the public knew

ENTERPRISE AUGUST 2,1989

A study by the state Environmental Affairs Agency revealed the Rocketdyne plant is the second in the county when it came to emitting TCA into the air

DAILY NEWS AUGUST 3, 1989

DOE Stated radioactive and chemical contamination at SSFL could cause "near term adverse impacts" to the public health and the environment if not cleaned up within the next several years

DAILY NEWS AUGUST 13, 1989

Rocketdyne removed 1,300 cubic yards of dirt and used a jack-hammer to go through 10 feet of bedrock before giving up and capping the bedrock with asphalt and fresh soil

for eventual reprocessing by removal of the metal cladding and thermal bonding material, cleaning and repackaging of the fuel slugs, and shipment of the fuel for reprocessing.

Radioactively contaminated liquid wastes are collected in a 3,000-gallon waste tank in the Holdup Tank building. Most highly contaminated liquid wastes would be absorbed or solidified in the cells at the time of generation. Thus, most of the tank's contents would consist of water used during contamination. A weir box collects large particles prior to their entering the holdup tank. In Cell I, highly acidic and basic solutions are used. Coarse particles from this cell are separated in a 5-gallon tank prior to release to the holdup tank. All liquid wastes from the holdup tank are sent to the RMDF (Radioactive Materials Disposal Facility) for solidification, storage, and packaging for shipment for disposal at off-site facilities.

At the time of the Survey, the Hot Lab was inactive and decontamination was being planned. Decontamination was to take place in such a manner that the facility could be reactivated. Surface contamination will be removed by techniques such as electropolishing of internal surfaces of pipes to allow equipment to be decontaminated but still left in place for possible future use.

Radioactive Materials Disposal Facility (RMDF)

Handling of both high-activity and low-level radioactive wastes and materials, including treatment and storage, takes place at the RMDF. The RMDF consists of a complex of buildings, including

- Building 021, Radioactive Waste Processing and Packaging, and Equipment Decontamination.
- Building 022, Radioactive Material Storage Vault.
- Building 034, Administration and Engineering Offices.
- Building 044, Health Physics Services.
- Building 075, Packaged Radioactive Waste Ready for Off-site Shipment.
- Building 621, Radioactive Source Storage.
- Building 665, Emergency Supplier Storage.

Well RD-7 Area - The groundwater in the area near Well RD-7 is contaminated with volatile organic compounds. The extent of the contamination is unknown and uncharacterized. The California State Action Level for trichloroethylene of 5 ug/l has been exceeded. Although there is an old landfill near Well RD-7, the area has not been investigated well enough to determine if it is the source. There is also an abandoned excavation for Building 056 nearby that could also represent a potential source for the contamination. See Finding 3.4.4.3.2.c. Other potential sources also exist nearby in Area IV, and are discussed in Finding 4.5.2.3.

There are five areas of the site that are potential sources of groundwater contamination. The areas that are potential sources of groundwater contamination are as follows:

Old Landfill - An old landfill approximately 90 meters (300 feet) west of the Building 056 excavation was used for temporary storage of drummed wastes, and burial of other undocumented materials and spoil from the Building 056 excavation. Although Well RS-16 near this area has typically been dry, a deep well nearby, Well RD-7, has revealed groundwater contamination by volatile organic compounds. The source of the contamination is unknown, and may be the landfill. See Finding 4.5.2.3.1.e for details concerning this area.

RMDF Leach Field - An accidental release of radioactively contaminated water containing principally Sr-90 and Y-90 to the soil in and beneath a sanitary sewer leach field for the RMDF occurred sometime in late 1962 or early 1963 (Bradbury, 1978). Subsequently, the area was excavated and contaminated soil was replaced with clean soil. Contamination was traced during the excavation, and found to extend downward into joints and fractures in the Chatsworth Formation. The contaminated joint material was excavated as far as readily accessible with hand-held pneumatic tools, then sealed with asphalt. Decontamination efforts stopped at that point. There is high probability that contaminants reached the groundwater through infiltration from the leach field. This groundwater in the area of this potential source of contamination has not been investigated. See Finding 4.5.2.3.1.c for details concerning this potential source of groundwater contamination.

Old Conservation Yard - The area referred to as the Old Conservation Yard was used for storage of equipment and wastes. The area was cleared of materials, and regraded in the early 1980s. The storage of wastes in this area represented a potential for spills to have occurred along with subsequent groundwater contamination. No groundwater investigation has been performed in this area. See Finding 4.5.2.3.1.d for details concerning this potential source of groundwater contamination.

LA TIMES SEPT.1, 1989

Greg Dempsey, a health physicist and branch chief EPA said that a device called a liquid scintillation counter is required to test for tritium and that he was "rather surprised" to learn S.S. doesn't have one

LA TIMES SEPT. 4, 1989

Rocketdyne paid $90,000 to the family of William Lane who worked at Rocketdyne from 22 and died of leukemia in May86 at 49. Doctors for the company agreed that radiation exposure probably caused or contributed to Lane's death. Four months later after his death Marlin Remley,director of nuclear safety told San Fernando Valley members of the N.C.J.W. the company had "never had a radioactive injury, a permanent radioactive injury"

DAILY NEWS SEPT. 7, 1989

Rep. Anthony Beilenson said, "conflicting conclusions" about the facility "led us to believe the actual risk to human health from DOE's activities at SS has not yet been determined which, understandably, has left residents very fearful."

DAILY NEWS SEPT. 9, 1989

EPA criticized the company in a July 28 report for never testing for tritium in soil or water. The isotope moves rapidly through the environment and is a good indicator of whether radioactive contamination is spreading.

EPA found low levels oftritium in the ground water beneath SSFL

Provides first evidence that radioactive contamination has traveled from nuclear operations at the site to ground water

DAILY NEWS SEPT. 13, 1989

Plan released by the company urged rapid dismantling of several of the facilities to reduce the risk from contamination and eliminate the potential for unfavorable public and political reaction.

Bldg. 59 was rated a 7 for potential radiation exposure to workers. a 7 for potential problems if an earthquake or torrential rains should strike and a 5 for the structure's ability to provide long term confinement for radioactivity.

DAILY NEWS SEPT. 14, 1989

1983 company document rated the risks to workers and the nearby communities, as well as other factors--including political repercussions of public disclosure of the longtime contamination problem.

DAILY NEWS SEPT. 19,1989

JUDGE Block requested from Rocketdyne a complete list of contamination incidents or releases since 1969. A spokesman for Rocketdyne said he was unsure whether a complete list of spills and contamination incidents was available.

DAILY NEWS SEPT. 25, 1989

5 Unusual events reported by Rockwell, 1. overturned trailer used to ship nuclear waste, 2. a missing radioactive gauge 3. pages removed from a log book where radiation does to a worker were recorded were they only ones mentioned

ENTERPRISE SEPT. 29, 1989

Barbara Johnson,Pres. Susana Knolls Homeowners, stated "We consider ourselves under a great threat. The burden of proof should be on Rocketdyne."

DAILY NEWS SEPT. 30, 1989

Rocketdyne submitted a list of 24 chemical spills that have occurred since 1969 but no mention of radiological spill , list went to Judge Block

DAILY NEWS OCT. 1, 1989

16 buildings and 2 dirt areas remain contaminated and map with contaminated areas pointed out

DAILY NEWS OCT. 8, 1989

Richard Schwartz resigned as President of Rockwell, Rocketdyne Div. after 32 years with company but problems at the company not the reason

DAILY NEWS OCT. 13, 1989

Fire at Canoga Park Plant

ENTERPRISE OCT. 16, 1989

Assemblyman Terry Friedman "I hear that Rocketdyne may be one of the worst waste sites in the state of Ca.
He pointed out that the U.S. Air Force recommends a 15-mile buffer zone around facilities handling the sort of rocket fuels used in Rocketdynes rocket engine test operations.There are 500,000 people living in that buffer zone.

DAILY NEWS OCT.21, 1989

Request for license extension for processing enriched uranium at the site will be amended to seek renewal only through Oct. 20,90

DAILY NEWS OCT.22,1989

Rockwell stated "Our intent is to do no more nuclear work at SSFL. We're going to clean it up, return the area to it's pristine condition and make the facilities capable of being released for unrestricted use" WE HOPE

DAILY NEWS OCT.24,1989

Executives stated the company's position, is to seek no new nuclear contracts. "That doesn't mean the DOE won't come down and want to do additional work at the hill.
Experiments are being carried out under a contract with the DOE and Japan's Kawasiki Heavy Industry and Central Research Institute of Electric Power Industry. The project is also known as the actinide burner program, exporing ways to reduce the volume of high level radioactive wastes from nuclear reactors and other sources.

DAILY NEWS OCT. 29, 1989

In the late 70's a concerted effort to clean up the Burn Pit was launched. "The gate was locked and only documented items and materials were admitted. Occasionally, however, material of unknown origin was deposited at the site gate."
The survey covered 4 old salvage and storage yards, and found one mud puddle where contamination was above permitted levels. There was no explanation of how the mud puddle was contaminated.

DAILY NEWS NOV. 6, 1989

Clean up work planned the $7.3 million excavation of the Sodium Burn Pit, where the soil is contaminated with chemicals and radioactivity, and decontamination and decommissioning of up to 16 buildings.

DAILY NEWS NOV. 11, 1989

NRC spokesman Greg Cook, "If they're going to wrap things up in a year does it make sense for us to have 2 or 3 staff members working on this until the middle of 1990? " "It seems like if there's going to be a license renewal there's going to have to be some kind of safety evaluation report, but it's going to be a lot smaller than what they would do for the original application." WHY!!!

ENTERPRISE NOV.19,1989

Rocketdyne indicates it is planning to ship out 30 boxes of irradiated waste materials to Richland, Wash. in 1990 and 1991.Boxes are about 1.5 cubic yard. The total of 45 cubic yards is expected to be removed in 15 shipments

In July and August over a total of 21 days, 34 million gallons of treated water were discharged into Bell Canyon, eventually running into the LA River

Radiological water monitoring has also been expanded at the site. Test results from samples taken in March and June show levels above drinking water quality in 14 wells. In some cases levels were nearly 20 times the allowable levels, but Rocketdyne attributes the higher reading to high sediment.

DAILY NEWS DEC. 14, 1989

High levels of toxic chemicals have been found in ground water samples from new monitoring wells. The new data shows for the first time that chemical ground water contamination is a problem.

The company will have to dig additional wells to determine the extent of the toxicity.

Robert Ghirelli, executive officer of the Regional Water Quality Control Board, "It looks to be moving toward the (plant's) boundary lines off site, and we need to pin down where the leading edge of the plume is."

High levels of the toxic solvent TCE were found in more than 70 percent of the 17 new monitoring wells. TCE is thought to be a human carcinogen. The recommended state safety level to TCE in drinking water is 5 parts per billion. One well sample on the Rocketdyne site contained 1,200 parts per billion.

One well showed levels of toxic benzene at 2ppb.Benzene is a known human carcinogen, and the state safety level for that chemical is 1 ppb.

Report on water prepared by Phoenix based ground water Resources Consultants, Inc.

ENTERPRISE DEC. 15, 1989

Independent environmental studies show there may be significant "subsurface" radioactive contamination not previously identified for clean up.

Company officials have said the license is needed only for a single research project called TRUMP-S. However, the NRC license application, in it's current form, would allow for a broader range of operations, as long as they are within certain limitation, such as those restricting quantities of nuclear materials that can be used.

Dean Kunihiko, state liaison officer with the NRC Region V in Walnut Creek said Rocketdyne has not filed the necessary papers indicating it's intention to shut down the nuclear lab. The fact that the license application refers to a plan to shut it down is not enough.

Environmental survey prepared by the Energy Environment Systems Division of Oak Ridge Associated Universities in Tennessee stated there may be other old leach fields that received contaminated liquid charges but which haven't been identified or tested.

Previous surveys for contamination at 25 DOE facilities at the SSFL focused almost exclusively on surface conditions, without checking for possible underground contamination.

Reports included a prediction that chemically contaminated ground water under the 2,600 acre property may have migrated off-site toward the aquifer under Simi Valley. More monitoring wells need to be established at certain points off-site to establish the outer boundary of two plumes of water contamination pointing toward Simi Valley said Jim Ross, senior engineer with L.A.Regional Water Quality Control Board.

Assemblywoman Cathie Wright feels preliminary health studies need to be made to determine if a full-scale epidemiological study is warranted.

DAILY NEWS DEC. 15, 1989

One well tested near the boundary tested at 660 ppb for TCE

STAR FREE PRESS VENTURA DEC.15, 1989

Robert Ghirelli, executive officer , Regional Water Quality Control Board.said investigators hadn't expanded their ground water investigation to the DOE portion of the lab. "We haven't focused on that area because we had no indication that these chemicals were being used ther. But obviously, something is getting in that area from somewhere."

ENTERPRISE DEC.19, 1989

National Research Council reported finding that low-level exposures to radiation poses greater health risks than previously believed.'

DAILY NEWS JAN. 1990

Cathie Wright introduced urgency legislation to fund the health study of employees at Rocketdyne and residents living near-by

CONFLICTING REPORTS

ENTERPRISE AUGUST 3, 1989

DOE officials in Northern California reportedly said the problems characterized in the DOE's initial reports on the Rocketdyne site were intentionally exaggerated to get Congress to quickly allocate nearly $40 million to clean up.

DOE officials in Washington, D.C. said the problems at Rocketdyne are acute.

DAILY NEWS/ENTERPRISE AUGUST 4, 1989

Gallegy asked why Priority One designations if indeed there is no danger.
Priority One as defined by the DOE means that activities are necessary to prevent near-term adverse impacts to the workers or the environment

DAILY NEWS AUGUST 5, 1989

Rocketdyne said they gave 1987 reports of tests that revealed high levels of toxic solvents and low levels of radioactive cesium-137 in the pit to the DOE San Francisco managers office BUT A DOE environmental audit of the field lab dated April 1988 states that the EPA and the state health department were not informed

DAILY NEWS AUGUST 13, 1989

EPA report said radioactive soil had been removed from the Old Conservation Yard,a Rocketdyne dump site but no records available to confirm the clean up.

DAILY NEWS AUGUST 31,1989

Rocketdyne said they did good accurate testing but Greg Dempsey EPA Radiation Specialists said the procedure for testing soil for gross alpha and beta radiation "is not a good method for assessing environmental radioactivity" because the soil is heated as part of the test, turning some radiation to a gas that escapes detection.

DAILY NEWS NOV. 30, 1989

Officials of Rockwell made " apparently negligent or grossly negligent micstatements" in their emergency plan to handle potential accidents at the SSFL, a NRC commission judge stated. NRC and fire department officials said there is no ambulance provision and the company has agreed to review and revise it's emergency plan

DAILY NEWS DEC. 15, 1989

Paul Sewell, spokesman for Rocketdyne, said previous assurances that contamination had not spread off the 2,600 acre research lab referred to radioactive contamination only.

While reading the DOE Report for back-up on many of the newspaper articles, I found many examples of Rockwell's negligence. I also found examples of contamination which are of great concern to our neighborhood. I have attached copies of these pages and under-lined these areas.

for radioactivity have been performed. The California State Action Level for trichloroethylene of 5 µg/l has been exceeded.

The source of the groundwater contamination has not been investigated. Although a shallow well nearby, Well RS-16, has shown 1 µg/l of toluene on only one occasion, there is not conclusive physical or contaminant data to suggest a relationship between these wells or the old landfill located adjacent to them. Other nearby potential sources exist that are discussed in Finding 4.5.2.3.1.

c. Building 059 Standpipe Area - The groundwater in the vicinity of the Building 059 is contaminated with volatile organic compounds. Analyses of groundwater samples collected from the standpipe indicates the contaminants are principally tetrachloroethylene, 540 µg/l (maximum); trichloroethylene, 19 µg/l (maximum); and trans-1,2-dichloroethylene, 68 µg/l (maximum) (Analytical Chemistry [SSFL], Various Dates). Radioactivity has not been detected at levels considered above background for the groundwater. The California State Action Level for tetrachloroethylene, and trichloroethylene of 4, and 5 µg/l respectively have been exceeded. The detection of tetrachloroethylene is peculiar to this location, as it does not occur at other monitoring wells either in Area IV.

The source of the volatile organic contamination is unknown for this area, and has not been investigated. See Finding 4.5.2.3.b for additional information on potential sources for this facility.

3.4.4.4 Category IV

1. Monitoring well construction inadequacies. There are inadequacies in construction of the monitoring wells that may result in questionable data for the following reasons:

a. Wells installed in shallow soil zones are not sealed with bentonite seals as per industry accepted practice and Federal guidelines. The lack of a water-tight seal may allow surface runoff to enter the well by flowing down along the casing and into the well screen and filter area. A consequence of this would be possible cross contamination of the groundwater being sampled, particularly for these shallow wells that reflect seasonal water table changes thus occasionally yield only small volumes of water.

B-133 Sodium Burn Facility

Sodium metal is treated at the B-133 Sodium Burn Facility, which is also a permitted RCRA facility. The treatment takes place by oxidizing the sodium in an enclosed burn pan to produce sodium oxide. The sodium oxide fumes are absorbed by a liquid scrubbing system to produce sodium hydroxide. This sodium hydroxide is used by other Rockwell facilities as a treatment chemical. At the time of the Survey, SSFL was developing techniques for treating lithium hydride at the B-133 facility.

Drainage from the scrubber contained sodium hydroxide, was conducted to an underground storage tank (UST) in a pit. In early 1987, when the UST was being replaced, it was found that the soil in the pit was highly akaline. The alkalinity was attributed to leakage containing sodium hydroxide (see Finding 4.1.2.3.1). The burn facility was shut down at that time. SSFL intends to remove the contaminated soil, line the pit with concrete, and install a tank for collecting the sodium hydroxide effluents from the scrubber.

Area II Hazardous Waste Storage Facility

Nonreactive hazardous wastes generated by DOE activities at SSFL are either stored at the Area II hazardous waste storage facility or directly removed from the point of generation to an off-site facility (such as oil). This storage facility is in the NASA area, which is also managed by Rockwell. It was estimated by Rockwell that approximately 10 percent of the wastes stored at Area II are DOE waste, with the remaining 90 percent originating from NASA activities. Operational and permitting activities pertaining to the Area II hazardous waste storage area are the responsibility of Rockwell under its contract with NASA.

The Area II hazardous waste storage facility is not roofed and is exposed to the elements. The storage area did not have sufficient diked and paved storage area to allow proper segregation of incompatible wastes and sufficient aisle space for unrestricted access to containers. Site personnel reported that equipment used to move containers of hazardous waste was not adequate and that containers had been dropped while being moved. It was also reported that the dike was not impervious, as indicated by leakage of accumulated precipitation from some dikes. The surface area where drums are staged prior to movement to the proper storage compartment is not paved. The lack of a roof has lead to swelling of drums containing volatile organic wastes as a result of heating due to exposure. Site personnel stated that NOVs (Notices of Violation) regarding secondary containment integrity and storage capacity have been received from EPA and the State Department of Health Services. Rockwell has requested funding from NASA to build a new hazardous waste storage area (see Finding 4.1.2.4.3).

4.1.2.3 Category III

1. Sodium Burn Facility Sump. Releases of a caustic solution from the scrubber in the sump at the B-133 Sodium Burn Facility have contaminated the soil. The sodium burn facility is a permitted hazardous waste facility. The facility contains a tank that served as a reservoir for alkali metal hydroxide solutions from the scrubber of emissions from the burn-pan. During installation of a new tank, soil samples collected from beneath the old tank revealed high pH levels in the soil. Plans have been formulated for the removal of the contaminated soil in accordance with RCRA requirements. The sump will be rebuilt and a new tank installed with secondary containment.

4.1.2.4 Category IV

1. Waste Characterization Procedures. Formal procedures are not in place to determine whether evaporator sludge should be tested for hazardous characteristics if the influent to the evaporator changes. Currently, influent to the evaporator consists of decontamination solutions from the Hot Cell (when operating) and of radioactively contaminated groundwater infiltrating into the B-059 pipe chase room. RMDF personnel have decided not to test evaporator sludge for hazardous characteristics based on their judgment that the processes generating the radioactive wastewaters, which are evaporated, do not generate hazardous constituents. However, if characteristics of the radioactive wastewaters differed in the future from the existing streams, or if the existing waste stream characteristic changed due to process changes, the presence of hazardous constituents could be undetected. The slurry would become hazardous (hence a mixed waste) and thus inappropriately disposed of in a facility not suited for mixed waste disposal.

2. B-029 Cold Trap Storage. Cold traps containing sodium metal, which is hazardous because of the reactivity of sodium metal, are being stored in a non-permitted hazardous waste storage area. The traps are stored outside B-029, which is the RCRA-permitted reactive metals storage area. The sodium metal is contained and is not likely to be released to the environment. However, storage outside the permitted hazardous waste storage area is a technical violation of RCRA regulations. The outdoor storage is expected to take place only until sawing techniques are developed so as to cut the traps and allow the reactive sodium metals to be removed and/or treated.

3. Area II Hazardous Waste Storage. Inadequacies in the Area II hazardous waste storage facility may result in the improper storage or release of DOE-generated hazardous wastes. The Area II hazardous waste storage facility is owned by NASA and is operated by Rockwell principally for NASA wastes. Approximately 10 percent of the wastes in storage at one time may consist of DOE wastes. The hazardous waste storage facility does not contain sufficient impervious paved area with impervious dikes to allow proper segregation of incompatible wastes or adequate aisle spacing for unimpeded access to containers for inspection and movement. Waste containers are stored on unpaved surfaces. According to site personnel, the dikes in certain areas may not be impervious, as indicated by leakage of accumulated rainfall. Equipment used by site personnel for container movement is not adequate and, on occasion, waste containers have been dropped during movement. Since the storage facility is not roofed, these waste containers can be heated up by solar radiation. Facility personnel have reported that drums of solvents have bulged as a result of heating by the sun. Site personnel said that regulatory agency personnel have noted these deficiencies during inspections. Rockwell has requested funding from NASA to build a larger hazardous waste storage area and to utilize the existing site, after modification, for the initial storage and staging of hazardous waste containers.

4. Facility Closure. Closure of the Bowl Area and the Process Demonstration Unit (PDU) facility (removal of hazardous wastes and decontamination) has not been initiated according to the closure plan in the operations plan of the hazardous waste permit. The closure plan in the RCRA permit gives a schedule for closure of buildings and test facilities, beginning with submission of the closure plan to the permitting agency. The facilities in the Bowl Area and the PDU facility have been closed for more than 90 days. All liquid wastes and readily accessible solid wastes have been removed. However, there is no evidence that a closure plan has been prepared and final closure initiated.

4.2.2.2 Low-Volume Storage Areas

Approximately 70 drums containing various types of oils, a microbiocide, lithium hydride, various solvents, and other chemicals are stored in Buildings 007 and 008. Most of these substances have been stored for many years in metal and fiber drums at sites that are exposed to the elements and lack secondary containment. As a result, many of these drums are deteriorating, and there is evidence of past leaks or spills (see Finding 4.2.6.2.1).

Several 55-gallon drums containing solvents were on dispensing racks at four locations. These drums did not have drip pans to catch spills or leaks and could be a source of release of hazardous substances to the environment (see Finding 4.2.6.4.1).

4.2.2.3 Solvent and Chemical Storage Cabinets

Many solvent and chemical storage cabinets are located adjacent to buildings. Some of these cabinets were not adequately maintained and could result in the release of hazardous substances to the environment. In many cases, the cabinets were in a deteriorating condition, and the containers inside the cabinets were badly corroded or lacked labels. Some of the cabinets did not appear to have been used for several years (see Finding 4.2.6.4.2).

4.2.2.4 Improper Storage of Batteries

Two pallets of nickel-cadmium batteries were improperly stored. One pallet was stored outside B-143 and the second pallet was near B-100. The condition of the plastic casings indicates that these batteries had been exposed to the weather for some time (see Finding 4.2.6.4.3).

4.2.3 Polychlorinated Biphenyls

Written procedures for the disposal, storage, and labeling of polychlorinated biphenyls (PCBs) are included in the Rocketdyne Environmental Control Manual (Rocketdyne, 1986). These procedures define the management's policy and assign specific responsibilities concerning the use, storage, handling, identification, inspection, transportation, and disposition of PCBs. These procedures are designed for the Rocketdyne facility to be in compliance with the TSCA regulations (40 CFR 761).

All of the PCB and PCB-contaminated equipment have been retrofitted (fluid removed and flushed) or removed from the DOE facilities at SSFL. The last of the PCB items were retrofitted or removed by an outside contractor before the close of the 1987 calendar year. However, most of the retrofitting

4.2.6.2 Category II

1. Deficiencies at Chemical Product Storage Sites. There is the potential for the release of hazardous substances to the soil due to deficiencies in the chemical product storage Buildings 007 and 008. The Survey team observed the following deficiencies.

   a. Long-term storage - Some chemicals have been in storage for more than 10 years in metal and fiber drums containing a variety of hazardous chemicals in an area that is exposed to the elements. The utility of some of the chemicals as a product is questionable. See Tables 4-4 and 4-5 for the chemicals in storage, the quantity of each chemical, and the date purchased.

   b. Deteriorated drums - Several of the metal and fiber drums have deteriorated and one drum (the microbiocide) has corroded. There is also evidence of past spills at Building 008.

4.2.6.3 Category III

None.

4.2.6.4 Category IV

1. Deficiencies in Bulk Chemical and Fuel Storage Facilities. There is the potential for release of hazardous materials from bulk chemical and fuel storage tanks, as well as chemical dispensing sites. Although not regulatory violations, the Survey team identified deficiencies at the following storage and dispensing sites.

Area	Material	Capacity (gallons)	Problem
356	Sulfuric Acid	1,500	No secondary containment
356	Sodium Hydroxide, 20% Solution	1,500	No secondary containment
T-735	Fuel Oil	86,000	Soil dike
T-731	Fuel Oil	1,500,000	Soil dike
T-732	Fuel Oil	1,500,000	Soil dike
B/057	Fuel Oil	500	No label
B/358	Sodium Nitrite	55	No drip pan*
Plant Serv.	Kerosene	55	No drip pan*
Paint Shop	Paint Thinner	5-55	No drip pan*
B/457	Unknown	2-55	No drip pan & no label*
B/008	Various Chemicals and Oils**	79-55	No secondary containment and evidence of past spills

* 55-gallon drums were on dispensing racks.
** See Table 4-5.

2. Deficiencies with Chemical Storage Cabinets. The deteriorating condition of many of the solvent and chemical storage cabinets could result in the release of hazardous substances to the environment or a fire. These cabinets are rusted and without labels. Some of the cabinets do not appear to have been used for several years (e.g., cabinet at B-886). See Table 4-6 for a list of some cabinets, their location, and the deficiencies observed.

3 Improper Storage of Batteries. The improper storage of two pallets of nickel-cadmium batteries can result in the release of acid to the environment. A pallet of nickel-cadmium batteries was stored outside of B-143, and the other pallet was stored east of B-100. The plastic casings were extremely brittle from long-term exposure to the weather and cracked easily.

TABLE 4-6

DEFICIENCIES WITH OUTDOOR CHEMICAL STORAGE CABINETS
SSFL - VENTURA COUNTY, CALIFORNIA

Cabinet Location*	Deficiencies Observed
B-027	No label on some containers; container cracked; containers badly corroded.
B-032	No label on some containers; some containers corroded.
B-057	One container leaked.
B-062	Labels on containers in poor shape.
B-133	No label on one container; labels peeling; container corroded.
B-163	No label on a container.
B-826 (2 cabinets)	Appears abandoned; no labels on some containers; labels peeling; containers corroded.
B-463 (3 cabinets)	Containers corroded.
B-886	Containers corroded.
SCTI Building (3 cabinets)	Containers corroded; no label on some containers; door ajar on one cabinet.
Plant Services Building	Oil leaked from two containers; no label on one container.

Source: Survey team observations.
* Cabinets located outside of building indicated.
Note: This list is not intended to be comprehensive.

Airborne effluent controls for the RMDF are shown in Figure 3-2 and discussed in Section 3.1.2. Airborne dose assessments of this facility may be imprecise, as described in Finding 4.3.4.4.3, because of AIRDOS computer modeling difficulties. Process liquid effluents from the RMDF itself as well as from other on-site radioactive liquid effluents are concentrated in the evaporator located in Building 021 and then packaged for off-site disposal.

Building T-075 is the principal direct radiation source of environmental concern. Radioactive waste materials that have been packaged for off-site shipment are stored here, frequently in concentrated form. Despite added shielding, this building continues to be of concern from the standpoint of potential public exposure to direct radiation (see Finding 4.3.4.4.1).

4.3.3 Environmental Monitoring Program

Environmental monitoring for the purpose of determining site-related increases in environmental radioactivity is conducted for various media, including air, water, and soil. Airborne radioactivity is monitored in process stack effluents at the RMDF and the Hot Lab. Ambient air is also monitored for radioactivity, as described in Section 3.1.3. Surface water at SSFL is only monitored following rainfall, as there are no continuously flowing discharges as described in Section 3.3.3. As already discussed in Section 3.2, soil monitoring has been conducted at SSFL since 1954. Representative monitoring data have already been presented in these sections and will not be repeated here.

Airborne particulate emissions from the RMDF are well controlled, as described in Section 3.1. Particulate emissions from the RMDF are shown in Table 3-7 for the period 1981 to 1987. Dose to the general population is extremely low, as evidenced from the calculated total dose to the receptor population living within 80 km. In recent years this dose has ranged from a low of 0.0029 person-rem in 1982 to a high of 0.017 person-rem in 1985. The majority of emissions of airborne particulates occurs from the 130-foot stack located between Buildings 021 and 022 (see Figure 4-1).

Environmental soil, water, and ambient air samples are counted for alpha and beta radiation with a low-background, gas-flow, proportional counting system. The system is capable of simultaneously counting both alpha and beta radiation. Because the observed radioactivity in environmental samples primarily results from natural sources and is at low concentrations, constituent radionuclides are not identified for each sample. Dose calculations are performed conservatively, assuming that all alpha activity is plutonium-239 and all beta activity is strontium-90. Collected samples are also composited for gamma spectrometry of accumulated sample materials. The detection of significant levels of radioactivity would lead to an investigation of the radioactive material involved, the sources, and the possible causes (Moore, 1988).

term exposure to a member of the public is unlikely due to the rugged terrain along the north boundary and daily security patrols.

2. Penetrating Radiation Monitoring Program. The perimeter penetrating radiation monitoring program is deficient because formally approved and updated procedures are not available. Specific areas of concern include the following:

   a. Environmental TLD (Victoreen, glass-bulb type) handling procedures do not correspond to existing written procedures. For example, the calibration source currently used is not the one described in the written procedure, and the annealing furnace referenced in the procedure is no longer used.

   b. Calculations, assumptions, and other supporting data used to determine boundary dose and dose to the nearest resident are not formally documented. For example, source term, inverse square, and air attenuation calculations to determine the boundary dose are not presented in the environmental monitoring report or summarized in a report outlining these assumptions. Written integration of the site's Landauer (film badge) dosimetry program (for the purpose of measuring perimeter radiation), including QA requirements, has not taken place.

3. AIRDOS Calculations. AIRDOS-modeled population exposure and estimated dose information may be imprecise because of computer code difficulties. Specifically, the AIRDOS-version SSFL used at the time of the Survey would not run multiple source terms for all 80 km sectors and would not accept multiple dose conversion factors. Because of these deficiencies, site personnel must run the code repeatedly for various nuclides and sum the calculated doses external to the computer code. The Survey team believes site personnel are currently taking a conservative approach in favor of public safety, and doses are well below guidelines. However, multiple calculations external to the computer code increase the potential for errors in final calculated dose estimates (see Finding 3.1.4.4.1).

- Controls to minimize laboratory contamination
- Use of reagent and sample blanks
- Use of control charts
- Use of standard reference materials
- Use of blind replicates
- Use of spiked samples
- Participation in laboratory intercomparison programs
- Use of calibration standards

In general, the laboratory utilizes these quality control techniques with one exception. Spiked field samples were not being used at the time of the Survey (see Finding 4.4.2.4.1).

Spiked samples provide a measure of the accuracy of the analytical measurements and are an important aspect of a laboratory's quality assurance program. Although the laboratory participates in the DOE interlaboratory comparison program, a more frequent measure of the analytical accuracy is required than once every 6 months. Also, spiked samples provide information concerning any specific sample matrix effects on the analytical results. However, the laboratory is generating good quality data, as is demonstrated by the results of the semiannual DOE Environmental Measurement Laboratory Program and the biennial DOE Radiation Dosimetry Intercomparison Project.

Another shortcoming of the quality control program is the lack of procedures for confirming the analyst's calculations and entry of the results into the computer data base. This deficiency could result in errors becoming a permanent part of the data base and thereby decrease its reliability (see Finding 4.4.2.4.1).

The Rocketdyne Analytical Chemistry Laboratory

The Rocketdyne Analytical Chemistry Laboratory is certified by the State of California for the analysis of NPDES and hazardous waste samples. Most of the workload consists of environmental samples (75 percent), and the remaining analyses (25 percent) are in support of the test stands and engineering operations.

The laboratory has established an extensive quality assurance/quality control program based on the EPA guidelines (EPA Quality Assurance Management Staff Guidelines, QAMS Document, December 20, 1980, and the Handbook for Analytical Quality Control in Water and Wastewater Laboratories) that is designed to produce results that are scientifically valid, defensible, and of documented precision and accuracy.

sample logs, and analytical notebooks, as well as calibration and instrument maintenance records. The maintenance of the analytical balances and the infrared spectrophotometer is managed through service contracts. All standards and limited-life reagents are dated when received.

4.4.2 Findings and Observations

4.4.2.1 Category I

None.

4.4.2.2 Category II

None.

4.4.2.3 Category III

None.

4.4.2.4 Category IV

1. Deficiencies in QA Procedures for Radiological Monitoring. Environmental monitoring data may be less defensible as a result of the following quality assurance deficiencies observed at the Radiological Measurements Laboratory at the SSFL Site:

   a. Lack of formalized procedures for confirming the analyst's calculations and entry of results into the computer data base.

   b. No use of spiked samples on a routine basis for internal quality control (although the laboratory participates in the external test program of DOE/EML).

The Phase I and II reports focused on disposal sites for RCRA wastes in accordance with direction from DOE, rather than considering in detail all potential hazardous substance release locations. The lack of a complete CERCLA investigation is discussed in Finding 4.5.2.4.1.

This section introduces the actual and potential sources of hazardous substance releases to the environment. Section 4.5.2 provides more detail on these sources, which are listed in Table 4-9 and illustrated in Figure 4-2.

Little information was available on the historical waste generation and disposal practices at SSFL. A summary prepared in 1962 (Ferreri, 1962) indicated that Atomics International (AI) generated "213,000 gallons of radioactive (R/A) waste requiring special means of disposal" annually. The types of wastes generated by AI in 1962 are listed in Table 4-10. The 3,750 gallons of combustible oils appear to have been excluded from the 213,000 gallons tallied in the Interoffice Letter (Ferreri, 1962). The wastes were all disposed of off-site by Nuclear Engineering Company (NEC) for a total of $165,910 or an average of $0.78 per gallon. Approximately 3,750 gallons of combustible oil generated annually by AI were sent to the radioactive materials disposal facility (RMDF, described further in Section 4.3) at SSFL for disposal by NEC. (Despite its name, the RMDF does not dispose of radioactive waste, but rather concentrates aqueous wastes using evaporation equipment.) No information was available on whether the oil was treated at the RMDF or merely stored for disposal. Another SSFL document from November 1986 (Heine, 1966) indicated that oil was used on roads for dust suppression. The Radiation Safety standard established in 1966, however, set very strict limits on the permissible level of radioactivity in the oil spread on roads for dust control. The standard essentially prohibited the use of oil with any radioactivity greater than background. No information was available, however, on the activity prior to this 1966 standard.

The waste generation rate at SSFL has decreased significantly since the 1960s through the 1970s when activity at SSFL was at its peak. Table 4-10 shows the volume of waste generated during a period of higher activity at SSFL than present. No specific information is available, however, on nonradioactive hazardous waste such as solvents and PCBs.

4.5.1.1 B/886 Former Sodium Burn Pit Area

The B/886 Former Sodium Burn Pit was used from the early 1960s through the 1970s for disposal of chemical waste, including solvents, metals (including Na and NaK), and some radioactive wastes. Flammable chemicals were poured into open pits and burned. Reactive metals were placed into a concrete pit of water or washed and reacted on a steel-plated pad using a steam lance. Unauthorized radioactively contaminated equipment was buried in trenches and placed on the

surface. Exploratory trenches have been dug, and most contaminated equipment has been removed from the ground surface. Groundwater and soil contamination has been detected.

4.5.1.2 B/059 Former SNAP Facility

The basement of the B/059 SNAP facility is a potential source of groundwater contamination. The basement contains sand and water contaminated with Co-60. Water in a french drain surrounding B/059, sampled through a standpipe, contains chlorinated organics, including trichloroethylene (TCE) and tetrachloroethylene (PCE).

4.5.1.3 B/021, 022 RMDF Leachfield

The RMDF leachfield was contaminated with radionuclides in the early 1960s when a tank valve was accidentally opened. The tank contained radioactive wastewater being held for treatment and solidification. In 1978, the leachfield was excavated to bedrock and backfilled. Residual radioactivity was found in the bedrock cracks, presumably from wastewater percolation, and the cracks were filled with asphaltic tar. No nonradioactive parameters were analyzed during the cleanup. No groundwater monitoring has been performed.

4.5.1.4 Old Conservation Yard

Aerial photographs of the Old Conservation Yard shows that hundreds of drums and equipment were stored there through the 1960s and 1970s. No analytical or inventory information was available on the contents of the drums. Leaks and spills were likely in an area with no containment and no protection.

4.5.1.5 B/056 Landfill

The B/056 Landfill is a potential source of groundwater contamination because of the disposal of drums of wastes, some of which were hazardous. These drums were found on the top of the landfill and at the bottom of the slope. No inventory is available on the waste placed in the landfill, but approximately 90 drums were removed from the surface of the landfill in the 1980s, and several dozen empty drums were found at the toe of the landfill slope. (The previous history of these drums is unknown.) The landfill was used as a loose fill area from construction and excavation activities, according to SSFL personnel. A single groundwater monitoring well (RD-7), presumably located upgradient of the landfill, is contaminated with up to 130 ppb of trichloroethylene (TCE) and other volatile organics.

4.5.1.6 ESADA Chemical Storage Yard

Approximately 50–100 drums were stored in the ESADA Area in the 1970s. SSFL personnel indicated that at times drums of alcohols and drums of sodium were stored there. No records other than aerial photographs are available on the material stored there.

4.5.1.7 B/100 Trench

The trench was used during the 1960s for disposal of construction debris and possibly hazardous substances. No information was available on this trench except from photos.

4.5.1.8 Southeast Drum Storage Yard

Photos from the early 1960s show an area on the southeast side of Area IV where approximately 50 drums were present.

4.5.1.9 New Conservation Yard

The New Conservation Yard is across the Service Area Road to the south of the Old Conservation Yard and has been used for storage of used equipment and drums since the late 1970s. Prior to salvage of stored materials, leaks and spills of hazardous substances may have caused soil contamination.

4.5.1.10 Area of B/133 Sodium Burn Facility

Equipment was stored at the current B/133 sodium facility for 20 years during the 1960s and 1970s, according to aerial photos and interviews with SSFL personnel. Recent soil analyses shows a pH of 10–11 at B/133. No other analysis has been performed yet.

In addition to these actual and potential hazardous-substance release locations, identified in 4.5.1.1 through 4.5.1.10, one additional area at SSFL appears to have received waste and flammable solvents and waste oils (for fire training exercises) from DOE-sponsored activities. This area is the Area I Burn Pit, located in the Eastern Section of SSFL near the CTL III test stand. This area is not on DOE controlled property. Rockwell performed a surface cleanup of this area in 1983. No site specific groundwater monitoring has been performed. According to SSFL personnel interviewed, Area IV waste rarely went to Area I, except for occasional fire training prior to the merger of AI and Rocketdyne Protective Services Department (including Fire Department) in 1970. After 1970 when

its natural run-off pattern." Residual water from the excavation was analyzed and found to be within "allowable limits" (Lang, 1980). Background radioactivity was generally 5-10 μR/hour.

The Burn Pit area was used most extensively from 1960–1970 for disposal of combustible materials such as sodium, NaK, kerosene, and solvents. The two ponds, upper and lower, located below the pool, were used to react sodium-contaminated equipment. Several large pieces of equipment were left in the ponds and were covered with silt over the years. When some of these large pieces of equipment were retrieved, they were found to contain unreacted sodium; and the remaining equipment is assumed to be similarly contaminated. The earthen ponds were constructed by bulldozing a crude berm around a low-lying area, and cutting trenches through the berm to facilitate runoff.

The Burn Pit West area was located to the west of the disposal pool. Used components from the SNAP, OMRE, and SRE programs were found buried in the area to the west of the disposal pool during partial cleanup in the early 1980's.

Some preliminary removal and decontamination work has been performed. While scrap was being removed in 1980, nearby soil and the concrete disposal pool were found to be "radiologically contaminated above acceptable release limits" (Stafford, 1987, p. 2). At that time, the concrete disposal pool was drained and the walls were decontaminated. The pool has subsequently become partially filled with water. At the time of the Survey in May 1988 the pit was approximately 1/3 filled with brownish water. No information was available regarding the relative contribution from infiltration into the pit from perched groundwater through cracks in the sides and bottom compared to the contribution from runoff entering the top of the pit had been determined. If cracks in the concrete lining could allow water to seep in, then water could also seep out and cause groundwater contamination. No information was available on the water quality in the pit. After the 1980 findings, SSFL personnel subsequently found radioactively contaminated soil "over a large area of an unpaved section adjacent to the disposal pool" (Stafford, 1987, p. 2). A more extensive soil survey was being planned at the time of the Survey. The contamination discovered prior to the Survey was found to extend below the soil surface, but was not believed to be deeper than 2 feet. Until a more detailed soil survey could be completed, soil removal was limited to "hot spots." No radioactive contamination was found in surface runoff samples, but the samples were analyzed only for radioactivity and not for organics and metals.

Reliance on odor to select sampling sites is not effective and may have resulted in undetected contamination. Some contaminants such as heavy metals (e.g., mercury, lead, and chromium) do not have detectable odors. Also, for those contaminants that do produce odor, "olfactory saturation" and "overload" may result in inurement causing odors to be undetected. This phenomenon occurs when an individual who is exposed to odors becomes unable to smell because of an overloaded or saturated olfactory (sense of smell) system.

A Miran portable air analyses was used to monitor air contamination in and around the test trenches (except hydrazine, for which a draeger tube was used). SSFL personnel selected nine compounds for field analysis, based on the probability of detecting the compounds. According to the SSFL Phase II Report, "The relative likelihood of finding these compounds at either site was based on personnel accounts of personnel familiar with the operations of these areas while actively used." No records or information was available, however, on these "personnel accounts" (e.g., interview notes). In trench BPL-2, the following concentrations of the nine selected contaminants were detected:

Compound Analyzed	Level Detected (ppm)
Ammonia	40
Toluene	68
Tetrahydrofuran	40
1,1,1-trichlorbethane	N.D.
Trichloroethylene	N.D.
Methylene chloride	N.D.
Ethanolamine	22
Carbon tetrachloride	10
Hydrazine	0.5*

* The hydrazine level was detected using a Draeger colorimetric tube and is likely the result of positive interference from ammonia.

The soil analysis for volatile organic compounds (VOCs) in test trench BPL-2 showed the highest concentrations at a depth of 3.5 to 4.0 feet (see Tables 3-10 and 4-12). SSFL personnel observed high concentrations of carbon tetrachloride (500 mg/kg), 1,1-dichloroethane (430 mg/kg), 1,1-dichloroethene (90 mg/kg), Freon-TF (3,100 mg/kg), tetrachloroethene (1,200 mg/kg), toluene (800 mg/kg), 1,1,1-trichloroethane (1,840 mg/kg) and trichloroethene (740 mg/kg). The soil pH was very basic (9.5). The oil and grease concentration was found to be 3,600 mg/kg. At a depth of 5.5 to 6 feet in this trench, the soil pH was 10.4.

Soil analysis showed an elevated lead concentration (864 mg/kg) in trench BPW-3. This concentration is higher than the mean lead concentration between 7-700 mg (kg) listed by the State of California for the western United States (Department of Health Services, 1986). Dragun (1988) estimated the mean for the entire United States to be 10 mg/kg (Dragun, 1988).

The existing Total Threshold Limit Concentration (TTLC) for soil in California is 500 mg/kg, but D.H.S. has proposed to increase this lead TTLC to 3,000 mg/kg.

In test trench BPL-3, SSFL personnel found "some zirconium hydride sacrificial slugs, contaminated on the ends with 93 percent enriched uranium from the SNAP (Space Nuclear Auxiliary Power) program." No information was available on the soil contamination resulting from these radioactive components because no soil samples were analyzed in BPL-3, despite this finding. The reference to 93 percent enriched uranium does not presumably mean that 93 percent of the slug was composed of enriched uranium, but rather that the slug was contaminated with uranium and that 93 percent of this uranium was composed of the U-235 isotope and not the more commonly occurring U-238 isotope. Naturally occurring uranium contains only 0.7 percent U-235, and commercial reactor grade uranium contains 4 percent.

A "white, crystalline substance" (Olson et al., 1987, p. 50) was observed in test trenches BPU-3, BPU-4, and BPW-2 where five, two, and three samples were collected, respectively. No analytical results from any of these three test trenches were presented in the Phase II report. No information was available on the results of these analyses.

A monitoring well located down hill, and presumably downgradient, from the Burn Pit Area ("RS-18"), indicated contamination with several volatile organics, including 650 µg/l of trichloroethylene. See Section 3.4 for more details on groundwater monitoring and results. According to a recent DOE appraisal (Lavagnino, 1987), artesian wells used to supply water to cattle are located downslope of the Burn Pit, and a youth camp is located further east.

b. B/059 Former SNAP Facility. The basement of the B/059 SNAP facility is a potential source of groundwater contamination and has sand and water contaminated with Co-60 (see Finding 3.4.4.3.2.c).

products, grease, phosphoric acid, and asbestos. Because of the potential for groundwater contamination at the landfill, SSFL installed a groundwater monitoring well 4 years later in 1985 south of the landfill. The location of this well is probably upgradient of the landfill, and is therefore probably not useful for monitoring groundwater contamination from the landfill (see Section 3.4.2). This well was found to be contaminated with up to 130 ppb of TCE.

The text of the Phase II report says that "the landfill soil samples appear to be essentially free of contamination" (Olson et al., 1987, p. 18). However, a review of the analytical laboratory printouts included in an appendix revealed that oil and grease were found in the soil samples up to 1,100 mg/kg. This sample (LFR-3) was taken at the bottom of the slope of the landfill in a ravine. It was the furthest downstream away from the landfill of three samples taken at the bottom of the slope. Six test trenches were dug at the top of the landfill, but no analytical results were presented from these samples. The presence of odors appears to have been used as a criterion for whether or not to sample. The prudence and effectiveness of using this criterion are discussed in Finding 4.5.2.3.1.a.

During the trenching operation at the landfill, the air was monitored for nine selected contaminants using a Miran portable air analyzer (see Finding 4.5.2.3.1.a). No "significant air levels" of these nine contaminants were found in any of the test trenches at the landfill (Olson et al., 1987, p. 75).

f. ESADA Chemical Storage Yard. Approximately 50-100 drums were stored in the ESADA Area in the 1970s. The ESADA area is located on the western edge of SSFL/Area IV. SSFL personnel indicated that these drums contained alcohols and other products. No records other than aerial photographs are available on the material stored there. The site is currently used for a pistol target practice range.

g. B/100 Trench. The trench was used during the 1960s for disposal of construction debris and possibly hazardous substances. No file information was available on the inventory of wastes disposed of in this trench. According to SSFL personnel interviewed by the Survey team, the trench was used by on-site contractors for burning construction rubble and demolition debris. The B/100 trench is located in the west-central portion of SSFL/Area IV.

The only documentation available on this trench is from aerial photographs. The trench east of the B/100 building is visible in aerial photographs for at least six years, from 1961 until 1967. On January 27, 1961, a series of aerial photographs was taken showing the

trench east of B/100 (photos numbers SS A-4, SS A-6, SS A-10, SS-E, SS-I, SS-J, and SS-S). These photos show the trench to be stained a dark color compared to the surrounding soil. Construction debris is visible above the edge of the trench in these photos. An aerial photograph taken on September 14, 1962 (No. SS-113), shows drums in and alongside the trench. A high-altitude photograph taken in 1966 by Aero Services, Inc., and displayed in the conference room of the Plant Services/Maintenance Building (B/204) was used to determine the size of the trench. Using known building dimensions as well as the scale provided on the photo, the trench was estimated to be an oval approximately 75 feet long and 25 feet wide at its widest point. The trench had been backfilled and graded by April 29, 1969, when an aerial photograph (No. SS-283) was taken showing three tanks at the former trench location. By January 28, 1972 (No. SS-448CN), when a tower had been erected as part of the construction of the B/462,3 building, 23rd Street and 24th Street had been built on the former trench location.

h. S.E. Drum Storage Yard. Historic storage of drums in the southeast section of SSFL/Area IV may have resulted in releases of hazardous substances from leaking, spilled, or rusted-through drums exposed to the elements. Two aerial photographs (Nos. SS-60T and SS-35N) taken on March 14, 1962, show an area on the southeast side of the site where approximately 50 drums were stored. No other information was available on this drum storage area. The drums were not necessarily generated by DOE or DOE-predecessor agency activities. Although the storage area is clearly located in Area IV, it is relatively close to Area II, to which it is connected by dirt roads and not separated by fences.

The Survey team walked around the former drum storage location and found the remnants of what appeared to be an organized storage facility. Rusted steel fence posts surrounded the area. Several pallets were found lying on the ground in the weeds. A gulley ran along the south side of the former storage area, immediately north of the dirt access road. Several pieces of broken prefabricated concrete were found on the gulley, along with several steel pipes (1-inch I.D.) and a 5-gallon bucket half filled with a dried resin or paint.

i. New Conservation Yard. The New Conservation Yard may be a source of soil contamination. This yard, across the Service Area Road to the south of the Old Conservation Yard, has been used for storage of used equipment and drums since the late 1970s, prior to salvage. Leaks and spills of hazardous substances may have resulted in soil contamination. During the Survey, small areas of stained soil and dead vegetation were visible near the gate and near the edge of the fence on the inside perimeter.

j. Area of B/133 Sodium Burn Facility. The B/133 Sodium Burn Facility Area is a source of soil and potential groundwater contamination. Equipment was stored at the current B/133 sodium facility during the 1960s and 1970s. Recent soil analyses show a pH of 10–11 at B/133. No other analysis has been performed yet. The B/133 Facility is a RCRA-permitted facility built in 1978 (see Section 4.1.1.1). The B/133 facility is located in the northeast section of Area IV.

4.5.2.4 Category IV

1. The Site Has Not Performed a Complete CERCLA investigation. Failure to perform a comprehensive investigation may result in undetected contamination. SSFL personnel produced two primary CERCLA documents. These reports focused on disposal sites for hazardous wastes, in accordance with the guidance in the DOE Order. A more complete CERCLA investigation would include all potential hazardous substance release locations. During the two-week Survey, several new areas of potential contamination were discovered (e.g., the B/100 trench and the southeast drum storage area) by a cursory review of aerial photographs and files and by conducting a few interviews with veteran SSFL workers. Further systematic inquiry (review of aerial photos and records, and interviews with site personnel) may reveal information on other areas or more data on known areas of contamination.

$19.5 billion nuclear cleanup plan outlined

By MARK MARSHALL
Daily News Washington Bureau

WASHINGTON — Energy Secretary James D. Watkins presented a blueprint Tuesday for cleaning up contamination at the nation's nuclear sites, placing a $19.5 billion price tag on the plan's first five-year phase.

Watkins said the overall cleanup is likely to take 30 years or more.

"That will seem like too long to some people and unattainable to others, but we believe that is as close to accurate as we can get," he said in a speech before the National Press Club.

The five-year plan announced Tuesday will establish the "cornerstone" of a long-term cleanup program that will last well into the 21st century, he said.

"The implementation of this plan will go a long way toward gaining public acceptance of our ability to manage and operate DOE-owned facilities safely," Watkins said.

"Only through this difficult process will DOE, as an institution, finally begin to assume its proper role as a protector of the environment."

Under the $19.5 billion plan, DOE would spend $2.4 billion in the fiscal year that begins Oct. 1, and costs would exceed $4 billion a year by the mid-1990s.

The proposal covers environmental cleanup at 94 DOE-supervised nuclear sites in 19 states, including Rockwell International's Santa Susana Field Laboratory near Chatsworth.

A study by the Energy Department last fall predicted it would cost $55 million and take at least 20 years to clean up environmental problems caused by energy research at the Santa Susana facility alone.

Cleanup expenditures in the five-year plan must be approved by Congress, and Watkins' proposal of $2.4 billion for the upcoming year is significantly higher than the Bush administration's request of $1.8 billion, which the Senate increased to $1.9 billion.

Watkins sent a letter to members of Congress on Monday, urging them to support the additional expenditures.

He described the five-year plan as "a major milestone" that is necessary to "restore public credibility in the department's ability to operate safely its unique defense, research and test facilities."

James D. Watkins
Presents nuclear cleanup plan

Cost estimates for cleaning up the entire nuclear weapons and energy research complex range from $90 billion to $150 billion, and Watkins conceded Tuesday that "the cost will be high."

The most acute problems exist at the nation's 17 weapons production facilities, which came to a virtual standstill in the past year after disclosures of widespread safety and environmental problems.

Reactors at the Savannah River plant in South Carolina, for example, were shut down more than a year ago because of safety concerns. Similar shutdowns were ordered more recently at weapons plants in Fernald, Ohio and at Rocky Flats in Colorado.

The latter two facilities were raided last spring by the FBI and the Environmental Protection Agency, which are investigating health and safety violations at the plant.

As he has done several times since taking office in March, Watkins criticized DOE's past management and poor attitude toward maintaining a safe environment.

"If we graded for quality control, we wouldn't pass," he said, promising to be brave to hear "an open dialogue on environment, health and safety concerns."

DAILY NEWS

Rockwell lab reports 12 radiation mishaps

Firm admits 'mistakes' of fires, leaks, loss

By BETH BARRETT
Daily News Staff Writer

Rockwell International officials have documented a dozen accidental releases of radioactive materials at the Santa Susana Field Laboratory over the last 20 years, according to new information filed with the U.S. Nuclear Regulatory Commission.

The document, dated Saturday and released Monday, cited four incidents of fires or explosions, six instances where liquid contaminated with radioactivity was leaked, including one case where it may have gone off site, a truck accident and the disappearance of a small amount of strontium 90.

The document said there was no "adverse trend" and that the small number of "mistakes" have not been repeated because corrective action was taken.

State and federal officials previously had asked Rocketdyne, the Rockwell division that operates the nuclear facility three miles west of Chatsworth, for a full accounting of all spills of radioactive materials at the site. Community activists have challenged Rocketdyne's request of a 12-month NRC license extension to operate Santa Susana.

After initially saying all spills were too trivial to list, the company agreed Oct. 4 to comply with NRC Judge Peter B. Bloch's order to provide a list of radioactive releases at the Simi Hills nuclear test site.

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Date missing

Lab is site of 12 radiation accidents

ROCKWELL From Page 1

Concern about activities at Santa Susana has been heightened since the Daily News reported May 14 that a Department of Energy survey team found radioactive and toxic chemical contamination at the facility. The DOE report and company officials said the contamination poses no immediate threat to the public.

In its filing to Bloch, a Rocketdyne official noted that one radioactive release — soil contamination near one of 16 reactors operated at the facility from the early 1950s — should have been included under the terms of the order but was missed. However, the official said the spill had been reported to the U.S. Department of Energy, had been cleaned up and did not threaten the health and safety of employees or the public.

Rockwell said it received no citations, health and safety was not endangered, and little contamination remains at the 290-acre site.

"The extent of radiological contamination requiring remediation at SSFL (Santa Susana Field Laboratory) is very minor and mostly confined inside buildings," Robert Lancet, the company's director of nuclear safety and licensing, said in the letter to the NRC.

"We are aware of only three unconfined contaminated areas at the site . . . the so-called 'burn pit' and a few limited spots outside the RMDF (Radioactive Materials Disposal Facility) and Building 20," Lancet said.

The list of radioactive spills was ordered under terms of a 10-year license renewal application that the company's Rocketdyne Division had sought before anti-nuclear activists protested continued operation of its nuclear Hot Laboratory.

Faced with the challenge, the company announced it would close the Hot Laboratory and reduce its application to a one-year renewal. However, the activists said they would continue to pressure Rocketdyne until the spill data was released.

Company officials could not be reached for comment Monday night.

NRC spokesman Greg Cook in San Francisco said he had not seen the company's response. Bloch was not available for comment.

Among the radiological releases reported by the company were:

■ A July 29, 1975, fire during processing of a radioactive fuel slug occurred while a tour was being conducted at the facility. The tour was terminated and all "unnecessary personnel were requested to leave the operating gallery," a Sept. 29, 1975, company letter said. The incident did not result in any overexposures, the letter said.

■ A leach field near the nine-building complex where radioactive materials were packaged and stored, was found to have contaminated water draining from it on Feb. 14, 1978, a company document said. The company estimated it had been draining about five days at 25 gallons per hour. A small percentage "may have been discharged across the site boundary," a March 2, 1978, internal letter said.

■ On Jan. 20, 1979 water in a retention pond showed an unusual increase in the concentration of radioactivity, an internal company letter said. The probable cause was an "accidental release" near the disposal facility. Heavy rainfall forced the company to pump the pond to a surface channel leading to a pond that discharges into a creek running through the Bell Canyon residential community. The company said radioactivity in that pond never exceeded natural background levels.

■ Low-level radioactive material leaked from a truck headed for Nevada on Aug. 14, 1979, the company said. The liquid was caught in a bucket, and the contaminated area blocked off. A lab coat of one employee and a boot of another were contaminated, a company document said. There were no internal exposures, the company said.

■ On April 24, 1986, company officials reported a small amount of strontium 90 missing from the facility. Company officials said they believe the strontium 90 was properly disposed of with other radioactive material during decontamination activities.

"The source had last been seen in January when it was placed in a plastic bag, and marked SAVE, at the start of a cleanup of the Hot Storage Room," the report said.

"During cleanup of the Hot Storage Room, many excess items of contaminated equipment were placed in disposal containers for burial at an authorized radioactive waste disposal site. It is our conclusion that the source, in its plastic bag, was put in one of these waste containers," the document said.

Daily News

NRC to reduce safety evaluation at Rockwell lab

By TONY KNIGHT
Daily News Staff Writer

The Nuclear Regulatory Commission will scale back its safety and environmental evaluation of Rockwell International's nuclear Hot Laboratory in the Simi Hills because the company plans to close it within a year, officials said Friday.

NRC staff members have been considering ways to simplify the relicensing process since the company announced plans last month to drop its bid for a new 10-year license and shut down

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Nuclear lab evaluation scaled back

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the facility, three miles west of Chatsworth, next year, said NRC spokesman Greg Cook.

"If they're going to wrap things up in a year," Cook asked, "does it make sense for us to have two or three staff members working on this until the middle of 1990?"

"It seems like if there's going to be a license renewal there's going to have to be some kind of safety evaluation report, but it's going to be a lot smaller than what they would do for the original application."

The company sent a letter Nov. 2 amending its relicensing application to extend through Oct. 30, 1990. The original application asked for a license renewal through June 1999.

The new request asks for permission to handle six grams of plutonium and 400 grams of other nuclear material — less than a pound altogether and substantially less than the 15.4 pounds of radioactive material that the current license allows.

Paul Sewell, a spokesman for the Rocketdyne Division, which operates the hot lab, declined to comment on the amended application.

Community concerns over nuclear material at the company's Santa Susana Field Laboratory have mounted since the Daily News reported May 14 that a U.S. Department of Energy environmental survey found radioactive soil contamination and chemical ground water contamination at the 290-acre nuclear reservation.

The report said there was no evidence of an imminent public health threat, but more investigation was needed to determine the extent of the problem.

It is unclear how the company's new plans would affect proceedings under way in which three San Fernando Valley residents have been designated formal intervenors in the relicensing case, Cook said.

NRC Administrative Law Judge Peter B. Bloch said the case will remain open until the intervenors have had a chance to amend their positions based on the company's new request.

"The issues have changed to the changed application," Bloch said. "But I do understand from at least one of the parties that he wants to continue his interest in the case."

Bell Canyon resident Jan Scott said he wants to continue with the challenge until he finds out more information about the nuclear research work that the company wants to do in the hot laboratory beginning in January.

Officials of Rocketdyne have said they plan to complete a research project by June involving testing ways to reduce the volume of radioactive wastes by using a high temperature chemical reaction.

The program, known as TRUMP-S, would require small amounts of plutonium, neptunium, and americium.

"I think it is in good faith that they're closing this place down," Scott said. "And I don't want to see that change. But at the same time I don't understand the TRUMP project. Maybe somebody could explain it to us."

Citing the lack of business for the hot lab and community pressure to end all nuclear research in the highly populated San Fernando Valley area, the company announced last month that it would permanently shut down the facility after completing a minor research project for a Japanese firm.

The company's current NRC license allows possession of 11 pounds of uranium-235 and 4.4 pounds of plutonium in the hot laboratory, a shielded workshop where workers use motorized manipulators to handle highly radioactive material.

Rockwell site contaminated

Radiation taints Santa Susana lab's soil, water

By MARK [illegible], TONY KNIGHT and BETH BARRETT
Daily News Staff Writers

A government survey of Rockwell International's nuclear testing facilities in the hills between Simi Valley and Chatsworth has found radioactive and toxic contamination of soil, ground water and bedrock, the Daily News has learned.

The survey of Rockwell's Santa Susana Field Laboratory, ordered by the U.S. Department of Energy, provides the first evidence that radiation contamination may be a problem at the mountain site, which at one time was among the largest nuclear reactor research facilities on the West Coast. It is in Ventura County, approximately three miles from the Los Angeles city limits.

There is no immediate threat to public safety, said a private consultant who was part of the team that conducted the survey. But further tests are needed to determine how serious a problem exists and what should be done about it, the consultant said.

Regulatory control over the facility is shared among at least three federal agencies and at least three state agencies.

A spokesman for Rocketdyne, the Rockwell division that operates the Santa Susana facility, declined to answer specific questions about the survey.

However, Rocketdyne released a statement Friday that said in part: "Rocketdyne has fully supported the Department of Energy survey and agrees with the DOE's findings in its draft report that there is no present threat to human life with respect to operations of the Santa Susana facility."

Soil contaminated with radiation was detected at the site in May 1988 but investigators were unable to assess the threat to the environment or public health without a full-scale environmental investigation, according to one of the private consultants who began conducting tests last May for the Department of Energy.

According to the Nuclear Regulatory Commission's current emergency plan, dated July 25, 1988, 78,000 people live within five miles of the Santa Susana nuclear facilities. Within a 10-mile radius, the population

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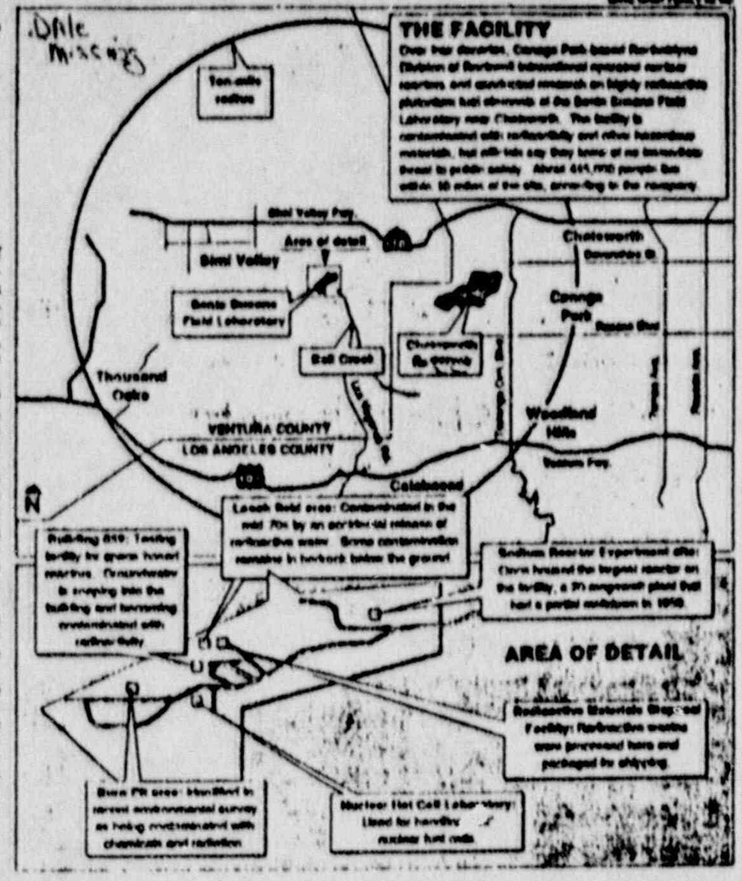

Date missing

Radiation taints Rockwell site

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is 444,255, according to the company's 1987 Environmental Monitoring Report on its nuclear facilities.

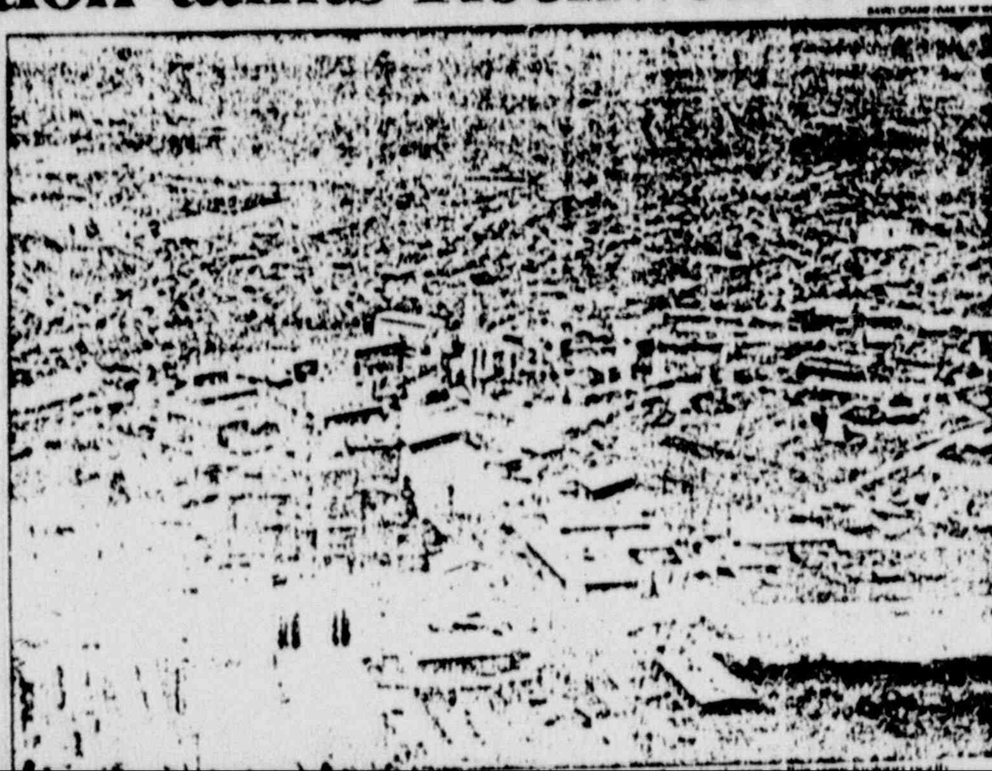
The independent environmental survey is not scheduled for public release for at least a month, said Randal S. Scott, director of the DOE's environmental audit office.

But an environmental engineer who was part of the survey team said in an interview in Washington, D.C., that he found significant contamination from radioactivity and toxic chemicals in several areas of the facility.

"There's just no way of telling the extent of it," said James D. Werner, a former hazardous-waste consultant who now works for the National Resources Defense Council in Washington, D.C. "There's just no data. These guys have never undertaken any kind of comprehensive ground water monitoring survey or soil survey."

DOE site representative Tony Adduci confirmed that two contaminated areas identified by the survey were cleaned up immediately, but several others will require long term clean-up projects.

Asked whether radioactivity had contaminated the soil at the 290-acre facility three miles west of Chatsworth, he said, "No. At least not that I can remember. Or if it is radioactive, it's radioactive



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can't even remember."

Werner said radioactivity has seeped into the ground from hazardous waste dump sites on the property, and that it is possible that radioactivity is migrating away from the facility through the soil and fissures in the bedrock.

"They need to do some more monitoring to figure out what the hell's going on there," he added. "Because they have such a poor system for monitoring there's no way of telling if there's been migration off the site."

Scott said Rocketdyne, which conducts nuclear research under contract with the Department of Energy, is preparing a response to the survey team's findings that will be released along with the final report.

Rocketdyne spokesman Pat Coulter issued a statement defending the company's Santa Susana operations.

"Rocketdyne has been taking, and will continue to take, the actions necessary to maintain a safe environment in which it operates," he said.

"For example, since 1985 we have sampled on a quarterly basis 16 wells and springs surrounding the Santa Susana facility and have regularly reported the results to the appropriate local and state agencies," he said. "The sampling has not shown any radiation or chemical contamination."

"Rocketdyne has been taking, and will continue to take, the actions necessary to maintain a safe environment in which it operates."

— Pat Coulter
Rocketdyne spokesman

Numerous state and federal agencies have jurisdiction over the company's Santa Susana facilities, including the U.S. Department of Energy, Nuclear Regulatory Commission and Environmental Protection Agency and the California Health Department, Department of Industrial Relations and Regional Water Quality Control Board.

Annual environmental monitoring reports prepared by Rocketdyne and submitted to the state Department of Health Services' Radiological Health Branch since the mid-1960s do not indicate the extent of contamination outlined in the new survey.

David Speed, health physicist in charge of the state's Santa Susana reports, said he was unaware of environmental problems at the site.

"We don't have a real regulatory role when it comes to the DOE stuff," Speed said. "They're supposed to be self policing."

Over four decades, the Atomics International unit of Rockwell's Canoga Park based Rocketdyne Division developed a wide array of experimental nuclear facilities, operated several nuclear reactors and conducted extensive research on highly radioactive plutonium fuel elements at the Santa Susana site.

The company's Nuclear Development Field Laboratory operated at peak levels in the late

"When I was there, there were dead rats floating belly up and bloated, little snakes swimming in it. It was the nastiest thing. You could see the sheen from chemicals and stuff."

— James D. Werner
National Resources Defense Council representative speaking of a disposal pit near the western fringe of the Santa Susana Field Laboratory

1960s. But funding diminished for the research in the 1970s and most of the facilities were deactivated.

In 1974, the company began a massive cleanup program aimed at dismantling nearly all of the nuclear facilities and decontaminating the site so it could be released for unrestricted use.

Government records indicate that Rockwell's nuclear cleanup is winding down, and plans are under way to decontaminate and decommission the remaining "hot" buildings in the nuclear research portion of the Santa Susana Field Laboratory.

But last year's environmental survey found that significant areas within the facility are still contaminated, Werner said.

He said the highest level of radioactive contamination in the environment was measured by the survey team at a disposal pit near the western fringe of the facility. Known as the "sodium burn pit," it was used as a dumping ground for contaminated equipment and waste.

"That is probably the worst thing we found at the site," Werner said. "The whole area is contaminated with radioactivity, solvents and heavy metals. It's real nasty stuff.

"When I was there, there were dead rats floating belly up and bloated, little snakes swimming in it," he said. "It was the nastiest thing. You could see the sheen from chemicals and stuff."

The survey also found that ground water is seeping into the lower levels of Building 059, where small nuclear reactors were tested and where radioactive material and equipment remain.

Adduri, the Department of Energy official, denied that radioactivity is spreading outside the building. He said any water that seeps into the building is being pumped out to ensure that radioactivity is contained in the basement.

Werner said it is unclear whether any radioactivity moved out of the building before the seepage was discovered and pumping began.

Speed, of the state Health Department, reported in an April 25 memorandum that Building 059 is causing "a minor ground water problem."

"This problem has not been resolved, to the best of my knowledge," Speed reported.

Elsewhere on the site, Werner said, radioactive contamination remains in bedrock at a leach field, or pit enabling wastewater

"We have been kept in the dark all along, and I don't know what to say."

— Hank Yacoub
Engineer in charge of regional water board investigation

to seep into the soil, that served sewer lines from the company's Radioactive Materials Disposal Facility, where radioactive wastes were treated and packaged for shipment.

The leach field was contaminated by mistake in 1975, DOE records show, and a cleanup continued until 1978.

"They scraped off all the surface dirt and jackhammered through 10 feet of solid rock and it was still contaminated with radioactivity," Werner said. "They said they couldn't go any further ... so they covered it with asphalt and then covered that with dirt."

Werner said Rocketdyne officials attributed the contamination to a single incident of leakage when a valve was accidentally opened — "which I don't believe at all," he added.

"They couldn't tell me when the valve was opened, when it was closed or who did it," he said. "They couldn't show me the valving on it. They couldn't explain why they had a leach field that would allow them to do that, or why they had a valve setup that could be accidentally opened."

A 1981 company report on the leach field contamination said the bedrock is not very porous and the radioactivity is not expected to go anywhere.

Werner said radioactivity may be migrating through cracks and crannies in the bedrock, but no definitive studies have been done.

"It's been oozing, but they don't know how much," he said. "They don't have an inventory on (how much) waste went in there, and they don't know where it is now."

Werner said he also found inadequate monitoring of soil and ground water for radioactive incursion within the DOE-operated portion of the Santa Susana site. He said there are not enough monitoring wells there, and those that are there are poorly located for detecting contamination.

"It's pretty pathetic. To me, this is not a good well-monitoring system at all," he said.

State Regional Water Quality Control Board engineers began an investigation of ground water contamination in 1983 at the Santa Susana Field Laboratory, which also includes non-nuclear facilities that aren't supervised by the DOE.

Regional water board investigators said they were never told about nuclear facilities at the site

"Our site mitigation folks were not aware of the radioactive material."

— Jim Marson
State Superfund spokesman

and have never looked for radioactive contamination.

"We have been kept in the dark all along, and I don't know what to say," said Hank Yacoub, the engineer in charge of the project.

In 1986, the regional board ordered a massive ground water cleanup — primarily in the non-DOE areas of the facility — to remove organic solvents that were in the soil and ground water from the testing of rocket engines.

Robert Ghirelli, executive officer of the regional board, said the agency would not take any actions on possible contamination in the nuclear testing portion of the site until he has reviewed the new environmental survey.

In addition to the areas where there is known contamination, Werner said there is little historical data about on-site dumps that are no longer in use but may still contain hazardous waste.

He said he obtained aerial photos of the Santa Susana facility taken over several decades, and many show what appear to be dump sites that are no longer visible.

One such area, called the conservation yard, still shows signs of radioactivity, Werner said.

"We don't know exactly what's there, but we suspect radioactive contamination and some solvent contamination," he said.

"We took our rad meters (radiation detectors) up there and found elevated rad levels in this whole area ... but we have no (data) at all," he said. "We just have aerial photos showing that stuff used to be there."

The Santa Susana site also is licensed under the federal Resource Conservation and Recovery Act, and regularly inspected by the state's Toxic Substance Control Division, which administers the state Superfund for toxic cleanup.

"Our site mitigation folks were not aware of the radioactive material," said Jim Marson, a spokesman for the state Superfund. "It's never come up in any of the discussions."

The federal government's Santa Susana survey, formally known as an Environmental Survey Preliminary Report, was conducted as part of a sweeping review of facilities operated nationwide by the Department of Energy.

Former Energy Secretary John S. Herrington ordered the review in 1985, after congressional hearings exposed environmental problems at several DOE-run facilities.

A team of consultants conducted full-scale field investigations at 35 facilities over three years; the Santa Susana investigation in May 1988 was one of the last that was conducted.

The survey team's report was completed earlier this year, and sent to DOE headquarters for review.

As part of the review process, Rockwell and DOE officials who supervise the facility will be permitted to respond to the team's findings and propose an action plan for cleaning up environmental problems.

Adduri declined to comment in detail on the report until it is released. He said it is being edited by DOE staffers in Washington.

"You can see we're polishing the apple," he said.

Rockwell already has a detailed decommissioning plan for buildings at the Santa Susana site, and some of those structures already have been decontaminated and released for general use.

Rockwell also has an extensive emergency plan, which prescribes actions in the event of a nuclear accident at the site — including evacuation and treatment arrangements with area hospitals and law enforcement agencies.

The facility is currently licensed by the Nuclear Regulatory Commission to use special nuclear materials, primarily uranium and plutonium, for "decladding" irradiated reactor fuel elements. The process breaks the elements down in preparation for disposal.

The decladding work is conducted in a special building called the Hot Lab, where employees use shielded equipment to handle the dangerous materials.

"If they had any business sense at all, they'd see the handwriting on the wall ... and make a big (effort) to try and get more and more, environmental money."

— James D. Werner

NRC records show that Rockwell is already planning the building's decommissioning unless the company's marketing officials succeed in finding new contracts to keep the four hot cells inside the laboratory in operation.

A Nov. 8, 1988, NRC inspection report shows that Rockwell recently failed to land a key decladding contract, which "led to a growing interest in finding other applications for the (Hot Lab) facilities and staff."

A more recent NRC report, filed on Feb. 16, shows that current work in the Hot Lab is "principally oriented toward cleanup."

But while there is an active program for cleaning up and decommissioning buildings at the Santa Susana Field Laboratory, there is virtually no plan for dealing with the hazardous dumping areas used for decades on the site, Werner said.

"If they had any business sense at all, they'd see the handwriting on the wall ... and make a big (effort) to try and get more and more environmental money," he said.

"The fact is, they don't even know what they've got out there completely," Werner said. "But there are a lot of indications that they've got problems."

This story was compiled from reports by Daily News staff writers Mark Barnhill in Washington, D.C., and Tony Knight and Beth Barrett in Woodland Hills with research assistance from John Beckham.

Rockwell disclosure ordered

Official wants data on contamination

By TONY KNIGHT
Daily News Staff Writer

The Nuclear Regulatory Commission judge reviewing Rockwell International's request for a renewed license to handle radioactive materials has ordered a full accounting of contamination at the company's nuclear-research facility in the Simi Hills, according to documents released Monday.

A complete list of contamination incidents or releases since 1969 at the company's Santa Susana Field Laboratory, three miles west of Chatsworth, should be submitted before Sept. 29, NRC Administrative Judge Peter B. Bloch said in a Friday memorandum to the company.

"Be clear and concise, using figures or charts whenever helpful," Bloch said. "Answers should be in writing, under oath or affirmation."

A spokesman for the company's Rocketdyne Division, which operates the field laboratory, said a response to the judge's request is being prepared but he was unsure whether a complete list of spills and contamination incidents was available.

"I think it's a matter of being able to provide as much information as we have available, and we're certainly going to do that," spokesman Pat Coulter said Monday.

The NRC judge also issued a memorandum asking for details of company evacuation plans, if any, for area residents in case of an accident or an explanation of why such plans are not needed.

Coulter said the company has an on-site emergency plan, which is required by the NRC license. He said officials were going over the plan to see if any elements apply to off-site residents.

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Contamination disclosure ordered

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If a complete list is provided, it will be the first thorough review of contamination problems at the field laboratory to be released since last May, when the U.S. Department of Energy released an environmental survey identifying some problems with chemical and radioactive contamination.

The report said there was no evidence of an imminent public health threat, but said more monitoring was needed to determine the extent of the problem.

In the ensuing months, area activists, the state Department of Health Services and the U.S. Environmental Protection Agency have asked for a complete audit of the site to identify all contamination problems.

The company has agreed to such an audit. But in the meantime, three San Fernando Valley residents have attempted to intervene in the company's request for a 10-year extension of its NRC license to handle nuclear materials.

The residents, who have called repeatedly for the company to disclose more information about radioactive contamination at the site, hailed the judge's memorandums.

"I'm happy," said Woodland Hills businessman Jon Scott, an opponent of the license renewal. "It further opens up developments. My main problem is that I just don't know all the facts."

The other residents who have intervened in the company's license application request are Estelle Lit, president of the San Fernando Valley United National Associations, and Jerome Raskin, president of the Northridge Civic Association.

Bloch is reviewing the complaints of the residents who have demanded a hearing on the company's request for an extension of its license to handle nuclear materials at the Santa Susana Field Laboratory.

The public has been invited to submit oral or written comments on the issue at a meeting scheduled from 7 to 10:30 p.m. Sept. 28, in Room 120, 6150 Van Nuys Blvd.

A prehearing conference with all parties present is scheduled in the same room beginning at 9:30 a.m. Sept. 29. The conference is open to the public.

The company needs an NRC license to handle nuclear materials at its Radioactive Hot Laboratory, where highly contaminated nuclear fuel rods can be processed and nuclear materials recovered for other uses.

Most of the nuclear facilities on the 290-acre nuclear reservation are under DOE control and not covered by the license.

But Bloch, in Monday's memorandum, said that DOE operations are not exempt from his review in this case.

Coulter said he did not know whether the company would maintain that DOE operations are exempt from scrutiny by the NRC judge. He said company officials would not respond specifically to the two memorandums until the hearing.

"Everybody's kind of buddied behind closed doors with the doors taking a look at them," Coulter said.

Date Missing

'83 Rockwell plan cited radiation risks

By BETH BARRETT
and MARK GARSHELL
Daily News Staff Writers

Rockwell International officials knew at least six years ago that radioactive contamination could spread from the Santa Susana Field Laboratory to surrounding areas, a company document obtained Tuesday shows.

The Long-Range Plan for Decommissioning Surplus Facilities, completed by Rockwell's Rocketdyne Division in 1983, summarized potential risks from contamination at five buildings and four support areas within the facility.

The plan, released by the company in response to Daily News requests, urged rapid dismantling of several of the facilities to reduce the risk from contamination and eliminate the potential for unfavorable public and political reactions.

Only one of the buildings, an experimental laboratory associated with the nuclear reactor in the 1960s, has been completely decontaminated so far, according to more recent documents prepared by Rocketdyne to brief state regulatory officials.

Officials with the company's

See ROCKWELL / Back Pg.

Disclosure was major concern

By MARK GARSHELL
and BETH BARRETT
Daily News Staff Writers

Rockwell International officials considered public disclosure of radioactive contamination at the Santa Susana Field Laboratory one of the biggest potential risks in assessing and cleaning up the problem, an internal document obtained Tuesday shows.

In a 1983 long-range cleanup plan, Rockwell's Rocketdyne division, which runs the facility in the hills between Chatsworth and Simi Valley, rated the risks from contamination of the nuclear research facility

See DISCLOSE / Back Pg.

Daily News

Radioactive soil

Officials wait for report

By Armando Aguirre

Local officials said today are waiting for an independent environmental survey before commenting on possible radioactive contamination of soil and groundwater in a 10 mile radius of Rocketdyne's Santa Susana Field Laboratory.

An article in Sunday's Woodland Hills based Los Angeles Daily News reported a soon to be released Department of Energy study found radioactive and toxic contamination of the soil, groundwater and bedrock at the 290 acre facility in the mountains southwest of Simi Valley.

The study, ordered by former Department of Energy Secretary John Harrington in 1988, was conducted at all DOE licensed sites throughout the country over a three year period and is not expected to released publicly for at least a month.

Rep. Pilan Gallegly, R-Simi Valley, was returning to Washington, D.C., from Simi Valley this morning and was unavailable for comment on the growing report.

His press secretary, John Frith, said the public should keep in mind the report indicates that there is no immediate danger to the more than 100,000 people living in the area.

"There is no immediate threat to public health and safety and that's something to keep in mind," Frith said. "We're gathering all the facts together as soon as possible."

While Simi Valley has no specific authority in the area because the laboratory is out of the city's jurisdiction, Diane Davis-Crompton, director of Environmental Services said, "We are concerned with the information that is appearing."

"We are very interested in seeing the final report, but the city has no jurisdiction there," Davis-Crompton said. "We're hopeful that the regulatory agencies are diligent in their efforts to let us know what happened up there."

There is no immediate threat to public safety, but more tests need to be conducted to determine how serious the problem is, James Werner, a former hazardous waste consultant who was part of the team that conducted the audit at the Santa Susana site last year, said today.

"A lot of our findings were things they already knew about internally," Werner said. "We found significant radioactive contamination at several of the facilities including the burn pit and the radioactive waste disposal facility."

Based on interviews with retired Rockwell employees and the use of aerial photographs, the investigation also uncovered other evidence of toxic contamination Rockwell was not aware of, Werner said.

"Our biggest concern was the lack of adequate environmental monitor-

(Please see SOIL, Page 3)

Soil

(Cont. from Page 1)

ing," Werner said. "They had very few groundwater monitoring wells and had not performed soil sampling in areas of potential contamination."

Rocketdyne officials were unavailable for comment this morning, but told the Daily News, "Rocketdyne has fully supported the Department of Energy survey and agrees with the DOE's findings in its draft report that there is no personal threat to human life with respect to the Santa Susana facility."

Werner was working for ICF Corp., based in Fairfax, Va., when the study was conducted. He spent three months studying the Santa Susana facility.

Simi Valley Mayor Pro Tem Ann Rock has not seen the report and would not comment on it specifically. She said the city would become involved if the hazardous wastes affected public facilities.

"Radiation comes in several forms, not all of it deadly. Our concern would be anything that is discharged to a public facility."

Werner, who conducted similar studies on 35 sites throughout the United States, said the Santa Susana facility provides a microcosm of what is occurring around the country.

"This is another example of DOE seeking to operate outside the law. All over the country we've got examples of this happening," Werner said. "Everybody has their environmental problems — that's nothing new. But failing to disclose them and not doing something about it is a concern."

Werner said his report included criticisms of Rocketdyne's maintenance of the facilities and how they handled the hazardous waste.

"They weren't even at the point where they could start to do something about it. One of things we realized was that the immediately contaminated run-off from the burn pit," Werner said. "That's something that any engineer would have recognized from the start. Sure, some of the things take time, but there were certain actions they should have taken immediately that they didn't do."

ENTERPRISE 5/16/89

theEnterprise

Simi Valley and Moorpark, California | Tuesday, May 16, 1989 | 25 cents per copy | 22 Pages

DOE: Rocketdyne poses no danger

By Armando Aguirre
The Enterprise Staff

Department of Energy officials today released a survey that found radioactive-contaminated soil, bedrock and groundwater surrounding Rocketdyne's Santa Susana Field Laboratory.

But the report also states there is no immediate threat to public safety, said Rep. Elton Gallegly, who demanded a copy of the study when the reports about it surfaced this week.

"Because of the sensitivity of the issue and the fact that the facility is in my district, I felt it was imperative that I should have access to the report," Gallegly said.

Gallegly met with five DOE officials for an hour this morning to go over the more than 30-page report.

"They were very straightforward and they gave us an opportunity to go over the report in an overview," Gallegly said. "One thing they were adamant about was the fact that there is no danger to the public."

The study, ordered by then-Secretary of Energy James Herrington in 1988, was conducted on all DOE-licensed sites throughout the country over a three-year period and was not expected to released publicly for several weeks.

The survey found radioactive and toxic contamination of the soil, groundwater, and bedrock at the 290-acre facility in the mountains southeast of Simi Valley.

The release date of the survey was delayed because Secretary of Energy James Watkins wanted a chance to review the survey before it was released to the public, Gallegly said.

"Adm. Watkins had wanted a chance to review the report — and rightfully so — before it was released," Gallegly said. "I left a message with his office yesterday that we wanted to see it immediately. I was on the phone again this morning when they (DOE officials) walked into my office with the report."

Gallegly said the report looks at each situation critically and was "conservative" in its analysis.

Local elected officials and residents said this morning they are anxious to see the report, which is available at Gallegly's office.

Supervisor Jim Dougherty, Simi Valley-Moorpark, said today his office was

(Please see REPORT, Page 10)

Report

(Cont. from Page 1)

concerned about the report, but would allow Gallegly to take charge of protecting the area constituents.

"We want to find out what's going on but it's a federal matter and we're going to let Congressman Gallegly get us the report," Dougherty said.

In 1979, following reports that radioactivity from the facility was leaking into the air, Dougherty and then Supervisor Ed Jones rented Geiger counters and conducted their own survey.

The results of the test showed there was no radioactivity in the air, Dougherty said.

"We did it because, at the time, there was no one doing anything about it. Now, there's several other agencies involved and we can let them handle it."

Rocketdyne released a written statement on Friday saying in part it agreed with the DOE report that there was no threat to human life at the Santa Susana facility.

There are 400,000 people living in a 10-mile radius of the facility. Simi Valley resident Ed Clark said the population boom in Simi Valley during the past decade has made the facility a danger to the residents.

"I don't think there's any need to panic but we are going to have to get in their face (Rocketdyne) and find out what exactly is going on up there," Clark said. "It was fine during the '70s when there wasn't a population here but those days are over."

Clark also said he was surprised the residents have not pressured their elected officials into requiring Rocketdyne to release more information about the operations at the facility.

Rocketdyne officials and employees would not comment specifically on the report or comment on the effect the contamination might have on the environment.

"We released our statement on Friday and that's all I can say for now. I can't go beyond what the official statement says," said Rocketdyne spokesman Pat Coulter, when asked if the animal or plant life in the area could be affected.

Coulter defended the facility's operation's stating that Rocketdyne has, since 1958 on a quarterly basis, tested 16 wells and springs in the area.

But resident Milissa Brown, who has lived on Rainy Road since 1985, contradicted Coulter's statement.

"I've lived here four years, and not once has anyone come here to test our well or our neighbor's," Brown said. "What wells are they testing? And are they testing the same ones over and over again?"

Moorpark Planning Commissioner Glen Schmidt, an employee at Rocketdyne who recently completed work on a nuclear powered satellite for NASA, also declined comment on the report or plant operations.

"There are very strenuous guidelines that we have to follow regarding conversations about the operations here," Schmidt said. "You would probably be able to get more complete and accurate information if you spoke to him (Coulter)."

At his first commission meeting in November, Schmidt expressed concern over the water quality of local wells and stated publicly he believed an investigation was warranted.

He would not say Monday if the DOE investigation and his statements concerning the water wells were related.

Simi Valley's water comes from the Sacramento/San Joaquin River Delta region via Jensen Treatment Plant in Granada Hills, and the pipeline passes through the Santa Susana Pass just below the Rocketdyne facility.

But there is no chance contaminated groundwater could affect the drinking water of local residents, said Jim Hubert, engineer-manager for the Calleguas Metropolitan Water District.

"There is absolutely no chance of that happening. All over Southern California there are varying degrees of contamination underground," Hubert said. "It's not going to get into the pipe system because of the extreme water pressure."

ENTERPRISE 5/16/89

Report criticizes Rockwell

Survey finds more than 12 contaminated sites at nuclear facility

By DAVID BARDWELL
Daily News Washington Bureau

WASHINGTON — A Department of Energy survey of Rockwell International's nuclear testing lab in the hills between Chatsworth and Simi Valley found radioactive and toxic contamination at more than a dozen sites and criticized poor monitoring and test procedures, the full report released Tuesday says.

The report describes a series of environmental problems at the 40-year-old Santa Susana Field Laboratory, operated by Rockwell's Rocketdyne Division, but concludes there is no "current" danger to people who live near the site. It said further testing is needed as well as a long-term cleanup program.

Tests of radioactive material conducted by Rocketdyne officials in 1986 were criticized in the report for being "biased toward spreading contaminated areas, a method which thereby systematically underestimated contamination at the burn pit."

The report further states that Rocketdyne workers used firearms to open containers of volatile chemicals for disposal so they could stay a safe distance from the burn pit. Radioactive contamination was found at the pit, the report said.

"The environmental problems described in this report vary in terms of their magnitude and risk," an executive summary states. "(But) the survey found no environmental problems at (the facility) that represent an immediate threat to human life."

Rocketdyne officials have said there is no immediate danger to the public health but have refused to comment further.

The DOE report, issued on a survey team's unannounced visit in May, was completed in February but not made public until Tuesday when Rep. Elton Gallegly, R-Simi Valley, pressed the department for its release after the Daily News had reported Sunday that contamination had been found at the facility.

DOE officials gave Gallegly a copy of the 210-page report and briefed him on its findings Tuesday morning.

"I am relieved to learn that DOE now indicates there appears to be no immediate threat to surrounding communities," he said. "But I am concerned that the department can't unequivocally state that there is no potential future

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DAILY NEWS 5/17/89

REPORT ON ROCKWELL NUCLEAR TESTING

Report criticizes nuclear facility practices

REPORT From Page 1

problem with off-site ground water.

"I will continue to push for additional monitoring wells to be dug as quickly as possible so we will know for sure if there is any reason to be concerned," Gallegly said, "and I will closely monitor cleanup efforts on-site to ensure they proceed as effectively and quickly as possible."

The report urges further study to determine the extent and nature of contamination at the facility and repeatedly criticizes inadequate monitoring of contamination both within the facility and outside its boundaries.

The company's ground-water monitoring program, for example, is described as being incapable of effectively measuring "the nature and extent of ground-water contamination at known and potential (on-site) source areas, and detecting off-site ground-water contamination."

Ground-water monitoring problems cited in the report include an insufficient number of wells, substandard seals in wells that do exist and inadequate study of ground-water flow rate and direction.

The survey also faulted Rocketdyne's surface water monitoring program for not including sampling of rainfall runoff. Lack of sampling "could result in undetected release of contaminants off-site," the report states.

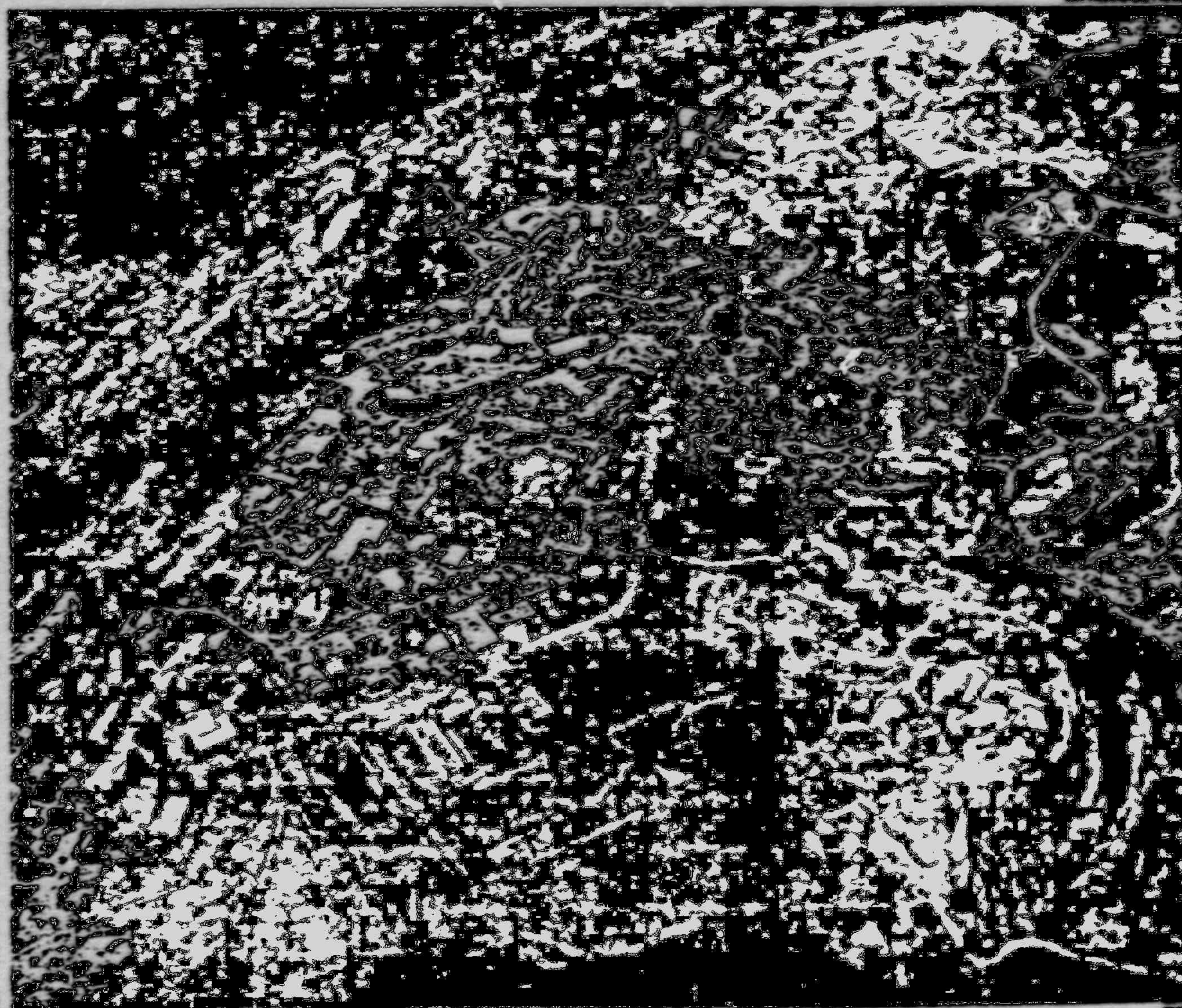
There also are "deficiencies in the soil monitoring program which make it inadequate for current site conditions," the report states.

Problems in this area include outdated sampling locations for soil radioactivity. Soil samples in Rocketdyne's monitoring program are primarily taken at the site of old experiments that "do not reflect current operations."

The report said radiation levels at the northern boundary of the facility may exceed the DOE's guideline level for continuous exposure.

"This guideline is intended to protect members of the public from unknowingly receiving excessive exposure," the report states, adding that exposure to the public from the Santa Susana site "is unlikely due to terrain along the north boundary and daily security patrols."

The environmental survey, conducted in May 1988 by a team of experts hired by the Department of Energy, identified approximately 10 [illegible] hazardous or radio-



A Department of Energy report cited testing and cleanup deficiencies at Rockwell International's Santa Susana Field Laboratory.

active materials "have or may have been disposed of, spilled or released" at the site.

"These constitute actual and potential sources of soil and/or ground-water contamination," the report states. "The full nature and extent of contamination is not known."

At least two areas of the site have contaminated soil and three areas have contaminated ground water. A half-dozen other areas are described as "potential sources" for ground-water and soil problems but have not been fully tested.

Most of the findings will require long-term cleanup programs, the report states, although some immediate problems — including leaking and corroded drums in a storage facility — already have been corrected by Rocketdyne.

The survey team conducted a top-to-bottom review of how four decades of nuclear research have affected the Santa Susana site.

A key area of concern identified in the survey is a Sodium Burn Pit, used between 1960 and 1970 to dispose of toxic chemicals, solvents and equipment contaminated with radiation.

The burn pit area covers about one acre and includes a concrete-lined pool, two disposal ponds and a waste burial site. It is now surrounded by a chain-link fence with a padlocked gate but "the fence was partially torn down and there was easy access through a large hole in the side," the survey team reported.

The pit is now contaminated with radioactivity, primarily Cesium-137, and a variety of chemicals including sodium, sodium-potassium and solvents.

"Flammable chemicals were poured into open pits and burned," the report states, describing the history of the burn pit.

"Unauthorized radioactively-contaminated equipment was buried in trenches and scattered on the surface. In addition . . . occasionally firearms were used on vessels to 'safely' open the containers to the atmosphere.

"Although this method may have allowed workers to remain at a safe distance from the containers containing reactive (toxic) substances when they were opened, it did not facilitate capturing the contents," the report states.

The burn pit also included a ¾-inch steel "blast shield" to protect workers from volatile and explosive sodium and sodium-potassium compounds that were disposed there.

CONTAMINATED FACILITY

[illegible]

EXCERPTS OF THE REPORT

[illegible]

SUMMARY OF FINDINGS

[illegible]

OVERALL CONCLUSIONS

[illegible]

> *"These (10 sites) constitute actual and potential sources of soil and/or ground-water contamination. The full nature and extent of contamination is not known."*
>
> **— Department of Energy report**

Some waste was removed from the burn pit in the 1980s.

"No information was available on the amount or type of waste removed, when it was removed, to which location it was removed or on what basis the removal was initiated or ceased," the report said.

In 1986, Rocketdyne officials dug 23 test trenches in the burn pit area revealing the presence of "buried radioactive, chemical and mixed hazardous wastes."

These are the tests that the report called "biased" to avoid sampling contaminated areas.

The DOE survey team that inspected the site last May found ground-water and soil contamination from several substances at the burn pit, including Cesium-137 — a radioactive isotope.

"It has been estimated that 28,640 cubic feet of radioactive waste, 14,400 cubic feet of chemical hazardous waste and 11,025 cubic feet of mixed hazardous waste will be generated by cleanup activities" at the burn pit, the report states.

There is no indication that elevated levels of contaminants are migrating down slope toward Simi Valley, where artesian wells are used to water cattle and a youth camp is located farther east.

Nonetheless, the report states, "there is a potential for release of contaminated runoff . . . due to inadequate control of storm water run-on and runoff."

In addition to the burn pit, one other area was discovered to have soil contamination — the site of a Sodium Reactor Experiment conducted in the late 1950's and early 1960s. There is asbestos contamination near where a cooling tower was located, possibly from a fire that destroyed the cooling tower, which contained asbestos.

Two other areas at the site were discovered in the survey to have ground-water contamination, and a half-dozen more were described as "potential sources" for ground-water or soil contamination.

One of the areas proven to be contaminated is near an on-site monitoring well where chemical contamination was discovered, including levels of trichloroethylene that exceeded state action levels. It is unclear whether there is radioactive contamination near the well because "no analyses for radioactivity have been performed," the report states.

The third contaminated ground-water area is around Building 059, where Rockwell conducted space reactor experiments in the 1960s.

Ground-water tests outside the building detected chemical contamination, primarily from trichloroethylene and polychlorinated biphenyls, both carcinogens.

The tests did not turn up any elevated levels of radioactivity outside the building, but the DOE report says radioactivity from the Building 059 basement "is a potential source of ground-water contamination."

The basement contains radioactive parts of an experimental reactor that was tested there, and sand was used to cover the reactor. In 1983, Rockwell officials discovered that ground water was seeping into the basement, and they have been continuously pumping it out since then to prevent contamination from moving out of the building.

Several other areas were described in the DOE report as "a potential source for ground-water contamination," including a leach field that still contains "residual radioactivity."

The leach field was contaminated with radioactive waste by mistake sometime before 1975, and a cleanup was finished in 1978 without fully eliminating radioactivity that had seeped through the soil and into the bedrock.

Rockwell officials excavated the soil and rock, but "residual radioactive activity was found in the bedrock cracks, presumably from wastewater percolation or flow," the report states.

The cracks were covered with asphalt, but "no ground-water monitoring has been performed" since then and it is unclear whether the residual radioactivity migrated.

Other potential trouble sites were identified by the survey team from old aerial photos that show drums and other waste material that have since disappeared. Little or no information about what was disposed at those sites, primarily in the 1960s and '70s, is available, according to the report.

The sites include a conservation yard where hundreds of drums and equipment were stored, a landfill where drums of wastes, some of them hazardous, were dumped, at least two chemical storage yards, and a trench used to dispose of construction debris and possibly hazardous substances.

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Radioactive water flows into city?

By Anthony Aarons
The Enterprise Staff

Asbestos, chemicals and radioactively contaminated water could be flowing into Simi Valley from the Rocketdyne Santa Susana Field Laboratory, a U.S. Department of Energy report states.

But experts said none of the rain water leaving the facility has been contaminated.

Ten percent of the potentially contaminated surface water from five contaminated sources could be flowing into the area through "Meier and Runkle Canyons toward the Arroyo Simi or Conejo Creek," according to a better than 200-page preliminary report on environmental conditions at the [illegible]-year-old field laboratory by the DOE.

The report said that there was no immediate threat to human health because of the contamination, but testing at the facility was inadequate to assess future problems.

A DOE investigator involved with the inspection said the surface water tested had no contamination.

"Rocketdyne has done tests on the area of greatest concern," said Gary Lavasseur, a DOE investigator. "No rain water runoff to date has been contaminated."

But the report said there could be a problem with runoff water.

"There may be a problem with other contaminants in the north-bound runoff. Since this runoff is not routinely monitored as part of any ongoing (SSFL) monitoring program, undetected release of contaminants may be occurring," the report stated.

City officials had little comment on the report until they could see a copy.

"It's really tough for me to say anything at this point," said Mayor Pro Tem Ann Rock.

The city should receive a copy of the report on Thursday morning, said Deputy City Manager Bob Heitzman.

Though Rock had not seen a copy of the report, she was confident the potentially contaminated water did not affect the city's drinking water.

"All of our water comes via pipeline," she said. "It does not originate from any runoff."

The DOE report identified several areas of potential soil and groundwater contamination at the Santa Susana facility.

During rains, 90 percent of water flowing from the site would travel via Bell Creek into the Los Angeles River and into the San Fernando Valley.

But the remainder of the water would find its way into the Simi Valley area.

The potentially contaminated water could leave the facility through the primary surface water drainage patterns in the area identified in the report.

"SSFL is located primarily within the Bell Creek drainage system, a tributary of the Los Angeles River. Discharge from the facility includes treated sewage effluent and surface runoff. Surface water moves via a system of drainage ditches and catch basins to two major retention ponds. The treated sewage effluent is discharged to the retention ponds.

-Please see RUNOFF, Page 9-

Excerpts from DOE's report

The following are excerpts from the Department of Energy Santa Susana Field Laboratories Environmental Survey Preliminary Report:

[illegible]

Runoff

-Cont. from Page 1-

Water in the retention pond is discharged into Bell Creek. Additionally, during periods of excessive runoff, some runoff flows into the Simi Valley through normally dry channelways," the report stated.

Also cited as a problem at the site is the groundwater. Testing of the groundwater sources, however, is not adequate to determine the levels of contamination in it.

"The groundwater monitoring program is inadequate at known or suspected sources of contamination," stated the report, which also added, "... inadequacies in the groundwater monitoring program made it difficult to reliably monitor and characterize groundwater contamination."

Five areas of potentially contaminated groundwater were identified in the report.

• Old Sodium Burn Pit — The pit, which occupies approximately 10,000 square feet, was used extensively between 1960 to 1979 for disposal of combustible materials such as sodium, NaK and kerosene. Another part of the trench revealed traces of diesel fuel, oil, grease, PCBs, PCTs, Terphenyls and Biphenyls.

• Old Landfill — Contamination by "volatile organic compounds" has been revealed in the area used for temporary storage of "drummed wastes and other uncontaminated materials and soils."

• RMDF Leach Field — "An accidental release of radioactively contaminated water" in and between a sanitary leach field occurred sometime in late 1982 or early 1983. The area was later excavated and soil contaminated soil was replaced with clean soil. "There is a high probability that contaminants reached the groundwater through infiltration from the leach field. The groundwater in the area of this potential source of contamination has not been investigated."

• Old Conservation Yard — The area was used for the storage of equipment and wastes. The area was cleared of materials and regraded in the early part of the decade. "The storage of wastes in this area represented a potential for spills to have occurred along with subsequent groundwater contamination. No groundwater investigation has been performed in this area."

• B-100 Trench — The trench was used for "disposal of construction debris and potentially hazardous substances that represents a potential source for groundwater contamination."

Lavasseur believes there was little chance the contaminated groundwater could mix with surface water flowing into Simi Valley.

"All of it stays in the site's groundwater wells," he said.

Asbestos contamination was found behind a building that could affect groundwater, but Lavasseur said that was not a major concern in the report.

Enterprise 5/17/89

Ventura County officials decided not to monitor site

By BETH BARRETT
Daily News Staff Writer

Ventura County officials decided eight years ago against overseeing operations at Rockwell International's nuclear testing facility in the hills between Chatsworth and Simi Valley after the company told them about radioactive accidents and on-site contamination, according to interviews and documents.

According to a document obtained Tuesday by the Daily News, company officials disclosed eight accidents and other problems at the Santa Susana Field Laboratory but denied anyone was hurt or that radioactive material leaked off the 290-acre site. Among the incidents that had occurred since 1959 were a fire, an operational error and a partial meltdown of a nuclear reactor.

A government study says there is no immediate danger to the public from contamination at the site but called for more tests to determine the extent of the problem and the risks. Company officials said there is no present threat to hu-

See OFFICIALS / Pg. 10

REPORT ON ROCKWELL NUCLEAR TESTING

Officials decided against monitoring test site

OFFICIALS / From Page 1

[illegible] life with respect to operations [illegible] site.

[illegible] year after protests by a citizens group, Stop Uranium Now, [illegible] public hearings before the Ventura County Board of Supervisors, a consultant was hired to review the company's claims and testing methods. The consultant's 1981 report concluded the company's records accurately portrayed the site to be safe but no independent tests were done, county records and interviews show.

The consultant's summary was consistent with the conclusions of state federal and state agencies, county officials said Tuesday.

"We had no choice but to take their word," said Terry Gilday, manager of Ventura County's environmental health technical services section. "We didn't have the in-house expertise. The report that was reported to the board of supervisors was that there were no problems, at least not off site."

Gilday said county officials were surprised when a government survey reported Sunday by the Daily News found radioactive and toxic contamination of soil, ground water and bedrock. He said the county did not have information to address questions from dozens of worried residents who live near the site.

"I don't know what's in the report," he said. "I'm telling people to sit tight until the report comes out. If they're not satisfied with [illegible] I tell them to go to the state or federal government for answers."

Gilday said the county depends on federal and state officials to regulate Rocketdyne, the division of Rockwell International that runs the facility for the Department of Energy, he said.

Ventura County does no off-site monitoring because officials discontinued an air pollution control program in 1978 when the program [illegible], Gilday said.

The Ventura County Air Pollution Control District also decided not to do local air pollution monitoring in 1984 despite urging from citizen groups that it consider testing for off-site radioactive particles from the Santa Susana Field Laboratory.

"No one for the district has been up there since 1984," said Richard Baldwin, air pollution control officer. "I don't know what they're doing. We were convinced the state had this adequately controlled. Why add another layer of government?"

Baldwin said the district could have demanded some oversight of the nuclear reactor testing site, which at one time was among the largest on the West Coast, by invoking the county's public nuisance provisions — "a backdoor approach," he said.

Donald Koepp, director of the Ventura County environmental health division, wrote to the Board of Supervisors on May 26, 1981, that the consultant's report found the Rockwell division, then known as Energy Systems Group, was doing a relatively small amount of nuclear work at the facility and was following proper safety procedures.

"The radiological health controls are adequate and are more than would normally be expected," Koepp said.

The $4,000 report by Health Physics Instruments Inc. of Santa Barbara reviewed the company's records and testing procedures.

But the consultant, John Handloser, said in an interview Tuesday that he was unable to do a complete report because the county didn't pay him enough money to run independent tests to verify the company's records. He said he found no reason to disbelieve the company's records.

"I didn't have nearly the time or scope to do measurements of my own," Handloser said. "To do logical measurements is very expensive. I merely looked over the shoulders of Rockwell to verify their measurements and to report that to the supervisors."

Company officials prepared an answer to county officials and citizen groups in which they said the company had "compiled an outstanding record in the health, safety and environmental control areas," and had won several safety awards.

In the response signed by J.D. Gvife, then a spokesman for the Energy Systems Group, company officials said: "The overall safety record for our operations has consistently been far better than the record of U.S. industry in general. ... The radiation exposure to employees whose activities involve potential exposure has averaged less than 5 percent of the permitted exposures which can be accumulated each year for 50 years."

The company's response said that in all eight instances of problems radioactive contamination was isolated on site and that employees were not harmed by the exposures.

Among the incidents at the facility:

■ On Jan. 9, 1980, about [illegible] gallons of water containing radioactive particles flowed into a retention pond on the site, the report said.

"The radioactivity was confined to the immediate area and the retention pond, and no measurable activity above natural background was released from the site," it said. "Corrective action has been taken at the facility to prevent any future spills of this type."

A U.S. Department of Energy review found the contamination resulted after a hose burst in a building where radioactive materials were processed, but that the pond was diluted with rainwater and none of the radiation moved off-site.

■ A May 19, 1971, fire in the company's Hot Laboratory that resulted in the exposure of 52 workers was extinguished by the company. The report said no outside fire officials were contacted.

■ Company officials said a leach field, a pit enabling wastewater to seep into the soil, had been contaminated in the 1970s but that none of the radioactive material was released from the site.

"The leach field is no longer used," the report said.

DOE records show the contamination of the leach field occurred in 1975. The DOE survey last May found contamination remained in the bedrock beneath the leach field, which served the company's Radioactive Materials Disposal Facility where radioactive wastes were treated and packaged for shipment.

■ Two accidents involving nuclear power plants intended for space occurred in the 1960s, the report said. The metal jackets surrounding the fuel elements cracked in both reactors.

"The fission products diffused through the cracks in the stainless steel tubing into the coolant but were completely contained within the reactor systems," it said. "There were no releases to the reactor facility or to the environment."

■ On March 25, 1959, an operational error at a small reactor on the site resulted in release of radioactive material into a room where three people were contaminated.

"The contamination was cleaned up quickly and effectively, and the levels of contamination were so low that there were no measurable radiation exposures to any of the personnel involved and there were no releases of radioactive material outside the reactor facility," it said.

■ On June 4, 1959, there was an incident at the Sodium Reactor Experiment, a 20-megawatt nuclear reactor, involving radioactive contamination of the reactor's floor when pressure built up inside a fuel cell. The company report said employees and the environment were not contaminated.

■ The sodium reactor experiment, which was intended as a commercial power source, had a partial meltdown July 13, 1959. Ten of the reactor's 43 fuel assemblies were damaged, and the company said some of the radioactive gas was released to the atmosphere after it decayed and was filtered.

"The results of all the environmental data collected in this program showed that the SRE operations, including the accident in 1959, had not been responsible for the release of any significant quantities of radioactivity to the environment," the report said.

Letter downplays nuclear dangers

Rocketdyne official tells workers lab doesn't pose hazard to public

By BETH BARRETT
Daily News Staff Writer

Rocketdyne Division's President Richard Schwartz sent a letter to the company's 9,000 employees Tuesday repeating statements that its nuclear testing facility in the Simi Hills does not pose a public health hazard at this time.

Schwartz acknowledged in his letter that at the Santa Susana Field Laboratory "areas had been identified as needing cleanup of the residual radioactivity from our nuclear operations" before the Department of Energy survey. The laboratory is three miles west of Chatsworth in Ventura County.

But the letter, issued in response to Daily News reports that a government survey found radioactive and toxic contamination at the Santa Susana laboratory, does not address a DOE report which found inadequate monitoring to determine the extent of the radioactive and toxic contamination at the site.

Rocketdyne spokesman Pat Coulter said that company officials were aware that the monitoring issue was omitted from the letter to workers and that an answer instead will be made to DOE.

"We're addressing that, but it is in draft stages," Coulter said. "We expect a response to DOE by Friday."

Coulter refused to discuss whether Rocketdyne, a division of Rockwell International, will contest the government survey's criticisms of its monitoring program.

Richard Schwartz
Rocketdyne Division president

The survey found inadequate monitoring of soil and ground water for radioactive incursion within the DOE-operated portion of the site, not enough monitoring wells, and an inadequate perimeter-radiation detection system.

The letter from Schwartz to employees of the Canoga Park-based company said, in part: "No radioactive or chemical contamination has ever been found off-site in the ground, in the ground or in the water near our Santa Susana facility. Also, ground-water tests conducted on-site have revealed no radioactive contamination."

The DOE survey found several cases of on-site radioactive contamination in the soil and bedrock, and ground water seeping into the basement of a building where small nuclear reactors were tested and where radioactive material and equipment remain.

Schwartz told workers that the published reports represented a "fairly accurate report of the cleanup activities that are and have been under way for a number of years."

Daily News 5/17/89

theEnterprise

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Radiation report rejected

Residents concerned

By Anthony Aarons

[illegible] is beginning to get the feeling she can't win.

Early this year she moved from her Simi Valley home, on the city's west end, to escape pollution and a chemical odor problem at a nearby plant.

She chose to move to the Santa Susana Knolls where the rural environment seemed more peaceful and clean.

(Please see REACT, Page 10)

By Steve Silkin

A U.S. Department of Energy report stating that radioactive water could flow from Rocketdyne's Santa Susana Field Laboratory into Simi Valley is erroneous, a Rocketdyne spokesman said today.

"Essentially, that doesn't happen. That can't happen," said Pat Coulter, communications director at Rocketdyne.

The report stated that rainwater running downhill passes through a radiation-contaminated sodium burn pit before flowing into Rumble and Meier Canyons in the Simi Valley area. Coulter said the company sent a notice to the DOE's San Francisco office correcting that statement and referred questions on the correction to that office.

A DOE official said he could not confirm the statement on the possibility of radioactive water in the Simi Valley area was incorrect, but he believes the chances of radioactivity escaping from the site were "almost nil."

Dick Nolan, a special assistant to the director at the DOE's San Francisco office, said, "I don't have confirmation that he sent it. It's possible that it's in the office, I just haven't seen it."

He added: "I can say that the likelihood of any radioactive contamination getting off site, given what we know about the circumstances there, is almost nil," he said.

The report was released on Tuesday in a preliminary version. Because it was made public at the

(Please see RADIATION, Page 10)

Officials not surprised by report of contamination at Rocketdyne site

By Anthony Aarons

Reports of possible contamination at Rocketdyne's Santa Susana Field Laboratory are not new and well known by several government agencies, officials said this morning.

"To my best knowledge both the state and EPA (Environmental Protection Agency) know about this," said Dick Nolan, a U.S. Department of Energy spokesman.

A Department of Energy report released this week detailed instances of possible chemical, solvent, asbestos and radioactive contaminants in soil and groundwater at the site.

Testing revealed few of the contaminants have traveled off the site of the lab perched in the hills between Simi Valley and Los Angeles.

Many viewed the DOE report as containing new information about the 43-year-old facility, but various government spokesmen said that is not the case.

The EPA conducted an inspection of the lab site on March 29, 1988 and found only one "minor" violation, said Al Zemsky, an EPA spokesman at the agency's Sacramento office.

He said a preliminary assessment of the site had been done on the site in 1987. Another EPA spokesman was trying to find a copy of that report for The Enterprise late this morning.

But, Zemsky said, the EPA performed no soil tests during their 1988 inspection.

One official in the state's Health Services Department, who asked not to be identified, was upset by charges the state was unaware of the contamination that existed at Rocketdyne.

"What makes you think the state didn't know," the official said.

A spokesman for the Health Services Department said that investigators in his department were not at all surprised by reports of the information released by the DOE.

"Nobody that I've spoke to in our department thinks the report contained anything drastically new," said Scott Lewis, spokesman for the state department.

The Ventura County Department of Environmental Health was referring all calls to the state Health Services Department this morning.

Nolan emphasized that most incidents of contamination in the report had already been contained.

"In totality one-half of the 24 incidents have already been responded to," he said. "We are actively dealing with the findings in the report. We are not resting on our laurels."

The report indicated there was no immediate danger to humans because of the possible contamination. It did say there was not adequate testing facilities to determine future problems.

But Nolan again stressed that actions were already being taken to keep surface water from the lab from flowing into outer areas.

A diversion ditch has been dug around the sodium burn pit, one of the five spots of potential groundwater contamination to keep any runoff water on site, Nolan said.

He also stressed that Rocketdyne was open with DOE inspectors throughout the process, especially in the areas of water runoff from the lab.

"Rockwell has submitted [illegible] in public reports — effluent monitoring reports and nothing has ever gotten off site," he said. "These reports have been public for as long as I can remember."

Rocketdyne president reassures workers on radioactivity report

By Steve Silkin

The president of Rocketdyne has written a letter to employees addressing concerns spurred by reports of radioactive contamination at the company's Santa Susana Field Laboratory in the hills above Simi Valley.

Richard Schwartz, president of Rocketdyne, the Canoga Park division of Rockwell International Corp., wrote that "in spite of what a report in Sunday's Los Angeles Daily News implies, no radioactive or chemical contamination has ever been found off-site on the ground, in the ground or in the water near our Santa Susana facility. Also, groundwater tests conducted on-site have revealed no radioactive contamination."

He continued: "The article included a map of the SSFL location and a second map reflecting the communities within a 10-mile radius of the 'SSFL.' That area includes the community in which I live with my family. If I thought there was a risk of any potential threat, I would move my family immediately. The fact that I have neither done so nor even contemplated that possibility is perhaps the best indication that I do not believe there to be any danger to any employee or citizen at all from the work we are doing or have done at SSFL."

Schwartz downplayed the Department of Energy study that was the focus of the report. He wrote that the DOE study on the Santa Susana site was one of several done that were commissioned. "It was the last of the DOE sites to be reviewed because the DOE considered SSFL to have minor potential concerns."

The company president reiterated the Rocketdyne position that it fully supports the environmental survey and agrees with the findings in the draft report "that there is no present threat to human life with respect to operations of the SSFL."

He also stated: "It is important that you understand that long before the DOE survey team visited Rocketdyne, the SSFL areas had been identified as needing cleanup or the residual radioactivity from our nuclear operations. The survey team did not 'discover' any of these areas. They simply reviewed our reports to government agencies and our cleanup plans."

Rocketdyne has conducted a variety of nuclear power research at the Santa Susana Field Laboratory over the years.

In 1959, fuel rods in an experimental sodium nuclear reactor at the site melted down. The reactor and the surrounding soil were removed in a massive cleanup, details of which only became available to the late 1980s.

The letter to the company's 9,000 employees did not address specific allegations made in the DOE report. The report claims that monitoring to determine the amount of the contamination is inadequate.

The company is preparing a response to the DOE report, which is expected to be available Friday.

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Radiation

(Cont. from Page 1)

request of Rep. Clifton Gallegly, R-Simi Valley, the DOE declared on Wednesday that it could be considered the ideal version, Coulter said.

Rocketdyne is a Canoga Park division of Rockwell International Corp. The Santa Susana Field Laboratory has been used for a variety of nuclear research activity over the four decades of its existence, and is also used for jet propulsion engine testing and laser research.

Coulter said no radioactive water flows down from the sprawling mountaintop site and "we have no indication that it ever did."

"We've built a diversion trench around the sodium burn pit," Coulter said. "It's made of gunnite-sprayed concrete and it captures water running from above and diverts it. It holds any water that goes into the pit, where it stays."

The sodium burn pit was used as a dumping ground for contaminated equipment and waste.

Coulter said the report's statement that chemically contaminated water running off the site was correct.

The report states, "Sampling done in compliance with Proposition 65 at points downslope ... indicated that there was some transport of arsenic, chromium and lead, albeit at low concentrations."

The concentrations were low enough that they should not be considered a health hazard, Coulter said. He said the chemically contaminated water no longer flows from the site.

"That was fixed," he said.

The report also calls the monitoring of potential contamination in the area inadequate.

"We are working with the DOE to ensure that monitoring is done correctly," he said. "We have told them what we believe we need to adequately monitor the site. It is their responsibility to fund them."

"The report states that we need to develop a better characterization system for the groundwater on the site, and that is true," Nolan said. "Part of the response to the survey report is to develop a better characterization of the groundwater."

"It's not appropriate to assign fault," he said. "We are in times that are much more disciplined about our need to know the extent of any contamination and its implications than we were years ago."

Coulter said Rocketdyne is preparing to "go into the communities" to address concerns raised by the report. He said that company officials will be speaking at lunches organized by homeowners groups and community organizations.

"We're here to say we have nothing to hide," he said.

React

(Cont. from Page 1)

Much of that image was destroyed when a U.S. Department of Energy report revealed potential soil and water contamination at the nearby Rocketdyne Santa Susana Field Laboratory.

"My husband asked if this meant we were going to have to move again," Conselas said.

Conselas was an activist in HELP — Help End Local Pollution, a group formed in response to a styrene odor emanating from a hotshab factory. The group was active through the summer of 1988. Her name at the time was Ann Singleton; she later married.

But Conselas and most residents of the Knolls are viewing the potential contamination as a fact of life.

"I never could imagine everything was 100 percent OK up there," said Marie Mason, another Knolls resident. "With it being Rocketdyne and all — you knew it had to happen."

The report said there was no immediate threat or danger to human life, but water testing was inadequate to gauge future problems.

"There has got to be something up there," said Julian Rosas, a 36-year resident of the Knolls. "They can't blast these things off without there being contamination."

Though there is no sense of panic in the Knolls most people are concerned about the potential contamination.

"This is one thing that would shake anybody up," said Peter Madsen. "We are sick and tired of being impacted up here."

Chemicals, solvents, asbestos and radioactive contaminants were found in soil and groundwater on the site. No radioactive contaminants have been found off-site, but traces of solvents and asbestos have been discovered off-site.

About 10 percent of potentially contaminated surface water runoff from the lab could flow into the Simi Valley area via Meier and Runkle canyons.

Potentially contaminated water following down Meier Canyon paths could end up at the sprawling Brandeis-Bardin Institute on the foot of the hills in Simi Valley.

A spokesman for the institute, who did not wish to give his name, said analysts test all groundwater sites on the Brandeis-Bardin property regularly and there has never been any traces of contamination.

The institute's president, John Rauch, said this morning those tests are performed by Rocketdyne and the institute will have independent analysts to do additional tests soon.

No groundwater is consumed by humans or animals at the site.

EPA wasn't aware of Rocketdyne's nuclear work

By BETH BARRETT
Daily News Staff Writer

The Environmental Protection Agency did not know about operations involving radioactive materials at Rockwell International's nuclear testing facility in the hills between Simi Valley and Chatsworth when it decided in 1987 against putting it on the agency's Superfund cleanup list, federal records show.

The EPA decision was based on a report by a private consultant, Adam S. Ng, who said in an interview Wednesday that he was not told that the Santa Susana Field Laboratory, operated by the Rocketdyne Division of Rockwell, was a research facility for nuclear reactors.

Ng's Dec. 17, 1987, report for the EPA said the site was used for laser research and to make and test guided missile and space vehicle propulsion units. The report said there was toxic chemical contamination of soil and ground water at the site but did not mention problems with radioactivity.

"The first I heard of nuclear materials on that site was yesterday (Tuesday)," said Ng, a consultant with E.T. Technology Inc. in San Francisco. "I would defi-

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Radioactivity testing of wells is behind schedule

By BETH BARRETT
Daily News Staff Writer

The Los Angeles Department of Water and Power says the city's drinking water is safe, but an official said Wednesday that the agency is at least a year behind a state-mandated schedule for testing San Fernando Valley water wells for radioactivity.

The official said the most recent tests of the wells, conducted in 1983 and 1984, showed radioactivity levels were far below the state and federal safety standards.

The official also said nine of the wells — none used for drinking water — are in Rocketdyne, about six miles from the Santa Susana Field Laboratory in the hills between Chatsworth and Simi Valley where nuclear reactors have been tested by the Rocketdyne Division of Rockwell International for four decades.

"It's not like us to miss a deadline like that," said Bruce Kuebler, the engineer in charge of DWP's water quality division. "We don't have as much data as we should. I'm going to see what happened. Our interest is ensuring the water is below the standard."

A four-year investigation by the state's Regional Water Quality Control Board has be-

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EPA wasn't aware test site handled radioactive materials

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nitely have acted it because EPA could have recommended further action to other agencies."

The Daily News reported Sunday that a Department of Energy survey, conducted last May, found toxic and radioactive contamination at the 42-year-old Santa Susana facility, once one of the largest nuclear research facilities on the West Coast.

Rocketdyne said there was no immediate danger to public safety but has refused to comment on details.

Company spokesman Pat Coulter said Wednesday that Rocketdyne has consistently "responded to all government inquiries for information truthfully, honestly and openly."

"We have nothing to hide," Coulter said. "We'll have to take a hard look at what the DOE and EPA officials requested."

The full 210-page DOE report on contamination at the site was released Tuesday after Rep. Elton Gallegly, R-Simi Valley, demanded a copy of the survey, which was completed in February.

Gallegly called for testing to determine whether there is ground water contamination beneath the site and a quick cleanup of pollution.

The DOE report criticized officials at the Santa Susana facility, located in Ventura County about three miles west of the Los Angeles city limits, for not preparing EPA documents that considered "in detail all potential hazardous substance release locations."

"Failure to perform a comprehensive investigation may result in undetected contamination," the report said.

The DOE report said its two-week investigation of the site found several new areas of potential contamination by talking with veteran lab workers and reviewing aerial photographs.

"A more complete (Superfund) investigation would include all potential hazardous substance release locations," the report said.

Federal officials said in interviews Wednesday that they did not know whether the toxic and radioactive contamination at the Santa Susana facility, and earlier problems such as eight contamination incidents and accidents acknowledged by the company, would have qualified the site for EPA's National Priorities List.

> *"A company like Rockwell International is a Fortune 500 company. They're making a profit, so they would have the money and resources for such a cleanup."*
>
> — Terry Wilson
> EPA spokesman

Superfund designation requires a company or government agency to complete a detailed survey of contamination, and a cleanup plan to be completed at the responsible party's expense, unless the agency determines it cannot afford the bill, said EPA spokesman Terry Wilson. The Superfund is an $8 billion trust that can supplement cleanup efforts.

"A company like Rockwell International is a Fortune 500 company," Wilson said. "They're making a profit, so they would have the money and resources for such a cleanup."

The list, established under the 1980 Comprehensive Environmental Response Compensation and Liability Act, or CERCLA as the federal Superfund is called, established strict time and financial schedules for companies and government agencies to clean up their sites, federal officials said.

Rocketdyne and DOE operate the Santa Susana Field Lab under an agreement similar to the one between the University of California and DOE at Lawrence Livermore National Laboratory, one of the country's 1,174 Superfund sites, Wilson said. The Livermore site includes both toxic and radioactive contamination, he said.

To determine whether a site qualifies for the Superfund list, EPA considers the extent of contamination and the likelihood that the hazardous materials could follow a pathway through the environment and create "an eminent threat to people or to the environment," Wilson said.

Ng, the consultant who made the 1987 study for the EPA, said the Santa Susana Lab received a relatively low score, based on the non-nuclear information provided for its preliminary assessment. One reason for the low score, he said, is that none of the site's ground water is used as drinking water.

However, he said, disclosure of the nuclear materials would have alerted him to ask additional questions concerning one of 15 wells located within a mile of the facility. The well is used for irrigation purposes three hours each day, he said.

In a statement issued last Friday, Rocketdyne officials said that since 1985 they have sampled 16 wells and springs surrounding the Santa Susana facility on a quarterly basis, and that the samples have shown no radiation or chemical contamination.

Jim Marsen, a spokesman for the state Superfund, also said his investigators were not aware of radioactive material at the Santa Susana Lab when they did a 1985 survey that became the basis for both the state Superfund and federal EPA decisions.

"It's never come up in any of the discussions," he said.

Marsen said he is seeking more information from the DOE, because he is concerned that state inspectors be protected from possible contamination when they enter the site.

State inspectors were aware of chemical ground water contamination at the site, primarily from trichloroethylene and polychloroethylene, both carcinogens, Marsen said.

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Agencies never knew of reactors

State officials say Rocketdyne didn't raise subject of nuclear work, possible contamination

By TONY KNIGHT
Daily News Staff Writer

State water quality and toxic control officials never knew there were extensive nuclear reactor operations and possible radioactive contamination at Rockwell International's Santa Susana Field Laboratory in the Simi Hills, according to documents and interviews.

Officials said they have worked closely with the company for years in a multimillion-dollar cleanup of chemical contamination on the facility in the hills between Simi Valley and Chatsworth but did not learn of radioactive problems until last Sunday when the Daily News disclosed the findings of a new Department of Energy survey.

Representatives of the Regional Water Quality Control Board and state Department of Health Services said officials of the company's Rocketdyne Division, which runs the Santa Susana facility, did not mislead the truth. The company just did not tell them what was going on as it should have, they said.

"The bottom line is that all along we dealt with organic contamination and the other issue (radioactivity) never came up," said Hans Yacoub, a senior engineer with the state Regional Water Quality Control Board.

"For some reason, they made a decision in-house that some of the state agencies do not have jurisdiction, so they did business on that issue with the federal agencies."

Florence Pearson, senior hazardous materials specialist with

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Agencies in dark on Rocketdyne reactors

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the state Department of Health Services' Toxic Substance Control Division, added: "Had we known that (radioactivity) was a problem, I am sure that our approach to the toxics would have been different."

Rocketdyne spokesman Pat Coulter said the company made no effort to hide anything from state agencies.

"I believe you're going to find that we have notified every agency that we were required to notify in accordance with the law," Coulter said. "The bottom line is that we have nothing to hide up there."

The independent environmental survey commissioned by the DOE and conducted last May found 10 areas contaminated with chemicals or radioactive material, evidence of extensive chemical contamination of ground water and the three sites where ground water could be contaminated with radioactivity.

The DOE report said there was no immediate danger to public safety, but criticized inadequate monitoring and testing by Rocketdyne officials.

Water quality and toxic control inspectors said their investigations of the Santa Susana facility focused on the portions of the site devoted to rocket testing and testing of the space shuttle's main engines.

They did not investigate whether there were contamination problems at the 290-acre Nuclear Development Field Laboratory, which occupies the westernmost portion of the SSFL and is operated by the U.S. Department of Energy.

In cooperation with the DOE and the Nuclear Regulatory Commission, Rocketdyne operated at least 16 nuclear reactors at the site at various times since 1954, state and federal records show. None is operational now, and the company and federal agencies are involved in a massive program to dismantle and decontaminate the nuclear facilities.

In interviews last week, regulators with the state water quality board and the health department's Toxic Substance Control Division said they should have been kept informed by the company, given the extent of contamination revealed in the DOE survey.

Both agencies began inquiries last week to see if their jurisdictions should extend to the contaminated nuclear areas.

Stephen Lafflam, Rocketdyne's environmental manager, was called responsibility. Whatever, this issue should have been brought up with us or with the health department."

The state's Toxic Substance Control Division has been overseeing a $3 million company cleanup of 10 toxic pits on the Santa Susana property for the last three years.

But toxics inspectors said they were unaware of the chemical contamination problems discussed in the independent environmental survey. They said they were kept in the dark about the extent of the company's nuclear research facilities.

However, two state agencies that were not involved in the toxic cleanup programs at the site have been involved in regulating nuclear activities at the laboratory.

The state Department of Health Services' Radiological Health Branch in Sacramento reviews annual Radiological Environmental Monitoring Reports prepared by the company and investigates environmental problems.

But records of the agency indicated no major environmental problems at the site.

"They had a lot of activities up there and they spread a little bit of stuff around," said David Spond, health physicist with the Radiological Health Branch. "But we don't think it will be any problem."

Nuclear installations at the site are licensed and inspected by the state Department of Industrial Relations.

Senior Health Physicist Kim Wong, in the department's Van Nuys office, said he was not aware of environmental contamination problems at the site.

He said the actual operations of the nuclear facilities are being done within state guidelines, and he added that the state's jurisdiction on the site is limited because of DOE oversight.

"When they (DOE officials) do it, [illegible] and say, 'You state guys have no jurisdiction here,'" Wong said. "So you sort of have to trust that there are no shenanigans going on."

The DOE environmental survey was part of a nationwide environmental audit of DOE nuclear facilities ordered by former Secretary of Energy John S. Herrington.

An independent consulting team assembled by Nuclear Utility Services of Pittsburgh spent two weeks in May 1988 investigating the 290-acre Nuclear Development Field Laboratory, known as Area IV at the Santa Susana site.

Santa Susana Field Lab was site of major research

By TONY [illegible]
Daily News Staff Writer

During the 1970s and '80s, Rockwell International's sprawling Santa Susana Field Laboratory in the Simi Hills became known as the testing site for the [illegible] main engines of the space shuttle.

But in the 1950s and '60s, the company's Atomics International Division operated one of the largest nuclear research facilities on the West Coast on the 2,900-acre site in the hills west of Chatsworth.

"That was a huge facility," said Kim Wong, senior health physicist with the state Department of Industrial Relations, which licensed some of Rockwell's nuclear installations. "There was a lot going on in the 1960s.

"They developed sodium-cooled reactors, space vehicle power plants, and they were involved in the making of nuclear fuels," he said.

The nuclear operations attracted little attention.

[illegible] last week, [illegible] with the state's Regional Water Quality Control Board and Toxic Substance Control Division said they were not aware of the extent of the nuclear facilities' operations [illegible]

[illegible]

asked, we'd have been more than happy to answer any questions. It's not the kind of thing that we go to the newspaper and say, 'Hey, take a look at this.'"

State and federal records show that as many as 16 reactors operated on these facilities from 1954 to 1982.

Nuclear research was carried out in more than 20 buildings located on the 290-acre Nuclear Development Field Laboratory on the field's northwestern section, which is closest to Simi Valley.

Most of the nuclear facilities have been torn down and removed to licensed nuclear waste dumps over the past 14 years. But the company continues to operate two major nuclear facilities, the Radioactive Material Disposal Facility and the Hot Cell Laboratory.

The RMDF is a complex of nine buildings where nuclear wastes are packaged and readied for shipment to a nuclear waste dump. Highly radioactive wastes are stored [illegible] at the facility.

The Hot Cell Laboratory was designed to process highly radioactive spent fuel rods from nuclear reactors. The facility [illegible] [illegible] The fuel is then [illegible]

[illegible]

A rocket test at Rocketdyne's [illegible] Santa Susana Field Laboratory [illegible]

[illegible]

destructive remnants of a space-based nuclear reactor research program remain. Also, high levels of chemical solvent contamination has been found in ground water contamination and ordered the company to spend $1.5 million on a massive treatment system, all without knowledge of the problems revealed in the DOE survey. very difficult to drill in that bedrock."

As the regional board's investigation continued through the mid-'80s, it became clear that open pits the DOE survey reported. "No information was available on the amount or type of waste contained, when it was removed, or where it was removed, or [illegible]

Agencies in dark on Rocketdyne reactors

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the state Department of Health Services' Toxic Substance Control Division, added: "Had we known that (radioactivity) was a problem, I am sure that our approach to the toxics would have been different."

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Santa Susana Field Lab was site of major research

By [illegible]
Daily News Staff Writer

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The nuclear operations [illegible] of both agencies [illegible]

[illegible]

[illegible] asked, we'd have been more than happy to answer any questions. It's not the kind of thing that we go to the newspapers and say, 'Here, take a look at this.'"

State and federal records show that as many as 16 reactors operated on Santa Susana [illegible] 1954 to 1982.

Nuclear research was carried out in more than 20 buildings located on the 290-acre Nuclear Development Field Laboratory on the field's northwestern section, which is closest to Simi Valley.

Most of the nuclear facilities have been torn down and removed to licensed nuclear waste dumps over the past 14 years. But the company continues to operate two major nuclear facilities, the Radioactive Material Disposal Facility and the Hot Cell Laboratory.

The RMDF is a complex of [illegible] buildings where nuclear wastes are packaged and readied for shipment to a nuclear waste dump. Highly radioactive [illegible]

[illegible]

A [illegible]

[illegible]

[illegible] dissolve remnants of a space-based nuclear reactor [illegible] program [illegible]. Also, high levels of chemical solvent contamination has been found in ground water [illegible] contamination and ordered the company to spend $1.5 million on a massive treatment system, all without knowledge of the problems revealed in the DOE survey.

[illegible] very difficult to deal in that fashion."

As the regional board's investigation continued through the [illegible], it became clear that [illegible]

[illegible] the DOE survey reported. "By the [illegible] was available for the amount of type of waste [illegible] when it was [illegible]

on Thursday to answer questions about a sodium burn pit where the DOE survey found contamination, said Jim Marsen, spokesman for the agency.

"It was pretty much described as containing radioactive and toxic materials," Marsen said. "He said that it could just about contain anything."

"We submitted a plan to clean up the sodium burn pit for their approval," Coulter said. "It calls for $1.5 million next year and it's a two-year program. We've been working very closely with DOE to clean up the sodium burn pit."

Yacoub, the water quality engineer who began a ground-water contamination investigation at the SSFL in 1983, said his agency also has begun looking at possible problems at the facility in light of the DOE report.

"We had an excellent working relationship with Rockwell, except when this nuclear came up," Yacoub said.

Yacoub said the company has spent more than $1 million constructing six treatment facilities that pump out and cleanse ground water contaminated with volatile chemicals. He said he was unaware of the ground-water problems disclosed in the DOE study.

"The best I can say is that I'm disappointed at not being informed," Yacoub said. "I don't know whether to call it courtesy or

with representatives of the state Department of Health Services and the Ventura County Fire Department "to identify any environmental concerns they might have."

"The representatives did not identify any existing environmental problems or raise any major environmental concerns about SSFL," the report states.

State water and toxic control officials said they were not invited to that meeting.

The DOE survey found three areas where radioactive materials could have contaminated the ground water and concluded that extensive monitoring must be completed to determine if ground-water supplies on the site are contaminated.

Both regional board and toxics officials said radioactivity is out of their jurisdiction. But the report outlined other contamination problems that would appear to fall into the jurisdiction of one or both agencies.

The report said ground water has been contaminated by chemicals buried at the sodium burn pit. During the 1960s and 1970s, flammable chemicals were poured into open pits and burned, and unauthorized radioactively contaminated equipment was buried in trenches and scattered on the surface.

Since 1983, ground water has been leaking into the lower levels of Building 59 where the highly ra-

The report said an accidental spill of radioactive water into a leach field in the early 1960s wasn't discovered until 1975 and the cleanup did not include a comprehensive investigation to determine if the ground water had been contaminated.

The report concluded that ground-water monitoring wells at the facility are not placed properly to determine the extent of any of the newly revealed problems and that a major program must be undertaken to determine the extent, if any, of chemical and radioactive ground-water contamination.

Yacoub, the water quality engineer, said he was unaware of all of these problems. He said he asked the company for a complete site assessment in 1983, at a time when the DOE survey shows the company knew of the problem in Building 59.

Coulter said the company informed Yacoub of the Building 59 problem in a May 1986 letter. He did not provide a copy of the text of the letter, or read any part of the text.

"I went back over the reports," Yacoub said. "We were not aware of those things. If we had known about those things, we would have taken appropriate action."

Since 1983, the regional board ordered the placement of more than 100 monitoring wells to determine the extent of ground-water

they reported (several) contamination," Yacoub said. "They came here to my office and reported it verbally."

Yacoub said he ordered a work plan for an investigation to determine the extent of the contamination and the company submitted an unsatisfactory plan. Yacoub said he then met with the company's top officials at the Santa Susana site.

"There was the big brass, everybody was up there," Yacoub said. "I did all the talking. I explained to them where we were coming from, the justification I had to do a very comprehensive assessment of the facility.

"That was the breaking point. After that meeting they called me and said 'Hank, You're going to get what you want.'"

Yacoub said the company should have disclosed the problems at the nuclear installations.

"Maybe we would have told them, 'Fine, you guys are dealing with the Nuclear Regulatory Commission or the DOE. That's fine with us. But just keep us informed.'

"Perhaps we could have done a more meaningful and more logical work in locating the ground-water monitoring wells, and maybe saved them some money in the long run. Because if indeed the existing monitoring wells are far away from the so-called radioactive sites or burn pits, I can assure you they are going to spend millions of dollars. It is

test engines also would have to be cleaned up, and the state's Toxic Substance Control Division, which was created in 1984, gradually took over the lead role in the cleanup.

The division has overseen the closure of nine toxic pits and closure of a 10th is under way, Coulter, the Rocketdyne spokesman, said the company has spent $3 million on this effort.

Toxics inspectors said they were aware of the sodium burn pit, but thought it had been cleaned up in 1980.

A June 10, 1983, inspection report in division files indicates that the burn pit was not included in the company's initial permit application submitted to comply with new toxics laws that went into effect in 1986.

"During the course of an excavation in this area, significant deposits of hazardous wastes were unexpectedly encountered," states the June 1983 inspection report. "Hazardous wastes and contaminated soils were excavated and removed to a . . . disposal site."

The DOE survey conducted in May 1988 says the one-acre burn pit is contaminated with chlorinated organics, heavy metals and low levels of radioactivity, and there is a potential for release of contaminants off the site through rain water runoff.

"Some waste was removed in the early 1980s, after a new sodium burn facility was opened in 1978"

cleaned up."

The DOE survey quotes extensively from a Superfund site inspection conducted in 1986. State toxics investigators said they knew nothing of that investigation.

The survey said the Superfund investigation was conducted from March 31 to April 2, 1986. The company dug 23 trenches, the survey said, to determine the extent of contamination.

The survey said the trench locations were "biased" because they were not dug in the radioactive areas. That was done, the survey said, so that the lab analysts wouldn't have to contend with radioactive dangers while examining the samples for chemical contamination.

"Because radioactive and nonradioactive wastes were probably buried and released together, but avoiding radioactive areas, the sampling program probably also avoided non-radioactive areas," the survey said.

Marsen said the 1987 investigation was the burn pit might have been done by the federal Environmental Protection Agency.

But EPA spokesman Terry Wilson said he was unaware of the report.

"The state Health Department and the Regional (water) Board are the ones who are taking the lead at the site," Wilson said.

Rockwell 17 months past deadline on hazard inventory

By BETH BARRETT
Daily News Staff Writer

Rockwell International is 17 months behind schedule in completing a state-mandated inventory of toxic and radioactive materials at its nuclear testing facility in the Simi Hills three miles west of Chatsworth, according to Ventura County fire and air quality officials.

The company's Rocketdyne facility also has started using an open-air system for cleaning up toxic chemicals that have contaminated ground water at its Santa Susana Field Laboratory without first notifying the county as required, the officials said.

Craig Morgan, Ventura County fire prevention officer, said Rocketdyne provided the county with a partial inventory a month ago although the company did not mention nuclear materials.

Rocketdyne has not been cited or fined for failing to complete the inventory of toxic and radioactive materials, he said. Several other large companies in the county have not complied with a 1987 state law that required the inventories by Jan. 1, 1988, he said.

"We have to get a complete inventory of anything that is hazardous to the public or to firefighters," Morgan said. "The public has a right to know, and firefighters need to know what they have to fight.

Rocketdyne spokesman Pat Coulter said the company has met all notification demands made by local agencies.

"We believe we've complied with all reporting requirements to all the agencies that have jurisdiction over the businesses we conduct at Santa Susana," Coulter said.

Concern among local officials over operations of the Santa Susana reactor research facility has been heightened by disclosure in the Daily News of a Department of Energy survey, which found radioactive contamination at buildings and on equipment used to test nuclear reactors for more than 40 years.

The DOE study found 10 areas of toxic and radioactive contamination near the nuclear facility and called for more extensive testing.

Both the departments and Rocketdyne officials have said there is no immediate danger to public health.

The Rocketdyne facility has not been a major concern for Ventura County fire officials because the company's firefighters are expected to know what hazardous materials are kept at the 2,600-acre site, Ventura County Deputy Fire Chief Bob Holloway said.

"We know they had hazardous materials," Holloway said. "They had a fire station and we knew they would provide us with information if we went up there."

Morgan said Rocketdyne has promised to provide a computer list of all hazardous substances to the county within a couple of months.

He said the inventory must include nuclear materials contained on the 290-acre Nuclear Development Field Laboratory site, which Rocketdyne operates for the Department of Energy.

"They have a lot of bad things up there," Morgan said.

Morgan said it has been difficult for Fire Department officials to gain access to the DOE site.

"We have to get into the DOE site and look around at the vast inventory," Morgan said. "But we have to go through steps to get into the DOE parts."

He said he had informal knowledge that Rocketdyne had radioactive contamination or material on the site, which at one time was among the largest nuclear reactor testing sites on the West Coast.

"It was word-of-mouth in the office," Morgan said.

Ventura County officials also said they have not been notified that Rocketdyne is operating air stripping towers at six locations to remove trichloroethylene and other volatile organic compounds from contaminated ground water, said Karl Krause, manager of the Ventura County Air Pollution Control District engineering section.

"They should have notified us," Krause said. "As far as we know, they never got them running."

Coulter said the columns are

operating, and that the company spent $1.5 million on them as part of a state-mandated cleanup of toxic substances found in the ground water at the site.

He said he was uncertain whether the company had notified Ventura County officials or whether notification was required.

The filtration columns are outside Rocketdyne's nuclear facility area.

Krause said the county issued permits for two of the carbon-filled columns on Oct. 22, 1986, and for five others on Sept. 10, 1987. But he said company officials have announced that they will are using the columns, and that they are not yet in operation.

"We were waiting for them to tell us the things were fixed and operating," Krause said. "We would have required testing from the towers for emissions."

Daily News 5/14/87

State launches inquiry

Health officials seek facts on Rocketdyne

By TOFFY KNIGHT
and SANDY HARRISON
Daily News Staff Writers

State health officials said Thursday that they have launched a fact-finding inquiry into toxic contamination at Rockwell International's nuclear research facility in the hills between Chatsworth and Simi Valley.

Officials said that they were unaware of radioactive contamination at the site where nuclear reactor testing has been going on for more than 40 years, and do not have authority to look into the problem because it is under federal control.

"We've been in the dark for so long on this thing, that we kind of feel that we don't know what's going on," said Jim Marxsen, spokesman for the Department of Health Services Toxic Substance Control Division.

"We're going to have to re-evaluate our approach to this site," Marxsen said. "To a person, our inspectors were not aware of any nuclear facilities or radioactive waste."

Officials of Rocketdyne Division of Rockwell International have said that there is no immediate danger posed by the contamination but have refused to discuss specific details.

The Daily News reported Sunday that a survey conducted for the U.S. Department of Energy

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Inquiry is begun by state

TOXIC / From Page 1

found toxic and radioactive contamination at the Santa Susana Field Laboratory, which is operated by Rocketdyne. The survey said that there was no immediate danger to public safety but called for further tests to determine the extent of contamination.

Marxsen said in an interview Thursday that the state health department's Toxic Substance Control Division could order a cleanup of the chemically contaminated sites. But he said that jurisdiction over the area was unclear because the area in question was under control of the U.S. Department of Energy.

Three years ago, state toxics officials began a cleanup program of 10 toxic pits at the 2,600-acre Santa Susana Field Laboratory three miles west of Chatsworth.

But division investigators said that they were unaware of any toxic problems at the 290-acre Nuclear Development Field Laboratory, which covers the western-most portion of the Santa Susana site and is under DOE control.

Investigators at the division's Burbank office said that they were stunned by the Department of Energy survey finding 10 areas of toxic and radioactive contamination near the nuclear facilities.

Rocketdyne officials said Thursday that they didn't know who should have jurisdiction over the contaminated area near the nuclear facilities.

"That's something that we're going to have to take a hard look at," said spokesman Pat Coulter.

Stephen Lafflam, Rocketdyne's environmental manager, met Thursday morning for two hours with toxic-waste officials in Burbank, Marxsen said.

He said that Lafflam outlined contamination problems around the nuclear facilities, including a 50,000-square-foot sodium burn pit, which was identified in the DOE survey as being contaminated with toxic chemicals and radioac-

Larry Peterson, a special hazardous-materials specialist, said Lafflam explained that state toxics officials were not told of the burn pit because the company did not believe that it was in their jurisdiction.

"Steve Lafflam explained it that (they've always considered) this a DOE facility and they've always reported it to DOE," Peterson said. "That's all they felt that they had to deal with. It was between Rockwell and DOE."

Peterson said that state toxics officials asked Lafflam to supply them with a copy of the DOE environmental survey, which they have not seen, but he was unable to do so.

The draft report was released Tuesday to Rep. Elton Gallegly, R-Simi Valley, but officials of various local and state agencies said Thursday that they have been unable to get copies of the report.

Assemblywoman Cathie Wright, R-Simi Valley, met Thursday in Sacramento with David Willis, deputy director for the department's Toxic Substances Control Division, for a briefing on the contamination problem.

"We'll review everything and advise Ms. Wright of whatever we find," said Willis. He said that he is waiting to receive the DOE report.

State records show that the Toxic Substance Control Division licenses a sodium burning and storage operations within the DOE-controlled area. State inspectors have visited the facilities many times over the years, but they were unaware of the extensive nuclear-research operations going on the buildings around them, Marxsen said.

Inspector Mary Osborne made one of the most recent visits to the site.

"The company officials didn't mention it (their nuclear activities)," she said. "There was no information that led me to believe there was any radioactivity on site."

Rocketdyne has conducted an Environmental Monitoring Program within a 10-mile radius of the nuclear facilities since 1954. The reports have been sent to the DOE and to the state Department of Health Services Radiological Health Branch in Sacramento.

Reports through 1987 indicate none of the problems uncovered in the latest DOE survey, which was done in May 1988 by an independent consultant.

Coulter, the Rocketdyne spokesman, said that the company's 1988 report on environmental monitoring has been completed and sent to DOE officials.

Simi officials question data from DOE

By [illegible]
Daily News Staff Writer

5/20/89

SIMI VALLEY — Simi Valley officials reacted with skepticism and dissatisfaction Friday after getting their first look at the report on a federal survey that found radioactive contamination at Rockwell International's Santa Susana Field Laboratory.

"It appears to me that a lot of the information that they included in this report was gathered by Rocketdyne," Simi Valley Councilman Bill Davis said. "Are they accepting that? Have they really checked on what is in there?"

City Councilman Ann Rock added, "Their whole program was laid out, along with what they were going to do. Apparently they brought together a number of public agencies, but they didn't know there was a city two miles to the west. We're just hearing about it now. This is the sort of tactic the federal right-to-know laws were enacted to prevent."

City officials said, however, that they will need several days to read the technical, 200-page document. Copies of the report were sent to City Council members at the request of Rep. Elton Gallegly, R-Simi Valley, who obtained his own copy after news of its contents was reported in the Daily News on Sunday.

The Department of Energy report describes contamination at Rockwell's Rocketdyne division facility, located in the hills between Simi Valley and Chatsworth. The report indicates that there is no immediate health threat to the surrounding communities.

Davis said that if the government has conducted no independent verification, "then I say that the EPA (Environmental Protection Agency) did a bad job, that they didn't go up and investigate."

Rock said federal officials might have decided to contact only government agencies with permit authority over the field laboratory.

"(But) in terms of sharing information, sometimes you have to look at the spirit rather than the letter of the law."

Rock also criticized government officials responsible for issuing the survey report, which was dated February 1989.

"One has to assume that it was issued, or capable of being issued, around then," she said. "And we're just hearing about it now. That's not what I expect of those people responsible for our health, safety and welfare."

City Councilwoman Vicky Howard said she expects to read the report over the weekend. She is concerned that the potential surface drainage of ground water from the Rocketdyne site could contaminate people, pets or wildlife in Simi Valley.

DAILY NEWS 5/20/89

Daily News 5/20/89

River radiation level higher than thought, but water safe

By BETH BARRETT
Daily News Staff Writer

Related story:
■ San Valley officials react to report with skepticism. Page 14

Los Angeles River water drawn in Reseda is safe but registers much higher radioactivity than samples from San Fernando Valley wells used for drinking water, according to test results released Friday by a Los Angeles city engineer.

The radiation levels are surprising but still within state and federal safety standards, said Bruce Kuebler, chief engineer of the Department of Water and Power's Water Quality Division.

The test was ordered by Mayor Tom Bradley after the Daily

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River radiation surprisingly high, but still safe

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News reported Sunday that a federal survey found radioactive and toxic contamination at Rockwell International's nuclear testing facility in the hills between Simi Valley and Chatsworth.

Both the DOE and officials of Rockwell's Rocketdyne Division, which runs the nuclear facility, said there is no immediate danger to public safety.

Kuebler said there is no indication that the radioactivity found by DWP originated at the site operated by the company's Rocketdyne Division. The DWP report to Bradley is due Wednesday.

"It's higher, and I don't know what that means," Kuebler said. "But this is the first data we've ever taken from the river."

Rocketdyne spokesman Pat Coulter said there was not "the remotest possibility" that radioactivity came from the Santa Susana Field Laboratory in the Simi hills.

"There is no radioactivity leaving the Santa Susana site and migrating off site," he said.

Rocketdyne's monitoring reports of Bell Creek, which flows into the Los Angeles River, show radiation levels well within safety standards, documents show.

Water drawn where the river crosses under Balboa Boulevard tested at 42 picocuries per liter for beta particles compared to .8 to 4.6 picocuries per liter in the wells, he said, adding the safety standard is 50 picocuries per liter. The picocurie is a standard measure of radioactivity.

> "I might be concerned if we had enough data to show it (radioactivity) was increasing, or that there were spikes to show someone had dumped things into it."
>
> — Bruce Kuebler
> Department of Water and Power's Water Quality Division engineer

Kuebler said the single sample from the Los Angeles River does not give city engineers enough information to make a meaningful report to Bradley.

"I might be concerned if we had enough data to show it (radioactivity) was increasing, or that there were spikes to show someone had dumped things into it," he said.

The sample from the river also was tested for alpha radiation, he said. It showed levels of 12 picocuries per liter for alpha particles, compared to levels of 1 to 2.1 picocuries per liter for alpha particles in three North Hollywood wells pumped for drinking water. The safe standard is 15 picocuries per liter, Kuebler said.

DWP officials were unable to sample nine Reseda wells — none of them used for drinking water — within about six miles of the Santa Susana Lab because there was no water in them earlier this week, Kuebler said. The wells are pumped during heavy rains to prevent formation of bogs on the Valley floor.

The city has limited data on between 70 and 80 San Fernando Valley wells used for drinking water located between 10 and 15 miles from the Rocketdyne site, Kuebler said.

Those measurements are mostly five years old but three wells tested in 1989 showed levels more than five times above the safe standards, Kuebler said.

Kuebler said the Los Angeles River is not used for drinking water, and could only enter the ground along a seven-mile unlined strip near Griffith Park before it tumbles into the Pacific Ocean at Long Beach.

Kuebler said no additional tests of the river are planned immediately.

However, tests for radiation will continue in San Fernando Valley wells that make up about 15 percent of the city's water supply, pumping 90 million gallons each day.

A five-year investigation by the California Regional Water Quality Control Board has determined that ground water does not migrate from the Santa Susana facility to the San Fernando Valley ground water basin, said Hank Yacoub, the senior engineer on the project.

DAILY NEWS / SUNDAY, MAY 21, 1989

dyne neighbors alarmed

Santa Susana Knolls residents fear radiation, toxics pose long-term hazards

By MIKE COMEAUX
Daily News Staff Writer

SANTA SUSANA — Melissa and Walter Kelley began worrying last week that the home they bought 13 months ago in Santa Susana Knolls might be an unhealthy place to raise children.

A U.S. Department of Energy survey made public last week describes radioactive and toxic contamination at a Rocketdyne nuclear facility less than three miles uphill from the Kelley's home. The report indicated that there is no immediate danger to human life.

But the Kelleys are expecting their first child in July, and their fears are for the long term. Walter Kelley is building an extra room on the house in Santa Susana Knolls. But the couple is afraid that living so close the the Rocketdyne property could be dangerous for their baby.

"I'm concerned about it," Melissa Kelley said. And she says she's pessimistic about the outcome of further tests. "They're probably going to find out there's more contamination," she predicted. "I don't know that we'd want to move out. We might."

The Kelleys aren't alone. Other residents interviewed last week at their homes in the vicinity of the Rocketdyne field laboratory also are fearful of unknown dangers and want authorities to undertake comprehensive tests. In the meantime, they say they doubt anyone will tell them the full story, so all they can do is hope that Rockwell has acted responsibly, several said.

Tom Sherlock, a sound recordist in the film industry who lives on Box Canyon Road, said the DOE survey convinced him to drop his plan of building a house in the hills.

"I was planning to build a house between here and Rocketdyne. I'll probably find someplace else because of that," Sherlock said. "My wife is about 7½

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Rocketdyne contamination causes alarm

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months pregnant, and she really doesn't want to stay up on the hill."

Santa Susana Knolls homeowners Nick and Ann Martini moved to the area because they thought it a safe place to raise a family. Now they're not so sure.

"I don't trust my government a whole lot. Our government doesn't tell us the complete truth," Martini said as he and his wife built a picket fence around their front yard on narrow Cedar Street in a neighborhood of small lots clinging to a hillside north of Rocketdyne. They have lived there three years.

"I don't think we'll ever know the truth or how bad it is," said Mary Ann Martini. "We like the neighborhood. We picked this neighborhood because we felt it was one of the nicest locations to raise a child. But we still don't know what the truth is."

Nick Martini said that he is reassured by the presence of neighbors who work for Rocketdyne. Martini said he figures they would know about problems, if any exist. "If they're willing to live here, if they're willing to sweat it out, I guess I will." Still, he is torn. "I could never let my child live in an area where she'll develop cancer in 10 years. I could never do that."

Mary Ann Martini said her neighbors will demand corrective action if health hazards are proven. "We would definitely get together and do something," she said.

> *"I'm concerned about it. They're probably going to find out there's more contamination. I don't know that we'd want to move out. We might."*
>
> — Santa Susana Knolls resident Melissa Kelley

Box Canyon Road landowner John Pringle said he's reserving judgment and will give the benefit of the doubt to Rocketdyne, a division of El Segundo-based Rockwell International. "I've got to believe that it doesn't cause any health hazard. I don't believe Rockwell International would allow anything like that."

Pringle said he looks forward to more detailed findings. "I want to see what Rocketdyne does and the EPA says. There are a lot of people ready, willing and able to panic at the drop of a hat. We don't need any more."

Residents of the Chatsworth Lake Manor region along the Ventura-Los Angeles county line say they, too, want more information.

"I didn't realize there was a nuclear reactor up there," said homeowner Larry Mazer, who said he is fearful of airborne pollutants. "It's always windy out here in this area in the summer evenings," he said. "The canyons get very windy. That would concern me."

Alan Holland, a cabinetmaker, said comprehensive tests should be undertaken. "How far has the thing really spread? Who knows, unless they're willing to do some kind of comprehensive study about how far the contamination has spread from that area. I think they should."

"It was typical company policy 30 years ago to just dump it where you could. We thought th[illegible] was very big then. Now, we're finding out it's not. The history of what we've done is catching up with us."

"The government should establish guidelines the company can live with. I don't want to put any company out of business. (But) I don't want to see them going on with the indiscriminate dumping they've had in the past."

Daily News 5/21/89

Lab cleanup: $55 million, 20 years

Water quality board demands contamination problem data

By TONY BARRETT
Daily News Staff Writer

Regional Water Quality Control Board members voted unanimously Monday to demand that Rockwell International Corp. fully disclose toxic and radioactive contamination problems at the Santa Susana Field Laboratory in the Simi Hills.

Water quality officials have overseen a massive groundwater cleanup program at the rocket engine testing portions of the 2,668-acre Santa Susana site since 1983, but they said the company did not tell them of ground water and radiation contamination problems at the 290-acre nuclear research portion of the site.

"It's just another giant coun-

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Costs at Rocketdyne site could rise

By MARK BARABAK
Daily News Washington Bureau

WASHINGTON — The Department of Energy says it will cost at least $55 million and take more than 20 years to clean up radioactive and toxic contamination at Rockwell International's Santa Susana Field Laboratory, according to a report obtained Monday.

The December 1988 report, produced under former Energy Secretary John S. Herrington and obtained from congressional sources, provides the most recent timetable and cost estimates for the government's cleanup of the 290-acre nuclear research facility in the hills between Chatsworth and Simi Valley.

Toxic and radioactive contamination at the 40-year-old Santa Susana Field Laboratory was discovered by the Daily News on May 14, based on a recently completed environmental survey of the facility and other nuclear sites around the country.

Officials of the DOE and the Rocketdyne Division of Rockwell, which operates the Santa Susana facility, have said that there is no immediate danger to the public from contamination at the site.

DOE officials would not discuss the projected cleanup costs, explaining that new estimates are being formed as part of a five-year cleanup plan initiated by the new energy secretary, James D. Watkins.

The Watkins plan, scheduled

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Report puts cleanup at $55 million, 20 years

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for completion in August, will supercede all previous cleanup projections, including those contained in the December report, DOE spokeswoman Christina Sankey said.

"The numbers may ultimately not be all that different, but they are subject to change," Sankey said.

Because contamination at DOE sites was caused by work performed under contract with the Energy Department, virtually all money for the cleanup will come from public funds, Sankey said.

The cleanup will cost millions of dollars and take decades in any event, officials said.

"You have to take the long view," said Wolfgang Rosenberg, DOE's regional spokesman in Oakland. "You can't fix in four days or four weeks or four months what it took 40 years to create."

Data from the environmental survey, which was conducted last May by DOE consultants who recommended further study to determine the extent of contamination, was used to estimate the cost and timetable for site cleanup in the December report. But the document provides only broad details of what needs to be done at Santa Susana, officials said.

It estimates a total cost of between $55.1 million and $61.1 million over more than two decades to remove contamination from buildings, soil and ground water.

Nearly 60 percent of the monies will be needed to clean up the environment and protect health and safety at the facility, which is operated under DOE contract by Rocketdyne, the report said.

The remaining funds will be needed to decontaminate buildings that are hot with radioactivity from nuclear research work and return them to general use.

The cleanup projections will be updated in August when Watkins releases a draft of his own five-year plan for cleaning up DOE sites across the country.

Watkins' plan also will place priorities on cleanup expenditures for at least 35 DOE sites, which last December's report did not attempt to do.

"The amounts stated in this report are based on the assumption that budgets would be unconstrained," the report states.

Priorities established by Watkins will determine which sites get cleaned up first because the money must be authorized by Congress and included in the DOE budget.

The estimated expenditures for Santa Susana include at least $6.14 million for "remedial" environmental cleanup and $4 million for less severe "corrective" environmental cleanup at the site.

An additional $8.9 million will be required to maintain routine, day-to-day environmental controls during the long cleanup process, and $12.5 million will be needed for routine health and safety measures.

At least $800,000 will be needed to manage disposal of radioactive and mixed wastes, and $22.5 million will be necessary to decontaminate and decommission buildings now tainted by radioactivity, the report estimated.

The entire process will take more than two decades to complete, the report estimated — including at least 20 years before the extent of the problem can be fully assessed and seven more years to eliminate the contamination.

Decontamination work is also projected to last more than two decades, including at least 10 years for maintenance and surveillance of the buildings and 10 more years to clean them up.

The needs assessment report, completed in December, cites several environmental problems identified last May by a team of consultants that surveyed the Santa Susana facility.

The survey team determined there was no immediate danger to public safety, but criticized Rocketdyne officials for inadequate monitoring and testing.

The consultants found 10 areas contaminated with chemicals or radioactive material, extensive chemical contamination of ground water, and three places where ground water could be contaminated with radioactivity.

Key problem areas cited in their report included a sodium burn pit, once used to dispose of toxic chemicals and radiation contaminated equipment; Building 059, where Rockwell conducted reactor experiments for possible use in space in the 1960s; a conservation yard where hundreds of drums and equipment were once stored; and a landfill where drums of hazardous wastes were dumped.

The burn pit remains contaminated by chemicals and radioactivity, primarily Cesium 137. Building 059 has radioactive contamination in the basement, and ground water is seeping in — forcing Rocketdyne officials to constantly pump it out to prevent contamination outside the building.

The conservation yard and landfill were cited as potential sources of contamination by the survey team, which urged further studies to determine the extent of the problem.

In projecting cost estimates for cleaning up the site, the needs assessment focused on several problems cited in the survey team's report.

The $6.14 million projected for "remedial" environmental cleanup, for example, is needed to clean up the sodium burn pit, Building 059, the landfill and the soil around another location, Building 064.

The $4 million projected for corrective environmental work includes cleanup of the conservation yard and investigating 10 former disposal sites where contamination may still exist.

The $22.5 million for decontamination and clear them for non-nuclear uses includes expenditures for Building 059 and four others used in the past for nuclear research.

Water board demands contamination data

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pany that is very uninterested in cleaning up the ground water," said board member Paul D. Ehmen. "If we let them go, if we let them slide by, then I don't think we're doing our duty."

A spokesman for Rockwell's Rocketdyne Division, which operates the Santa Susana site, said the regional board will be informed of contamination problems.

"We have complied with all the rules and regulations that require reporting," said company spokesman Pat Coulter.

Board members said they did not not learn of radioactive contamination until the Daily News reported May 14 that an independent environmental survey ordered by the U.S. Department of Energy had found the problem and urged further study.

Both the DOE and Rocketdyne officials have said there is no immediate danger to the public.

Ten areas contaminated with either chemical or radioactive materials were found during a two-week environmental survey conducted in May 1988 by a team of independent consultants hired by the DOE.

Several areas have ground water contamination with toxic chemicals and there are three areas where radioactive contamination of the ground water could have occurred, the report said.

Regional board investigators said they were unaware of the DOE environmental survey.

"Somewhere, somehow, there's some kind of breakdown," said Hank Yacoub, the regional board's supervising engineer. "We have been taken out of the loop. They toured all these areas, but they didn't tell anybody. They told DOE."

The company released a May 15, 1986, letter on Monday that indicated Yacoub had been notified of at least one of the ground water problems involving water seepage into the basement of one building that contained radioactive contamination.

"We're not going to get into any kind of discussion as to whether the company intentionally left anybody out of the loop," Coulter said.

Yacoub said he was not able to locate the letter in his files.

Under orders from the regional board, the company has spent $1.5 million over the past six years on ground water monitoring wells and the construction of decontamination facilities to treat 126 million gallons of ground water annually.

But the monitoring wells and treatment facilities are not designed to deal with the new problems revealed in the DOE study, Yacoub said. He said the board could order the company to dig new monitoring wells and would consider doing so after reviewing all the relevant documents.

"If there are new monitoring wells, we are going to have a say in where they go," Yacoub said. "It will not be DOE."

Yacoub said he would try to arrange a meeting between officials of the regional board, the state's Toxic Substance Control Division, DOE, the U.S. Environmental Protection Agency and the Ventura County Environmental Health and Technical Services Section "to decide who should do what."

The Toxic Substance Control Division has conducted an investigation into chemical contamination surrounding 10 toxic pits in the rocket testing areas of the site. But toxics investigators said they were unaware of the problems surrounding the nuclear facilities.

According to the DOE study, the survey consultant team met with local officials on April 6, 1988, at the Santa Susana facility to discuss environmental problems.

The report states that representatives of the state Department of Health Services and the Ventura County Fire Department were there.

"The representatives did not identify any existing environmental problems or raise any major environmental concerns about SSFL," the DOE survey reported.

Daily News 5/22/89

2 wells near lab had excessive radiation

By BETH BARRETT
and TONY KNIGHT
Daily News Staff Writers

Two of 14 private water wells within a mile of Rockwell International's nuclear research facility in the Simi Hills tested slightly higher than the state safe radiation standard for community drinking water in 1986, records show.

A third well exceeded that standard in one test sample last year but was within the standard for an annual average of samples tested.

Officials of Rockwell's Rocketdyne Division, which operates the Santa Susana Field Laboratory in the hills between Chatsworth and Simi Valley, have tested the wells for radiation since 1986.

The Rocketdyne tests filed with the state show that the two wells with radiation levels above the standard were tested four times in 1986, the records indicate. The same wells exceeded the standard in one test sample in 1987 and 1988 but retests

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Radiation standard exceeded at wells near Rockwell lab

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showed an annual average below the standard.

Rocketdyne officials said the radiation was not due to operations of the 40-year-old nuclear research facility and did not pose a public health risk.

The Daily News reported on May 14 that a Defense Department survey of nuclear sites across the country found that 10 areas of the Santa Susana facility were contaminated with chemicals or radioactive material, including three places where ground water could be contaminated with radioactivity.

But company and government officials said there was no immediate threat to public safety and they have found no evidence that the radioactive contamination left the site.

The reports on radiation in the wells pay one is not in use, the second provides water for livestock and the third provides water for domestic use.

Pat Coulter, the Rocketdyne spokesman, said the company talked with the property owners and determined none of the three wells actually provided water for human consumption.

Rocketdyne also determined through tests that none of the radioactivity was caused by the company's operations, said Coulter.

David Speed, health physicist with the state Health Department's radiological health branch, said there was no evidence that the radiation came from the nuclear reactor research facility.

The state has not closed the wells, ordered the company to do more tests or alerted the public because the radiation levels tested only slightly higher than the standard, and were presumed to reflect natural radiation found in bedrock, Speed said in a telephone interview from Sacramento.

"The regulations are pretty conservative for community drinking standards," Speed said. "When you talk about affecting thousands of people, you can afford to clean it up. . . . There are no standards for private wells. You get into a cost-benefit analysis (with one well) where it will cost too much for you to afford to drink the water."

Coulter said that the tests reflect natural occurring radiation, and not off-site contamination from the Santa Susana Field Laboratory three miles west of Chatsworth.

He said the company did not officially notify the property owners because the state standard does not apply to private wells.

"We didn't notify them because this is not a public water system," Coulter said.

The state standard for public drinking water on a yearly average is 15 picocuries per liter. A picocurie is a standard form of measurement of radiation, equal to one-trillionth of a curie, which is the standard form of measuring radiation.

According to radiological environmental monitoring reports prepared by the company and filed with the state, the tests at the three wells show individual samples that range from a low of 15.11 picocuries per liter for alpha particles to a high of 35.11 picocuries per liter for alpha particles.

In 1986, two of the wells near the top of Woolsey Canyon Road in Los Angeles County just east of the site averaged slightly over 19 picocuries per liter for alpha particles, according to the monitoring report.

The third well is below the nuclear research site toward Simi Valley. A September 1988 sample tested 15.11 picocuries per liter for alpha particles, but the annual average for the well was reported at 2.53 picocuries per liter, the report said.

Of the two wells along Woolsey Canyon Road, one is not used and the second is pumped only for landscaping, Coulter said.

Rocketdyne officials inquired about the water's use at the second well and were told it was used for landscaping, but did not give the property owner an official notification of its radiation content, Coulter said.

"We were not required to because it is not a public water system, and this was natural radiation," Coulter said.

The radiation in the Woolsey Canyon wells, Coulter said, was determined not to have come from the 290-acre Nuclear Development Field Laboratory where the company operated at least 16 nuclear reactors since 1954, because the wells are uphill from the site.

The third well is toward Simi Valley and downhill from the nuclear research facility, but Coulter said off-site contamination was ruled out after Rocketdyne officials used sophisticated testing methods that identified the radiation as natural.

"There is no reason to believe that there is anything but natural-occurring radiation," Coulter said.

Speed, a regulator with only one of two public agencies to review the company's monitoring program, said that the health department never demanded that Rocketdyne officials prove the radiation in the wells was not from its facility.

"We assume they (Rocketdyne) would report an irregular gamma (test)," Speed said.

The state does not require the gamma test, which establishes an atomic fingerprint for radiation and makes it possible to locate its source, Speed said. He said the test is complicated, and cannot be expressed by a single number.

However, Speed said that if the company did report an irregular test, the state would investigate.

Elsewhere in the state, Speed said that natural uranium boosts well level radiation higher than that found in wells outside the Santa Susana Lab, he said.

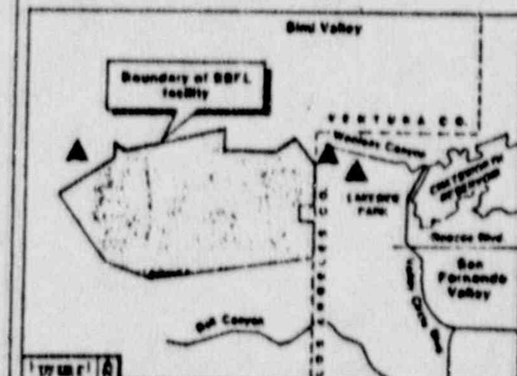
The state Regional Water Quality Control Board ordered the company last week to begin testing wells within a mile of the site for radiation after radiation contamination in the soil at the nuclear facilities was disclosed.

The board in 1985 ordered the company to begin testing wells within a mile of the laboratory, and the company reported results for toxic solvents on 16 wells and springs since that time, said Hank Yacoub, supervising engineer for the water quality board. They did not report the tests for radiation, he said.

Yacoub said he asked for and received the 1988 results for radiation testing of the wells on Friday. He said none of the readings was alarming, but noted that several were above the state safety standards.

CONTAMINATED WELLS

Radiation levels at three wells within a mile of Rockwell's Santa Susana Field Laboratory exceeded the state safe standard for community drinking water. Company officials have said there is no on- or off-site ground water contamination attributable to the facility.



▲ Contaminated wells
SOURCE: Rockwell International

Daily News 5/24/89

Bell Canyon residents to inspect Rockwell lab

By BETH BARRETT
Daily News Staff Writer

BELL CANYON — Saying they do not trust agencies that are supposed to control radioactive contamination, Bell Canyon property owners formed plans Thursday to open their own investigation of a Rockwell International nuclear and rocket research facility near their homes.

The residents said they plan to make an on-site inspection of the facility that dumps millions of gallons of treated waste water each month into a creek running through 50 back yards in the exclusive gate-guarded community. Company tests and government reports say there is no immediate danger.

"I have concerns whether there is any danger, and whether the publicity will have a bad effect on property values," said Dr. Richard Leff, a resident. "I've lived here six years, and I thought all they did up there was make jet engines."

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Property owners to inspect lab operated by Rockwell

RESIDENTS / From Page 1

The Ventura County community of 500 families abuts the Santa Susana Field Laboratory, operated by the company's Rocketdyne Division, three miles west of Chatsworth.

Residents said their concern was heightened after the Daily News received May 14 that a U.S. Department of Energy environmental survey conducted last May found chemical contamination of ground water and radioactive contamination in the soil at the facility, which at one time was among the largest nuclear reactor testing facilities on the West Coast.

But DOE and company officials said the contamination does not pose an immediate threat to public health, and company tests for radioactivity in Bell Creek have revealed no problems.

"There is no reason to accept the words of any regulatory or operating agency as the gospel," said Bell Canyon Associations President Murray Oldman.

Oldman said the association has been promised a guided tour of the Rocketdyne facility next month by James D. Werner, the former hazardous-waste consultant from Washington who prepared the DOE report, which noted the on-site contamination and said further tests are needed to determine how serious a problem exists.

Rocketdyne officials, who did not attend Thursday's meeting, have agreed to talk to the association next month, and to show slides of the contaminated areas and the company's clean-up effort, Oldman said.

Bell Creek is not a source of drinking water to the community, which purchases water from a Ventura County waterworks district, Oldman said. Tests of the drinking water have shown no contamination, he said.

Ventura County Supervisor Madge Schaefer wrote a letter to the association, and said she has requested additional tests of the drinking water supply. She said the results will be available in about two weeks.

"Although water supplied to Bell Canyon is completely encapsulated, and chances of radiation contamination are minute at best, I have asked the county to test your drinking water just to be sure," Schaefer's letter said.

Rocketdyne has a state permit to discharge up to 160 million gallons a day of treated waste water into Bell Creek, which runs from its Santa Susana Lab facility in the Simi Hills through the community into the Los Angeles River.

Bell Canyon residents said they are concerned about Rocketdyne's dumping of treated waste water, because children play in the creek. Several people said they want the water tested while the dumping is ongoing.

Rocketdyne spokesman Pat Coulter said Rocketdyne dumps only a few million gallons of treated waste water into the creek on a few days each month, with the daily average seldom exceeding more than one million gallons. He said the company's tests show the waste water is within safe state standards for pollutants and radioactivity before its release into Bell Creek.

"We have an in-house policy that we clean the water in compliance with the discharge permit before it hits the ground," Coulter said.

In April when no rain fell, Rocketdyne released 4.4 million gallons of waste water down Bell Creek over five days, Coulter said. During rainy months, the total can be greater, he said.

The discharged waste water comes from several sources, including water used as a cooling agent in tests of components for sodium reactors. There are no radioactive materials associated with the tests, Coulter said.

The discharge permit, issued by the California Regional Water Quality Control Board in 1976, says the wastes consist of excess water from the company's on-site waste water reclamation system and rainfall runoff, "which may pick up pollutants from the facilities."

Rocketdyne tests the waste water in a retention pond before it enters Bell Creek, and at the top of the creek, Coulter said.

DAILY NEWS 5/26/89

Rockwell to dig new test wells

Company vows better contamination checks

By TONY ELLIOTT
Daily News Staff Writer

WOODLAND HILLS — New ground water monitoring wells will be dug to determine whether chemical or radioactive contamination is moving away from Rockwell International Corp.'s Santa Susana field laboratory in the Simi Hills, Richard Schwartz, president of the company's Rocketdyne Division, said today.

In a meeting with Daily News editors and reporters, Schwartz acknowledged that a recent Department of Energy environmental survey of the company's 2,668-acre facility there indicated that hazardous chemical and radioactive contamination in the nuclear research portion of the site

"Any hazardous waste at Santa Susana — and there is some up there — is in a contained area," Schwartz said. "It's not going any place. It's monitored and con-

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Rockwell to add more monitoring wells at nuclear research facility

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trolled, and we've been cleaning it up over a period of time."

Schwartz said the contamination presents no threat to the workers or to the surrounding community, pointing out that he and his family, as well as 11 top Rocketdyne executives, live within 10 miles of the plant.

"I consider it one of my fundamental responsibilities to make sure it's safe for the people who work at Rocketdyne and for any way that we might affect the community," Schwartz said. "The key thing that I extract from the (DOE) report is it says there is nothing unsafe for the people that work there or unsafe for the people of the community."

The February 1989 report, released May 16 by the DOE after Rep. Elton Gallegly, R-Simi Valley, demanded a copy from the Secretary of Energy, identified 10 areas of serious contamination with chemicals or radioactivity.

The report concluded there was no evidence of an imminent health threat, but it said chemical contamination of the ground water on the site was discovered and radioactive ground water contamination could have occurred at three areas.

The DOE report said the more than 100 ground water monitoring wells on the property are poorly placed, for determining whether contamination is spreading from the nuclear research area, and new wells should be dug to make sure contaminants are not migrating to irrigation and drinking water wells outside plant boundaries.

Tests of 16 wells and springs within a one-mile radius of the facility have revealed some radiation levels slightly higher than state standards, but company officials said the radiation is from naturally occurring rocks. The tests revealed no chemical contamination.

"We don't feel that there's any problems associated with the ground water," Schwartz said. "But to be complete, we will put those (monitoring) wells in. They will be in, and we'll be sampling those wells by the end of this year."

Richard Nolan, assistant to the manager of DOE's San Francisco office, said the company has responded quickly to the environmental problems.

"The purpose of the survey was to try to identify as best we can the extent of any particular environmental health issues up there," said Nolan, who also attended the meeting at the Daily News. "I think that the survey report pretty accurately reflects the situation.

"DOE is pleased with Rockwell's response. Those highest priority findings were taken care of in a matter of days. The remaining findings of less significance, over half of them have already been taken care of."

Responding to criticism from state toxics and water quality officials that they were not kept fully informed of the environmental problems at the site, Schwartz said an agency representative would meet next Friday to discuss the situation.

One of Gallegly's representatives will be at the meeting, Schwartz said.

"We're virtually sure that there's nothing that one agency does that would affect the other, but we want to go through it item to item," Schwartz said.

He said company officials plan to attend community meetings and invite community leaders to the Santa Susana site in the weeks after next Friday's meeting in an effort to keep the public better informed of activities at the facility.

"We probably need to concentrate on that more and more in the future to make sure people know what's going on," Schwartz said.

"Maybe one of the things that this has pointed out is that we're not doing enough of it, and we'll have to do more."

Schwartz said the company has spent more than $70 million on environmental problems over the years. He said many of the current problems stem from past practices that were permitted 20 or 30 years ago, but are not allowed now.

"What has happened over a long period of time is that the country and ourselves have gotten smarter about the environment," he said.

Daily News 5/27/89

EPA, state agency say they had no record of toxic pit

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would extend to the cleanup.

Company officials said that they have dealt primarily with the DOE and relied on the DOE to notify other agencies.

"We think that we have informed those that need to be informed," said Richard Schwartz, president of Rocketdyne. "We feel very confident about that. If somebody thinks he should have been informed, we think we have done it."

Rocketdyne has invited representatives from all relevant regulatory agencies to the Santa Susana site in the Simi Hills between Chatsworth and Simi Valley for a meeting next week.

EPA records show the agency reviewed available information on the Santa Susana site in December 1987 and determined that there were no toxic dumps that needed to be cleaned up under the federal Superfund program.

"As we have more information now, we're going to re-evaluate our role on this site," said Al Zempsky, spokesman for the EPA's Regional IX office in San Francisco.

Jim Marxen, spokesman for the state Toxic Substance Control Division which administers the state Superfund program, said state investigators never heard of the Sodium Burn Pit prior to disclosure of the DOE survey of contamination.

"That pit never came under our regulatory program," said Marxen.

He said investigators visited the site for the first time last Wednesday.

"We have an inspection of the site coming up," Marxen said. "What we did know about the burn pit, what we didn't know, and why we weren't informed, is going to have to be resolved."

Marxen said state toxics officials have overseen the cleanup of 10 other toxic pits contaminated with chemicals in the non-nuclear portions of the Santa Susana Field Laboratory.

Richard Nolan, assistant to the manager of the DOE office in San Francisco, said he believes that a May 29, 1987, company report on contamination at the Sodium Burn Pit was sent to the EPA.

He said new legislation might have changed the reporting requirements, but he could not cite that legislation or say when it was adopted.

"They (EPA) were the client to begin with, and they should have gotten the report," Nolan said. "Regardless of what happened and who got what, the bottom line is that the law was changed so that we were not required as a federal agency to go through the (Superfund) process with Santa Susana."

Nolan said the DOE has no regulatory authority over toxic waste cleanup. He said that authority rests with the EPA and the state.

The environmental survey of the Santa Susana site ordered by DOE headquarters in Washington, D.C., and released this month after the Daily News disclosures showed 10 serious contamination problems, including the Sodium Burn Pit, on the 290-acre nuclear research area of the 2,668-acre Rocketdyne facility.

James D. Werner, a member of the survey team, described the burn pit as "probably the worst thing we found at the site."

"What we seem to have here is another failure of a the Department of Energy to cooperate fully with other regulatory agencies," Werner said.

"That's the really fundamental thing that has to be learned here," he said. "The DOE is not a regulatory agency. It's mission is to build nuclear warheads and do other energy research. It's the role of the EPA to do the regulatory work."

Nolan defended DOE's handling of the situation at Santa Susana.

"I think that's unfair criticism," Nolan said. "Our policy is to work with any agency of regulatory interest or responsibility."

The Sodium Burn Pit was used from the early 1960s through 1978 for disposal of chemical waste, including solvents, metals and some radioactive wastes, according to the DOE environmental survey. The area is composed of a pit into which wastes were thrown and two ponds that appear contaminated with chemicals, the report said.

"Unauthorized radioactively contaminated equipment was buried in trenches and scattered on the surface," the report said. "Soils within the burn pit area of the facility are contaminated with chlorinated organics, heavy metals and low levels of radioactivity, principally cesium-137."

The report, based on a two-week investigation conducted in May 1988, said curbs to prevent rain water that falls on the burn pit from running off the site and down to the Simi Valley were deteriorated and would allow the runoff to escape in a storm.

Company officials said they immediately built up the berms to prevent this from happening.

The company recently hired a private environmental consultant to prepare a cleanup plan for the pit, said Stephen Laffam, Rocketdyne's environmental manager.

He said EPA is being kept informed of the project, but Zempsky said the agency has no records about the burn pit.

The EPA was given authority to clean up toxic waste dumps by the 1980 Comprehensive Environmental Response Compensation and Liability Act (CERCLA) that established the federal Superfund.

Rocketdyne's 1987 investigation of the Sodium Burn Pit was reported in a company document titled CERCLA Program Phase II — Site Characterization published May 29, 1987.

Company officials said the report was ordered by the DOE and sent to that agency when it was completed.

The more recent DOE environmental survey said the company's May 1987 report was faulty because trenches dug to obtain soil samples purposely avoided radioactive areas.

Robert Tuttle, Rocketdyne health physics officer, said the company has known that the site was contaminated with radiation since 1978.

"The trenching was done to look for organic chemicals," Tuttle said Friday. "We knew the facility was contaminated, and therefore we didn't do that trenching in order to look for radioactivity."

Zempsky, the EPA spokesman, said agency officials have not been able to locate the company's May 29, 1987, report after an extensive search of agency files.

The EPA hired a private environmental consultant to conduct a preliminary site assessment of the Santa Susana facility in December 1987 to see if any sites at the facility should come under the authority of CERCLA.

That report, conducted seven months after the company's report to the DOE on the Sodium Burn Pit, made no mention of the pit and recommended that the facility not be placed in the CERCLA program.

Agencies unaware of toxic pit

Weren't told of contaminated Rocketdyne dump, say EPA, state health officials

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DAILY NEWS 5/28/89

Bullets fired into canisters of lab waste

By RUTH BARRETT
[illegible]

Officials with the Environmental Protection Agency and local agencies say they were unaware that security guards at Rockwell International's Santa Susana Field Laboratory fired bullets into old and highly flammable canisters before they were discarded.

Richard Schwartz, president of the company's Rocketdyne Division, and other company executives said Friday that the practice is used throughout the aerospace industry and that there is no threat to public safety. They expressed surprise that the regulatory agencies were unaware of the shooting at the Simi Hills facility three miles west of Chatsworth.

"What we do, right or wrong, we have to open some pressure oxidizer cylinders with a bullet, because there is no place in the United States to send them," said Steve Lafflam, manager of Rocketdyne's environmental unit.

"It's not someone on a horse shooting at drums," Lafflam said.

Schwartz said there was are no waste disposal sites in the country that will accept the cylinders, which forced the company to adopt the practice more than 20 years ago.

But Ventura County Deputy Chief Bob Holaway, who oversees the county's fire prevention unit, said he was not aware of the practice and said he would ask for a demonstration.

In a letter to Ventura County officials — which Holaway says he was unaware of — the company

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Officials say they were unaware of shooting at old lab canisters

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ny described some of the chemicals as "unknown." A Rocketdyne spokesman said that the company has a general idea what is inside the unlabeled cylinders based on their size, shape and location on the site.

"If they don't know what's in them, how do they know what will happen?" Holaway said. "I don't know what they're doing, but I'm going to ask. I want to see if there could be a fire hazard."

Officials with the Ventura County Air Pollution Control District said they did not know Rocketdyne employees were shooting canisters on the site.

Karl Krause, manager of the district's engineering section, said that the company notified the agency in March 6 letter that it was opening the canisters with "fast moving projectiles."

"There's nothing illegal about it," Krause said. "It doesn't exactly fit into our books. But, I'd have problems with it if I lived next door."

Arnold Robbins, a compliance officer with the Environmental Protection Agency, said Rocketdyne officials notified the agency it burns chemicals and explosives at the Santa Susana lab, but said the company did not specify gunfire was being used to ignite the canisters in the burn area.

However, the EPA no longer regulates the burn area, Robbins said, because it is no longer a hazardous-waste disposal area.

"They did notify us that they had a burn pit to burn propellants and explosives," Robbins said. "But, we don't regulate it.

A May 1988 Department of Energy report criticized the company for shooting cylinders in a burn pit.

"Although this method may have allowed workers to remain at a safe distance from the containers containing reactive substances when they were opened, it did not facilitate capturing the contents," the DOE report said. "These contents appeared to have included reactive metals and solvents."

The sodium pit was used from the early 1960s through the 1980s for disposal of chemical wastes, including solvents, metals and some radioactive wastes, the report said.

Terry Gibby, manager of the county's Environmental Health Technical Services Section, said pollution from the canisters could be a health concern, but said the risk to nearby residents would be greater if the materials were transported through their neighborhoods.

"Certainly there is a potential for causing something to get into the air," Gibby said. "But it makes more sense to disarm them in a remote area rather than transport them through a populated area."

Ventura County officials also said that they were reluctant to get involved with Rocketdyne because they believed the company's burning methods were beyond their expertise, and were properly monitored by the company's own fire department, which has a station at the 2,600-acre Santa Susana site.

"I don't know what they're doing," Holaway said. "They have their own recognized fire department with a trained fire response unit."

Daily News 5/29/89

Rocketdyne bars key figure in waste study

BETH BARNETT
Daily News Staff Writer

The consultant who prepared the federal government's report that detailed contamination problems at Rockwell International's nuclear research facility near Chatsworth has been barred from a meeting next week the company organized with local officials and regulators to discuss conditions at the lab, officials said Tuesday.

James D. Werner, who now works with the National Re-

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Key figure in lab study barred from meeting

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sources Defense Council in Washington D.C., said that he asked to attend the Monday meeting, but that officials with the company's Rocketdyne Division refused.

Werner drafted the report on Rockwell's Santa Susana Field Laboratory for the Department of Energy in May 1988. The study and company officials said the contamination detailed in the report poses no immediate threat to the environment or public.

"I sent a letter to Steve Laffoon (manager of Rocketdyne's environmental unit), to attend," Werner said in a telephone interview. "He was real direct. He said, 'No. What purpose can you serve?'"

Rocketdyne spokesman Pat Coulter said, "Werner has no status as a representative of a government agency."

The company also has no plans to allow reporters to attend the briefing.

However, some state and local representatives have agreed to meet independently with Werner, who did hazardous-waste evaluations at nine of 35 DOE sites during a three-year environmental assessment program.

Hank Yacoub, a senior engineer with the state Regional Water Quality Control Board, said he has some "tough questions" for Werner in an interview scheduled later this week. Yacoub, who has overseen groundwater monitoring for toxic chemicals at the Rocketdyne facility for several years, said he did not know about the potential for radiation contamination of ground water until May 14 when the Daily News reported the survey results.

"I can't tell whether his presence at the (Monday) meeting would have been beneficial or not," Yacoub said.

Werner said that the National Resources Defense Council will open a branch office in the San Fernando Valley to represent local environmental concerns and to monitor cleanup at the Santa Susana Lab if there is interest and financial support from citizen activists and homeowner groups.

"We've had a swarm of phone calls, so rather than take a passive role we decided to meet face to face with the regulatory agencies who were caught off guard by this, and with individuals and citizen groups," Werner said.

He said that the National Resources Defense Council has established such offices elsewhere in the country, including one in San Francisco where researchers confronted the apple industry about its use of Alar.

Estelle Lit, president of the non-profit United Nations Organization, has invited about 35 local activists and homeowners to hear Werner speak Wednesday night. Werner said Dan W. Reicher, an attorney with the National Resources Defense Council, will accompany him to the meeting.

Werner said that he left his former employer, EG Technology Inc., the DOE subcontractor, because he saw serious problems at the DOE sites, and within the agency itself.

"I don't like to think of myself as a DOE basher," Werner said. "But no private company could get away with this. The DOE portion of Rocketdyne is not working with regulatory agencies on the cleanup."

He added, "If asking people to comply with the law, and asking people to produce technically valid monitoring is being on a crusade, then I plead guilty. DOE has been mistaken as a regulatory agency, and they are not. They are a publicly owned company that makes weapons and does energy research."

Coulter repeated Tuesday the company's statements that it has met its obligations under the law in notifying regulatory agencies.

"We're committed to comply with every rule, regulation and law, and we have done that," Coulter said.

Invited to the meeting Monday at the Santa Susana lab were Rep. Fiona Gallegly, R-Simi Valley; state Sen. Ed Davis, R-Northridge; Assemblywoman Marian La Follette, R-Northridge, and Cathie Wright, R-Simi Valley; Los Angeles Councilwoman Joy Picus; and federal, state and local officials, Coulter said.

Rocketdyne officials have pressured state and local officials — who until this month had virtually no say in environmental monitoring at the nuclear research site — a shared role in future decisions, Coulter said.

"We're going to do as much listening as talking," Coulter said. "We want the agencies to tell us their concerns."

Rocketdyne will halt its drilling 18 new monitoring wells to check for radioactive contamination of ground water until Gallegly, the Regional Water Quality Control Board and other regulators are satisfied about their locations, design and depth, he said. The wells, announced to regulators earlier this month after the contamination was disclosed, will cost the company between $215,000 and $250,000, and are to be drilled by the end of the year, Coulter said.

Yacoub said he already has demanded full participation by the Regional Water Quality Control Board in designing the wells, and said he has concern that at least four areas of contamination on the 290-acre nuclear site be better tested, including a sodium burn pit contaminated with radiation and toxic solvents and metals; a contaminated building where ground water has seeped in; and a leach field that was site of an accident in the 1960s.

"We are going to play a role no matter what the DOE says," Yacoub said.

DAILY NEWS 5/31/89

DWP says tests show Valley well water safe

By TONY KNIGHT
Daily News Staff Writer

New tests of San Fernando Valley wells that provide drinking water show radiation levels are far below safety levels, the Department of Water and Power said Wednesday.

In a report sought by Mayor Tom Bradley, DWP officials said radioactive levels have remained unchanged since 1969, and the city's water supply is "perfectly safe." The city gets 15 percent of its drinking-water supply from the Valley wells.

"Water tests from 1969 to the present show concentrations of radioactive substances in the city's water-supply wells substantially less than drinking-water standards," Norman E. Nichols, DWP general manager, said in the report. "There appear to be

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Valley well water safe, DWP says

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no trends, upward or downward, in the amounts."

Bradley ordered the tests after the Daily News reported May 14 that a U.S. Department of Energy environmental survey found chemical contamination of ground water and radioactive contamination in the soil at Rockwell International's Santa Susana Field Laboratory in the hills west of Chatsworth.

The DOE report outlined three areas where there is potential radioactive contamination of the ground water at the site and said monitoring wells used to locate ground water contamination are poorly placed making it impossible to determine the extent of the problem.

Officials of the DOE and Rocketdyne, the Rockwell division that runs the nuclear research facility, have said the contamination does not pose an immediate threat to public safety.

Runoff water and treated sewage effluent discharges from the Santa Susana facility are allowed to run down Bell Creek and into the Los Angeles River. Company tests for radioactivity in Bell Creek have revealed no problems.

DWP officials said some of the river water percolates into the ground and can be extracted from city wells near Griffith Park. Tests of those wells from 1972 to 1988 show average measurements less then a fifth of the state safety standard, the report said.

Recent tests at drinking-water wells in North Hollywood and at non-potable wells in Reseda yielded similar measurements, said Bruce Kuebler, DWP engineer in charge of water quality.

The DWP report said it is possible but highly unlikely that radioactive and chemical contamination at the Rockwell site could migrate into the Valley's ground water system.

If contaminants could find their way through fractures in the bedrock beneath the Rockwell site and reach the San Fernando Valley, it would take 100 years for them to travel to the closest city drinking-water wells in North Hollywood, the DWP report said.

The state Regional Water Quality Control Board has been testing a network of monitoring wells at the Santa Susana site since 1985 to determine whether ground water is moving off the site.

Senior Engineer Hank Yacoub said there is no evidence so far that it is migrating to the San Fernando or Simi valleys. He said water that leaves the site comes from several springs.

DWP tested some of the city's wells in January, March and April of this year, and will continue to test all of the wells on a quarterly basis until April 1990.

A round of testing all the city's wells was to have been completed in 1988, but the tests fell behind schedule. They have been tested at least every four years, Kuebler said.

Rockwell to discuss lab with public agencies

By MARK BARABAK
Daily News Washington Bureau

Rockwell International is arranging to meet next week with regulatory agencies, elected officials and community leaders to discuss oversight of its Santa Susana Field Laboratory, a spokesman said Wednesday.

The purpose of the meeting is "to get us all talking" about operations, environmental problems and regulatory control over the 42-year-old nuclear research facility, Rockwell spokesman Pat Coulter said. It is tentatively set for June 2.

"If we can get all those people in the same room at the same time on that day," he added.

"There will be no subjects that are not going to be laid on the table for discussion," Coulter said. "We're going to sit across the table, everybody, and come to an agreement on all the essentials that we have to talk about."

The meeting is by invitation and will "probably" be closed to the press, Coulter said.

"I think to have a member of the media there would inhibit discussion, although that doesn't mean we can't talk about it afterward," he said.

Rockwell has been buffeted by questions about the Santa Susana facility since May 14, when the Daily News reported that a Department of Energy survey last year found evidence of toxic and radioactive contamination there.

Company officials and the DOE said there is no immediate danger to public safety and no evidence that contamination has moved away from the site, nestled in the hills between Simi Valley and Chatsworth.

But the DOE survey criticized environmental monitoring at the facility, and urged further study to determine the nature and full extent of contamination.

Following the report's disclosure, regional water quality officials complained they were never told about radioactivity at the Santa Susana site, operated under DOE contract by Rockwell's Rocketdyne division.

Other regulatory officials, including the Environmental Protection Agency, said they were not aware of either the nature or extent of contamination there.

People who live near the site in the San Fernando and Simi valleys expressed fear of exposure to hazardous waste, and elected officials — including Rep. Elton Gallegly, R-Simi Valley, and Assemblywoman Cathie Wright, R-Simi Valley — urged Rocketdyne to fully disclose operations and contamination at the facility.

The company has invited representatives from several state, local and regional agencies, including the DOE, EPA, state Department of Health Services, and the regional air and water quality control boards.

Daily News 6/1/89

Activist groups demanding more Rockwell disclosures

By TONY KNIGHT
Daily News Staff Writer

NORTHRIDGE — Representatives of more than 30 homeowner and environmental groups called Wednesday for more disclosures of potential environmental contamination problems at Rockwell International's Santa Susana Field Laboratory in the Simi Hills.

Related story:

Lawmakers urge Rockwell to open meeting on wastes Pg. 4

Representatives at the meeting said they hoped they could form a political action group to get more information about company activities and contamination problems at the nuclear- and rocket-research facility.

"These people are making billions and billions of dollars," said Melina Miller of the Reseda Homeowners Association. "Don't tell me they don't have the money to do the data and present it to the public. Why can't they be more forthcoming?"

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Dan W. Reicher
Environmental lawyer

Local groups issue call for disclosure of Rocketdyne actions

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It provides us with the feeling that there is a cover-up."

The meeting was called to discuss the findings of a recent Department of Energy environmental survey that found radioactive and chemical contamination near the nuclear research facilities three miles west of Chatsworth.

The report concluded that there was no imminent threat to public health, but that more monitoring and investigation was needed to determine the extent of the problem.

Wednesday's meeting was organized by Estelle Lit, president of the United Nations Association/San Fernando Valley, to stimulate community discussion of chemical and radioactive contamination of the Rockwell site.

"I feel the role of the United Nations Association is to act as a catalyst just to bring people together and to facilitate their knowing who to contact when they want to get together again," Lit said.

The Daily News reported May 14 that a recent Department of Energy environmental survey found 10 areas of serious chemical or radioactive contamination at the 290-acre nuclear research portion of the 2,600-acre Santa Susana Field Laboratory three miles west of Chatsworth.

Representatives at the meeting said the most important thing they had to do was to get more data on what nuclear activities are occurring at the site and whether the public's health is being protected.

"I'm just not prepared to jump in and say 'Plow Rocketdyne under,'" said Jerry Silver, president of Homeowners of Encino. "The question is how can we get more data to decide whether there is a problem."

Company and DOE officials have said they will cooperate fully with regulatory agencies that have jurisdiction over the cleanup and have arranged a meeting with agency representatives for next Monday at the Santa Susana site.

The company also has prepared an action plan in response to the DOE survey outlining how it will go about the cleanup. The plan has been submitted to DOE for review but it has not been released to the public.

Wednesday's meeting was attended by Dan W. Reicher and James D. Werner of the Natural Resources Defense Council. Reicher is a lawyer for the New York-based environmentalist group. Werner is an environmental engineer who co-authored the DOE survey of Santa Susana before taking his current position with the NRDC.

"We're seeing a very serious problem and one that for the most part hasn't seen the light of day," said Reicher.

The NRDC has functioned as a watchdog over the Department of Energy and has filed 14 legal actions against the agency since 1973, Reicher said. He said he and Werner are in Los Angeles to gauge community support for a possible local office and to intervene in the Santa Susana cleanup process.

"The situations where we've been successful in the past have involved us working with the community, state and federal agencies that regulate the DOE," Reicher said in an interview.

"So we're at the very early stage right now of deciding whether a partnership like that makes sense in this situation," he said.

Homeowners associations at the meeting included representatives of the communities of: Granada Hills; Lake View Terrace, Tarzana, Simi Valley, Santa Susana Knolls and Bell Canyon.

Environmental and activist groups there included the Southern California Federation of Scientists, Physicians for Social Responsibility, National Council of Jewish Women, and the League of Conservation Voters.

Lab study got little attention

Key agencies didn't attend DOE meeting

By MARK BARNHILL
and BETH BARRETT
Daily News Staff Writers

Key agencies in charge of toxic-waste cleanup were invited to a meeting last year of specialists preparing an environmental survey of Rockwell International's nuclear research facilities in the Simi Hills but did not send representatives, records showed Thursday.

The April 6, 1988, meeting was called by the U.S. Department of Energy to get local and state participation in the environmental survey, which was conducted a month later at the 2,600-acre Santa Susana Field Laboratory, operated by the company's Rocketdyne Division.

Representatives of the Environmental Protection Agency, the state Regional Water Quality Control Board and the state Health Department's Toxic Substance Control Division were invited to the meeting, according to a letter released by DOE headquarters in Washington, D.C. But none of the three agencies sent a representative to the meeting.

Officials of the agencies have

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Key agencies skipped meeting on lab survey

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claimed that they were unaware of radioactive contamination at the site, which was disclosed in the Daily News on May 14 based on the DOE survey conducted a year ago.

Assemblyman Richard Katz, D-Sepulveda, author of the state's toxic pits cleanup law, criticized the agencies — especially the regional board — for not being aggressive in asking questions about the extent of contamination at the facility in the hills between Simi Valley and Chatsworth, and determining whether they could take an enforcement role.

"Rocketdyne hung out under the Department of Energy shield," Katz said. "The state backed off or ignored it. Now, everyone is looking for cover. It's a bureaucratic response to a major screw-up."

The DOE survey identified at least 10 areas of contamination at the facility and called for more testing, although officials said there was no immediate danger to the public.

More than 30 homeowner and environmental groups in the San Fernando Valley called Wednesday for full disclosure of environmental problems at the Santa Susana site.

Records show that the Ventura County Fire Department sent representatives, but the only state officials to attend the meeting were from the radiological health branch of the state Department of Health.

Bill Watson, the radiological health branch investigator who attended the meeting, said he has known of the worst toxic contamination problems at the site for five years but he decided not to tell the other regulatory agencies.

"Under DOE, Rocketdyne operates on a need-to-know-only basis, because of what they do," Watson said. "There's no reason for (state) toxins to know, or for you to know. A lot of people you think should know, they don't. Why should they? It's just the way it operates."

Richard Nolan, DOE's regional assistant manager in San Francisco, said the agencies involved in toxic-cleanup efforts were asked to attend the meeting last year to raise their concerns about environmental problems at Santa Susana.

"We invited all of them," Nolan said. "You'll have to ask them why they didn't show up."

Officials of the EPA and state agencies invited to the meeting at the facility last year could not explain Thursday why they did not attend.

The DOE survey said the purpose of the meeting was "to explain the purpose and scope of the survey to the various agencies, and to identify any environmental concerns they might have.

"Representatives were asked to express their concerns about SSFL so that these concerns could be reviewed during the survey," the report said. "(Those who did attend) did not identify any existing problems or raise any major environmental concerns about SSFL."

Rocketdyne has scheduled a meeting with representatives of the regulatory agencies on Monday. Community groups and the press will be excluded from the meeting, company officials said, although a series of community meetings on the problems at Santa Susana will begin later next week.

An EPA spokesman in San Francisco said he was unable to say whether the agency had a record of the invitation.

Jim Marsen, spokesman for the state's Toxic Substance Control Division, said the invitation is in the agency's files. He was unable to explain why no one attended. The state toxics division has overseen a $3 million program to clean up 10 toxic pits at part of the Santa Susana site since 1985.

Marsen blamed poor communication between the toxic and radiologic sections for the agency's failure to detect the extent of the contamination. He also said toxic inspectors did not ask questions about the nuclear research areas because contamination there wasn't obvious.

"There are no signs to say what things are, or that say, 'Danger, Radiation,'" Marsen said. "It's gigantic up there. All the buildings look like old buildings. The burn pit looks like a field with grass on it. There's nothing to distinguish it."

This story was reported by Mark Barnhill in Washington, D.C., and Beth Barrett in Thousand Oaks. Daily News staff writer Tony Knight also contributed.

Board demands accounting by Rockwell

By TONY KNIGHT
Daily News Staff Writer

State water quality officials have sent a letter to Rockwell International Corp. demanding a full accounting of environmental problems at the company's nuclear research facilities in the Simi Hills, officials said Thursday.

The 10-point letter from Robert Ghirelli, executive officer of the state Regional Water Quality Control Board, requires the company to respond by June 15 with detailed accounts of the nature and extent of chemical and radiation contamination at the facility three miles west of Chatsworth.

Rocketdyne spokesman Pat Coulter said the regional's boards letter was received by the company Wednesday.

"As has been our practice over the years, we intend to fully reply to the request of this agency," Coulter said.

The Daily News reported May 14 that soil, surface water and ground water contamination was found in a U.S. Department of Energy environmental survey of the 290-acre nuclear research portion of Rockwell's 2,600-acre Santa Susana Field Laboratory, which is operated by the company's Rocketdyne Division. The survey said there was no immediate danger to the public.

Regional board investigators said they were unaware of the problems until the contents of the DOE report, completed in February, was released after its contents were reported in the Daily News.

The investigators also said that for six years, they had supervised a $1.3 million ground water cleanup program of contamination caused by rocket testing for NASA and the Air Force.

Company officials said that they did not try to hide contamination portions at the nuclear research facilities site, known as Area IV, from the regional board. They said they had reported the problems to the DOE and other appropriate agencies.

Since 1983, under orders from the regional board, the company has sunk more than 100 ground water monitoring wells on Areas I, II and III at the site.

Six ground water treatment facilities have been built in those areas to clean toxic solvents out of about 326 million gallons of ground water a year, and the cleanup will continue for decades until all the solvents are removed.

However, the cleanup operation has no effect on the top IV problems found in the DOE environmental survey. Among those problems are:

- Ground water contamination problems at a sodium burn pit where toxic metals and solvents and radioactive contamination were found in the soil.
- Possible ground water contamination with radioactivity at a leach field where nuclear reactor cooling water was routinely dumped in the 1960s.
- Radioactive contamination of ground water seeping into the basement of a building that formerly contained a nuclear reactor, and where radioactive sand and equipment still remain.

Daily News 6/2/89

Rockwell seeking nuclear contracts

Contamination to be explained in closed meeting

MONDAY, JUNE 5, 1989

Rockwell seeks nuclear-processing contracts

ROCKWELL / From Page 1

"The hot lab has not been shut down," Pat Coulter, spokesman for the company's Rocketdyne Division, said. "If the DOE awards us any business, the hot lab would perform the contract. Only the hot lab is seeking contracts (for nuclear work)."

Several days after the Daily News disclosed on May 14 that a Department of Energy survey found radioactive contamination of soil and bedrock at the nuclear test facility, Rocketdyne workers loaded an 18-wheel truck with its remaining inventory of nuclear materials, Coulter said.

He said the cargo had been packaged before the government study listing 10 areas of radiation and toxic-chemical contamination at the lab was disclosed. The study and company officials said the contamination poses no immediate threat to the public.

"There are no nuclear materials left that I'm aware of," Coulter said.

Representatives of more than 30 homeowner and activist groups met last Wednesday night and said their major concern was a lack of information about the Santa Susana facility, particularly the extent of contamination, the amount of radioactive material on the site and Rocketdyne's plans for possible future nuclear work there.

"What's going on at the facility today?" asked Dan Reicher, a lawyer with the Natural Resources Defense Council, a Washington, D.C.-environmental group which is challenging Department of Energy nuclear policies. "I don't think we have enough knowledge of what goes on at this plant day to day to make a judgment as to whether it's dangerous or not."

"That's one of the things we want to investigate, is what is the future role of this facility," said Reicher, whose group has announced it might open a local office because of the controversy over Santa Susana.

Coulter said he could not describe the amount or type of nuclear materials transported last month from the 290-acre nuclear test site, part of the 2,600-acre Santa Susana lab.

However, a DOE official said some of the nuclear material leaving the site was plutonium, which is extremely high in radioactivity. The official said there were problems finding a suitable canister to transport the plutonium because of its high radioactivity.

"It (the plutonium) has been out of the hot cell for quite some time," said Tony Adduci, site manager for the DOE. "I had a hell of a time getting them out. I couldn't get a container."

The containers are safe, and the transportation of the nuclear materials poses no threat to the public, Adduci said.

"You can walk up and kiss the cask if you want to," he said.

The last of 16 reactors at the facility was removed four years ago, but a radioactive vessel used to test a space-based reactor is still there and the Department of Energy survey identified problems with ground water seeping into a contaminated basement where the vessel remains, according to state and company officials.

Adduci refused to disclose the route the trucks took after they left the Santa Susana facility with the containers of plutonium.

"I don't think it should be public knowledge," he said. "I see no reason to let everybody and his brother know where it's going because you've got a lot of weirdos in this world."

The company has decided to retain a nuclear presence at Santa Susana because it provides a highly specialized service to the Department of Energy, Coulter said. The complex to remain open includes 10 buildings associated with processing irradiated fuel elements.

The Rocketdyne hot lab is one of a very few in the United States that does de-cladding of fuel elements, Coulter said.

De-cladding is a process in which irradiated fuel elements are stripped of their metal coating. The recovered fuel is shipped to other facilities for eventual reprocessing.

During full operation, 30 people work in the hot lab, a 5,000-square-foot single-story building, said NRC inspector Buddy Brock. Workers stand behind thick shields and use remote-controlled equipment to process the fuel elements, he said.

Brock said the hot lab has operated safely for years. Rocketdyne has been cited only once for an overexposure to a hot lab worker, he said. The 1982 exposure was to a worker's hand, but Rocketdyne received only a minor citation, because the NRC said the overexposure did not result from a single incident.

The NRC report also noted the company's "comprehensive radiation safety program, the timely reporting, and the immediate corrective action."

Rocketdyne has an on-site radiological contingency plan filed with the NRC to handle emergencies at the site, and a specific plan for the hot lab.

Brock said the worst-case incident would be a rupture in one of the four hot cells inside the hot lab, which could result in leakage of radioactive material. He said such a leak would affect workers, but not the public.

Following hot lab processing, the fuel is stored in an installation called the Radioactive Materials Disposal Facility, a complex of nine buildings and a lined drainage pond, according to the Department of Energy survey completed over a two-week period in May 1988.

The DOE survey team found that a Radioactive Materials Disposal Facility building contained 11 drums of highly radioactive nuclear wastes. Since then, the drums have been removed and shipped out of the facility, Coulter said.

"There are no plans to shut down the RMDF," Coulter said.

Federal officials have refused to disclose how much uranium and plutonium is at Santa Susana when the de-cladding operation was in operation. The NRC li- [illegible] the total quantity of nuclear materials under DOE control at the facility, Cook said.

Department of Energy officials said their uranium and plutonium inventories are classified.

Scott Samuelson, project manager for the DOE's energy division, said the classification of inventories is for "material safeguard reasons."

The DOE referred a federal Freedom of Information request by the Daily News seeking its past nuclear materials inventories at Santa Susana to the NRC, which does not license DOE inventories.

Adduci, the DOE site official, said there are no government activities with nuclear materials at Santa Susana now.

"I'm not trying to hide anything from you," Adduci said. "The amount of nuclear we do up there right now is, I would say zero or none."

[illegible] said the DOE is involved in non-nuclear activities at the facility. He described one project where frost is grown in a small chamber as part of a fusion experiment for Northern California-based Lawrence Livermore National Laboratory. The frost detects fusion by the impact of a pressure wave that measures energy.

"Suffice it to say, we're growing frost," he said.

Coulter said Rocketdyne has just under 300 engineers and support personnel working at the nuclear test site, or Area IV. A total 1,098 people work at Santa Susana Field Laboratory, where the company also tests rocket engines and does other non-nuclear research for the Air Force and the National Aeronautics and Space Administration.

In describing other activities inside Area IV, Coulter said, "There are engineers up there. They work in offices, in maintenance and the (non-nuclear) Sodium Component Test Installation. Some people used to work on the solar dynamic test facility, associated with the space station. There are a lot of safety people."

Area IV also includes the world's largest non-nuclear test center for components used in liquid metal reactors and steam generators, the DOE survey said. Some of the energy generated in that project is used by the Southern California Edison Co., Coulter said.

At one time Area IV was among the largest nuclear reactor test sites on the West Coast.

Contamination to be topic at closed meeting

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Representatives of the U.S. Environmental Protection Agency, the state's Regional Water Quality Control Board and Toxic Substance Control Division have complained that they were not kept informed of chemical and radioactive contamination problems at the site, which is operated by the company's Rocketdyne Division.

The problems were outlined in a Department of Energy environmental survey released last month after the Daily News reported the problems.

"We're going to have each of the agencies come into Rocketdyne, and we'll go through our entire environmental program," said Richard Schwartz, Rocketdyne president. "We want to make sure that everybody understands it."

Representatives of eight other agencies and five elected officials have been invited to the meeting. Company officials said they expect representatives from the offices of Rep. Elton Gallegly, R-Simi Valley, state Sen. Ed Davis, R-Northridge, Assemblywomen Marian La Follette, R-Northridge, Cathie Wright, R-Simi Valley, and Los Angeles Councilwoman Joy Picus.

Rocketdyne officials have barred the press and members of the public from the meeting, which will be held in a conference room at Area IV, the 290-acre nuclear-research facility.

Both Davis and La Follette, as well as members of homeowner and activist groups that organized last week to get more information on the contamination problems, have urged the company to open the meeting to the public.

"Why can't they be more forthcoming," said Melina Miller, president of the Rease-da Property Owners Association.

Company spokesman Pat Coulter said the meeting was being closed because having the media there would "inhibit discussion."

Also barred from the meeting were Dan Reicher and James D. Werner, representatives of the Natural Resources Defense Council, an environmental activist group, that was instrumental in getting the facts of the DOE environmental survey released.

Werner wrote part of the Department of Energy environmental survey while working for an engineering consulting firm before joining NRDC.

"Overall, what I was struck with was the lack of data," Werner said of his two-week survey of the nuclear research facilities conducted in May 1988. "They hadn't even taken step one in identifying the problems up there."

DAILY NEWS 6/5/89

Committee to oversee test-lab cleanup

ROCKWELL / From Page 1

to employees or nearby residents.

"I'm convinced there is no concern for the health and safety of those people on site or off site," Gallegly said.

The meeting was scheduled following the disclosure in the Daily News May 14 of a Department of Energy survey that reported 10 areas at the facility were contaminated by radioactive and toxic chemical materials.

DOE team members, who surveyed the facility in May 1988, and company officials have said the on-site contamination poses no immediate health risk to the public but that further testing was needed to determine the extent of the problem.

More than 30 community groups have called for more information about Santa Susana's operations and approximately two dozen people protested outside the Rocketdyne plant gate Monday. They carried signs saying, "Chernobyl: It Can Happen Here."

"What we want is a full-scale, Watergate-type hearing," said Susan Tamsky, a spokeswoman for a group called Chemically Injured United Coalition. "How come elected officials aren't clamoring to get a hearing?"

Gallegly said Rocketdyne President Richard Schwartz has promised all future meetings, including the proposed committee's meetings, will be public.

Gallegly said the committee also will be allowed to tour the Santa Susana lab.

Protesters gather outside the Santa Susana Field Laboratory Monday.

Richard Nolan, assistant manager of the DOE office in San Francisco, said the details on the composition of the committee and its meeting schedule have not been completed.

Gallegly said there will be an attempt to appoint some individuals with technical knowledge.

"This committee will include technical people," he said. "I might not know how to split the atom, but someone on the committee will."

Gallegly said a member of his office staff will work closely with the DOE, and will monitor Rocketdyne's drilling of 19 additional test wells, estimated to cost the DOE $250,000.

Nolan said the wells were not dug when more than 100 other monitoring wells were put in at Air Force- and National Aeronautics and Space Administration-controlled areas because officials believed there was no spreading of contamination.

However, the DOE survey completed in February said the monitoring for potential radioactive contamination of ground water was inadequate and that new wells were needed.

"We understood the groundwater situation pretty well but not precisely enough to be absolutely comfortable," Nolan said. "That's the reason for the additional wells. It was the survey that really gave it the impetus."

Gallegly wants to discuss future sources of federal funding for the cleanup, which Nolan estimated will cost at least $10 million over a number of years.

Gallegly said other DOE sites with more serious contamination problems may require attention before Santa Susana lab.

"We've got to find out what the magnitude of the problem is here," Gallegly said.

Gallegly said company officials gave him a tour of the site and told him one of 10 contaminated areas listed in the DOE survey and described by a DOE team member as probably the worst at the facility is not hazardous. The survey said the Sodium Burn Pit is contaminated with low levels of radioactivity, toxic chemicals and heavy metals.

Other elected officials emerged from the meeting saying that they expected the company and the DOE to be more open in the future about the contamination problem.

"We've asked that they resolve to be more open," said Ventura County Supervisor Madge Schaefer. "The planning committee will meet on a monthly basis and there will be some civic and community leaders on it. I think you're going to see a much more open organization here."

OSHA cites Rockwell for training practices

By TOM [illegible]
Daily News Staff Writer

THOUSAND OAKS — Rockwell International Corp. has been cited by the federal Occupational Safety and Health Administration for inadequately training employees who work with lasers at its Thousand Oaks facility, officials said Monday.

The citation carries an $810 fine, officials said.

Representatives of the state OSHA office said they also are investigating the Rockwell Science Center for possibly exposing its 400 employees to arsenic, cadmium and mercury through the facility's air system.

"A citation was issued last month against Rockwell for training employees in use of lasers," said Jon Krischevsky, industrial hygiene supervisor for the Los Angeles office of federal OSHA. "The employees were not properly trained in the alignment of lasers, and if such alignment is not done properly, there could be damage to people's eyes."

Rockwell uses lasers in its research, including optical technology and semiconductor work, an official said.

Richard Stephens, a spokesman for California OSHA's office in San Francisco, said state OSHA officials were at Rockwell on May 23 investigating air quality complaints. He said his office is waiting for a final report from the federal agency before proceeding with its investigation.

"The matter for us is still under investigation," Stephens said. "We received a complaint from an employee who took his own air samples from the vents and found these heavy metals. We are waiting for the federal report before we decide whether we will issue any citations."

Rockwell officials said they are correcting the problem concerning inadequate training of the 50 employees who use lasers. They also said they have done their own testing of the center's air and found it to be satisfactory.

Cal Steinberg, director of research operations for Rockwell's Science Center, said that the company failed to properly educate employees who use lasers throughout the research facility.

"We believe the OSHA concern was more procedural concerning the educational process," Steinberg said. "There is no evidence of mishandling of lasers."

Jerry Brown, the environmental engineering specialist for the Rockwell center, said Rockwell's training program for employees was not kept up-to-date, and that is what prompted the OSHA fine.

"The training program slipped under the rug," Brown said. "We had a couple of safety officers who came and left, and the plan wasn't kept up-to-date. In the last few years, for whatever reason, the plan went out-of-date. When the OSHA inspectors showed up, we weren't able to provide them with a plan that met their standards."

Officials said complaints were filed with the federal OSHA office in April. The California OSHA department re-opened for investigative work on May 1.

TUESDAY, JUNE 6, 198[illegible]

Panel to monitor test-lab cleanup

By BETH BARRETT
and TOM KNIGHT
Daily News Staff Writers

Related story:
OSHA cites Rockwell for employee training practices. Page 10

Rockwell International executives and local lawmakers said Monday that they will create a committee of regulators and citizens to monitor cleanup of chemical and radioactive contamination at the Santa Susana nuclear research facility.

The announcement was made after a three-hour, closed-door meeting of approximately two dozen elected officials and public agency representatives at the Santa Susana Field Laboratory, operated by the company's Rocketdyne Division, three miles west of Chatsworth.

Rep. Elton Gallegly, R-Simi Valley, said company officials reassured him the 290-acre Santa Susana lab is not a health risk

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Rockwell Meets With Residents Over Pollution

By TRACEY KAPLAN,
Times Staff Writer

For the first time since reports were released three weeks ago about chemical and radioactive pollution at Rockwell International's Santa Susana Field Laboratory, company officials met Tuesday with a homeowner group in an attempt to quell fears about contamination threatening neighbors.

About 100 residents attended the meeting sponsored by the Sunset Knoll Homeowner Assn., a group of about 400 families who live on the edge of Simi Valley about 1½ miles northeast of the 2,850-acre complex. The meeting was the first in a series to be held with concerned citizens by officials from Rockwell's Rocketdyne division, which operates the lab.

"Rocketdyne is very committed to cleaning up problems caused by Rocketdyne," said Steve Laffoon, environmental manager for the site. "We'll guarantee nothing is moving off-site," he said, offering assurances that no pollution has left the company's property.

"Four thousand Rocketdyne employees live within a 10-mile radius of the lab, including the president and 14 of the vice presidents," said Mel Davis, vice president for human resources and communications. "The people who know what is going on there would not be living there if it were unsafe."

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WELLS: Rockwell Tells Residents Not to Worry

Continued from Page 3

Radioactive and chemical pollution of a portion of the complex in Ventura County three miles west of Chatsworth and two miles southeast of Simi Valley was described in a preliminary report released last month by the U.S. Department of Energy, which has contracted with Rocketdyne for nuclear work.

Between 1947 and 1988, nuclear research was conducted on a 290-acre portion of the site, part of which was leased by the DOE. About 10 nuclear reactors operated here, including the first plant in the United States to provide nuclear-powered energy to consumers.

The DOE report found that while the pollution poses no immediate threat to nearby residents, more environmental tests are necessary to determine the extent of the contamination because of inadequacies in the company's groundwater monitoring system.

Slides Displayed

Rocketdyne officials Tuesday displayed slides showing charts, graphs and documents tracing the history of the firm's activities and cleanup procedures at the site. The one-hour presentation was followed by five company officials replying to questions from the audience, passed to them in writing.

"Is it possible homeowners are in danger?" one person asked.

Davis replied that "homeowners are not in danger—period."

One question concerned a field where radioactive water had leaked in the 1970s. Rocketdyne removed the contaminated soil and covered the area with asphalt and soil eight to 10 feet deep, however the DOE survey said residual radiation remained in the underlying bedrock.

The questioner asked why the firm was selecting a disposal site near where it had not "even cleaned up the mess already up there?"

$97 Million Spent

Rocketdyne officials said the company has spent $17 million so far to clean up the site. "What's gone on up there has nothing to do with the recent jobs," said Hank C. Wiegmann, a vice president.

"If you planted a field of cabbages on that area we cleaned up and ate the cabbages for a year, you'd only have three extra hours of exposure to radioactivity than you'd normally have" in a year, he said.

No nuclear work is now being done at the site, but Rocketdyne officials have said the company plans to bid on contracts with DOE to recycle spent nuclear fuel rods. The lab is now used to test rocket engines for the Navy and Air Force and Space Administration.

The DOE report said that in one area of the Rocketdyne site, known as the sodium burn pit, soil tests revealed levels of radioactive uranium as high as 700 picocuries per gram of soil—about 10 to 20 times higher than normal background radiation for the area.

Laffoon said that adding to the burn pit for a day "would be the equivalent of spending the day in Denver," which gets more [illegible] radiation because of its altitude.

The lab has been on the state Superfund cleanup list for several years because of high levels of trichloroethylene, or TCE, a chemical solvent, in ground water beneath the complex. Rocketdyne has been treating ground water in one part of the property where TCE has been found at levels of up to 11,000 parts per billion, 2,200 times the amount that would be allowed in drinking water.

The lab has a state permit to release treated water used to cool rocket engines into Bell Creek, which runs south into the community of Bell Canyon.

"Every day our waste water is monitored for radioactivity and chemicals. We have never experienced any problems in the water released into Bell Creek," Laffoon said.

Ralph Stalnaker, 71, a retired accountant, said he felt reassured by the presentation. "I never felt there was a critical need to get too excited about what's happening up there," he said.

But Dawn Kowalski, a member of the association's board of directors, said she was still skeptical about the truthfulness of the presentation. "I'd like to see an independent organization tell us about what's going on up there," she said.

Times
6/7/89

SOUTHLAND

6/7/89

BRIEFLY

Mental-health bailout bid

SOUTHLAND

The Los Angeles County Board of Supervisors sent an urgent letter to the governor and the Legislature Tuesday requesting that the county's mental-health programs receive no less than 25 percent of any new funds allocated with the state's surplus money.

A proposal to grant the county just 15 percent of the mental-health budget was called "ridiculous" by Roberto Quiroz, director of the county Mental Health Department.

The letter, signed by all five supervisors, was sent to the state Budget Conference Committee, which is currently deliberating the issue.

The board referred specifically to a $2.5 billion surplus in state money, which includes $200 million targeted for statewide mental-health needs

— Daily News

Negligence suit threatened

Public-interest lawyers, saying a study shows patients at county health fa[illegible] ties are dying needlessly because of imp[illegible] r care, threatened a lawsuit Tuesday to [illegible] k pro-

Nuclear contamination discussed

Simi residents question Rockwell officials about radioactivity at laboratory

By TONY KNIGHT and BETH BARRETT
Daily News Staff Writers

6/7/89

SIMI VALLEY — Santa Susana Knolls residents questioned Rockwell International officials Tuesday about public health issues surrounding toxic and radioactive contamination at the company's Santa Susana Field Laboratory.

In their first meeting with a community group, company officials told members of the Santa Susana Knolls Homeowners Association that no contamination has been detected outside the boundaries of the Rocketdyne Division facility.

"There has never been any off-site release of radiation and there has never been radioactive contamination that has been detected out in the community from a Rocketdyne operation," said Stephen Lafflam, the company's environmental manager.

In a 45-minute slide presentation to about 70 residents of the nearby community, the Rockwell officials detailed problems of chemical contamination of the ground-water and radioactive contamination of the soil.

Residents were assured by the company that there is no threat to public health and that hazardous materials being taken to and from the test lab do not travel on Black Canyon Road through the Knolls community.

Some residents said the company's presentation eased their fears. Others remained concerned.

"I'd like somebody other than the company to be telling me that — like a neutral party," said Dave Kowalski, a homeowners association board member. "I feel we've got to look into it a little bit more thoroughly."

The Rockwell slide presentation was identical to the one presented Monday to representatives of regulatory agencies and elected officials in a conference at the Santa Susana Rocketdyne site three miles west of Chatsworth.

Company officials answered questions for more than an hour about their plans for the toxic waste cleanup, their handling of hazardous materials, and the history of nuclear operations at the site.

Earlier in the day, Ventura County Supervisor Madge L. Schaefer criticized disclosure of the contamination at 10 areas of the nuclear test site in the hills between Chatsworth and Simi Valley, saying it should have been delayed until the federal government completed its final report.

"It didn't change anything (to disclose the report early)," Schaefer said. "It panicked a lot of people."

But Murray Oldman, president of the 500-family Bell Canyon Association, said residents needed the information as early as possible. A Department of Energy survey team evaluated the facility in May 1988 and drafted their report in February.

"If they knew a year earlier, we should have been told," Oldman said.

"The residents have been in complete ignorance of what is going on at Rocketdyne for the past 40 years," he said. "If we could go back 30 years and could have known what Rocketdyne was doing then, Bell Canyon might never have been subdivided and no one would live here. I think the information has been dealt with mostly calmly. The only way we came to an understanding is through the press. Without it, we would still be in ignorance."

The Daily News reported May 14 that the DOE survey team found problems with toxic chemicals and radioactivity at the company's 2,600-acre field laboratory. The report found 10 areas of chemical or radioactive contamination in the 290-acre nuclear research area of the field laboratory, which is known as Area IV and is controlled by the DOE.

Area IV, the nuclear research area, lies on the north-western edge of the company site, overlooking Simi Valley. Homes in the Santa Susana Knolls are among the closest to this side of the plant.

DAILY NEWS 6/7/89

EPA criticized for nuclear lab cleanup role

By [illegible] GARDELL
Daily News Washington Bureau

WASHINGTON — Rep. Elton Gallegly, R-Simi Valley, criticized the Environmental Protection Agency on Thursday as insensitive to "the human needs of our communities" after agency officials refused to join efforts to clean up contamination at the Santa Susana Field Laboratory.

In a letter to EPA Regional Administrator Daniel W. McGovern, Gallegly asked for a meeting as soon as possible to attempt to clarify the agency's role in overseeing cleanup of the Rockwell International nuclear research facility in the hills between Chatsworth and Simi Valley.

"I am very much concerned that EPA, under this new administration, shows sensitivity to the human needs of our communities," Gallegly said in a letter.

Related story:
Bell Canyon-Rockwell meeting held in private — Pg. 16

Gallegly had asked McGovern, administrator for the EPA's Pacific region, earlier this week to explain why the EPA did not attend a meeting Monday at Santa Susana of officials from Rockwell, the Department of Energy, and state and local regulatory agencies as well as lawmakers and community groups.

The EPA was invited to the meeting but did not attend, and Gallegly demanded to know why the agency was not [illegible]

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Gallegly hits EPA on test-lab cleanup

NUCLEAR / From Page 1

In a three-page response, which Gallegly's staff released Thursday, McGovern said the responsibility belonged to state and local agencies.

"EPA does not believe any federal intervention is warranted at this time," McGovern said.

"In accordance with ... EPA's practice of not using its resources to duplicate state regulatory activities, EPA will not involve itself in regulatory matters at the Rocketdyne-Rockwell facility except to monitor the state's progress," he said.

Gallegly was unhappy with that response, his chief aide said late Thursday.

"The congressman is clearly concerned that EPA is not being sensitive to the community's needs," said Mike Sedell, administrative assistant to the Simi Valley Republican.

"That's why he's asked to meet with them again, to clarify what role they should be playing." Sedell said. "(Gallegly) is unhappy with EPA's sensitivity to the legitimate concerns of the community."

EPA is one of several federal, state and local agencies with jurisdiction over Rockwell International's Santa Susana Field Laboratory, nestled in the hills between Simi Valley and Chatsworth.

A Department of Energy survey conducted last year found chemical and radioactive contamination within a 290-acre portion of the site used for nuclear research over the past four decades.

Since the Daily News reported details of the environmental survey May 14, there has been confusion over which regulatory agency is responsible for cleanup of the facility, operated by Rockwell's Rocketdyne Division under contract with the Department of Energy.

In his letter to Gallegly, McGovern said the state Department of Health Services is overseeing cleanup of hazardous wastes at the facility. Regional water officials are regulating ground water cleanup and Ventura County officials are regulating airborne contamination.

"EPA will remain in contact with DHS to monitor its progress," he said. "If DHS requests EPA involvement or if EPA determines that DHS is not sufficiently addressing environmental problems at the Rockwell-Rocketdyne facility, EPA will become directly involved."

In responding to McGovern, Gallegly expressed "serious reservations" about trying to explain to local officials why EPA is not taking an active role at Santa Susana.

"They have received contradictory responses from EPA in the past about their roles and responsibilities," he said.

Gallegly's letter also stated that "the very crux of the meeting ... that your agency did not attend (was to set up) roles and responsibilities of the many agencies at the federal, state and local levels."

Officials were aware "earlier on other attempts to voluntarily agree as to exactly what roles should be played by local, state and federal governments," Gallegly said.

Bell Canyon-Rockwell meeting held in private

By TONY HICKEY
Daily News Staff Writer

BELL CANYON — The Bell Canyon Association board of directors abruptly closed a Thursday night meeting at which Rockwell International officials gave a presentation on toxic and radioactive contamination problems at the company's Santa Susana Field Laboratory.

Association office manager Carol Henderson said the directors decided to close the meeting Thursday and that reporters would not be allowed into the gated Ventura County community, a mile east of West Hills.

"I'm going to leave your name at the guard gate that you are not to be allowed to enter," Henderson told a Daily News reporter. She said other reporters would be barred as well.

The policy was a reversal of the association's position on Wednesday when association president Murray Oldmixon said the meeting would be open.

Reached at home Thursday evening, Oldmixon said he did not understand the board's sudden change of mind.

"The majority of the board (members) changed their minds overnight and I can't explain it," he said. "I have to apologize. I haven't had a chance to talk to a soul."

Pat Coulter, spokesman for the Rocketdyne Division of Rockwell, which operates the Santa Susana facility, said the company was not involved in the association's decision to close the meeting.

"I had absolutely nothing to do with it," Coulter said. "We are merely their guests. How they run their meetings and who they allow into their meetings are their business."

Reporters were allowed to cover a May 25 meeting of the homeowners association at which residents discussed contamination problems at the Santa Susana facility.

A recent U.S. Department of Energy environmental survey of the 290-acre nuclear research portion of the field laboratory found 10 areas of radioactive and chemical contamination.

The report said there is no evidence of an imminent threat to public health, but that more investigation was needed to determine the extent of the contamination.

Bell Canyon residents have expressed concerns about waste water releases from Rocketdyne's sewage treatment facility. The releases are allowed to flow down Bell Creek, along the back yards of about 50 Bell Canyon homes.

Rocketdyne has a state permit to release up to 160 million gallons of waste water a day down the creek, but its releases average only a few million gallons a month, said Coulter.

Coulter said waste water is treated to the point where it can be released into an open creek bed, and it is tested for chemicals and radioactivity before being released.

The DOE survey report said that the holding ponds where the water is collected before it is released into Bell Creek are equipped with radioactive monitoring devices that would sound an alarm if radioactivity was detected in the water.

EPA decides to play active role in contamination probe

EPA / From Page 1

In a letter Thursday to Gallegly, McGovern said the state Department of Health Services was investigating allegations the company's Rocketdyne Division is improperly handling hazardous wastes at the facility in the hills between Simi Valley and Chatsworth.

On Friday, state officials said there was no investigation.

"It was a mistake. Our impression was that they were (investigating)," Jeff Zelikson, director of EPA's Region 9 hazardous waste division, said in a phone interview from San Francisco.

"We'll discuss whether an investigation is needed," Zelikson said. "If there's a smoking gun, we'll look at it."

McGovern could not be reached for comment Friday.

Zelikson said an EPA staff member got the "wrong impression" from state officials and drafted a letter for McGovern's signature that incorrectly concluded an investigation was under way.

Zelikson said the EPA has scheduled meetings with Gallegly and state agencies next week to discuss the Santa Susana lab.

McGovern's letter was a reply to one from Gallegly, who demanded an explanation for the EPA's absence from last Monday's closed meeting with company executives and public officials at the Santa Susana facility.

"There is a little breakdown in trust," Gallegly said. "Whenever someone causes you to doubt the way they handled things in the past, that causes you to lose trust. The events of the last few days cause you to dig a little deeper, to ask tougher questions."

State health department officials said they could not explain how the EPA made the mistake.

"There is just not an official investigation," said Jim Marxen, spokesman for the department's Toxic Substance Control Division in Los Angeles.

Marxen said the state will conduct a routine annual inspection of 16 buildings and ponds at the 2,600-acre facility later this month. The sites are regulated by the state and operate under federal Resource Conservation and Recovery Act permits, he said.

"It is a normal inspection," he said. "It was not prompted by allegations of improper handling of hazardous wastes."

Zelikson said the meetings next week with Gallegly and state officials will focus on the relationship between the EPA and other agencies, and whether the EPA should become involved in monitoring or cleanup of the facility.

The EPA has not been involved with the Santa Susana lab, but has relied on state agencies to monitor toxic chemical and radioactive contamination at the site, Zelikson said.

Officials of the EPA and the state's toxic division have said they did not know about a hazardous waste dump at the Santa Susana facility until the Daily News reported May 14 on the findings of a Department of Energy survey.

The study described the contaminated pit and other areas where toxic chemicals or radioactivity was in the soil, bedrock or ground water. Cleanup of toxic dump sites normally would come under the EPA or the state agency.

The Department of Energy survey and company officials have said the contamination is not an immediate threat to public health.

"We have not been involved in the past, but we'll get involved in the future so the public is reassured that the EPA and Health Services have the right relationship," Zelikson said. "If there was a communication problem in the past, we'll fix it in the future. We'll do what we need to."

Zelikson said EPA officials also will look at a possible loophole in monitoring air emissions from the Santa Susana lab.

The EPA has relied on the Ventura County Air Pollution Control District to write permits that regulate airborne release of contaminants at the facility, but the county does not monitor for radiation. Rocketdyne monitors air emissions, and company officials have said there are no harmful releases.

"With radioactivity, national security can become an issue," Zelikson said. "Radioactivity can escape regulatory authority. We will see if there is a loophole, and see if we can close it."

Dennis Dickerson, chief of the state toxics division in Los Angeles, said the DOE survey and tours of the site May 24 and last Monday convinced him the public's health is protected.

However, he said, there are questions whether Rocketdyne has met all requirements in areas that the state oversees.

"I wouldn't say they have complied per se," Dickerson said.

Rocketdyne officials have said they comply with all regulations and agency reporting requirements.

Marxen said 10 toxic pits were supposed to be closed at the Santa Susana lab by January, with the final reports on the closures due in March. None of the closure reports has been filed, and one toxic pit has not been closed, he said.

Dickerson said inspectors also will look at a burn area, because of the company's practice of incinerating canisters filled with highly flammable materials by firing bullets into them. In a letter from a company official to Ventura County earlier this year, bullets were described as "fast moving projectiles."

The burn area has a permit, but state regulators did not know the practice was being used to open the containers, Marxen said. Company officials have said the method is safe, and that there is no threat to the public.

EPA reverses position, enters Rockwell contamination probe

By BETH BARRETT
Daily News Staff Writer

U.S. Environmental Protection Agency officials reversed themselves Friday and said they will look into toxic and radioactive contamination at Rockwell International's Santa Susana Field Laboratory.

EPA officials made the announcement after admitting regional EPA administrator Daniel W. McGovern misinformed Rep. Elton Gallegly, R-Simi Valley, about a state investigation of hazardous materials at the nuclear research and rocket testing facility.

"I'm going to ask him point-blank why he'd sign something like that," Gallegly said Friday night. "It's over his signature, so he is responsible for the text."

See EPA / Pg. 10

Toxic chemical discharges at Colorado plant described

By DAVID JOHNSTON
New York Times News Service

WASHINGTON — Employees at the Rocky Flats nuclear weapons plant in Colorado twice discharged toxic chemicals into two creeks leading to drinking water supplies in the Denver area last November, according to a Justice Department affidavit made public on Friday.

The affidavit listed many other allegations of likely criminal violations of environmental laws from 1980 through December 1988. And it said the Energy Department, which owns the plant, and the Rockwell International Co., which runs it, had repeatedly tried to hinder state and federal officials from enforcing air and water pollution laws.

The Energy Department said in a statement on Friday that it would not comment on the allegations before further study of the charges. The agency said that its representatives at the plant, 18 miles northwest of Denver, "have not found any

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Affidavit cites discharges at nuclear weapons plant

TOXIC / From Page 1

condition or situation which threatens the health or safety of the public or plant employees." Calls by a reporter to Rockwell at Rocky Flats were not answered.

In a news conference in Denver on Friday, Colorado Gov. Roy Romer said that state officials were investigating but had so far not detected any drinking water contamination as a result of discharges from the plant.

"It is an inexcusable act to put pollution in drinking water," said the governor, a Democrat. But in response to demands to close the plant, he said he would take no action until the charges in the affidavit were verified or disproved. "I won't shut down the plant on allegations," he said.

Quoting from a July 1986 Energy Department memorandum, the affidavit said that Rockwell and Energy Department officials sought to keep the public from knowing "just how bad the site really is." The affidavit added: "There is probable cause to believe that Rockwell and Energy Department officials have knowingly and falsely stated Rocky Flats' compliance with environmental laws and regulations and concealed Rocky Flats' 'serious contamination.'"

The Justice Department document, filed in an application for a warrant, granted on Tuesday, for a search of the plant, said the Federal Bureau of Investigation conducted surveillance flights over the plant last December, using infrared cameras and observation devices.

The discovery that plant employees had discharged chemical waste into creeks leading to local water supplies came last November, after investigators placed monitoring devices on property near Rocky Flats. The analysis of the samples drawn from the creeks showed that the contamination was probably "medical waste originating from a research laboratory or pharmacy" at Rocky Flats, the affidavit said.

Three nighttime flights over an incinerator, which plant officials said had been shut down for safety reasons, showed that it "was probably being operated on each of these nights," said the affidavit, which was signed by Jon S. Lipsky, an FBI agent.

In another instance, infrared photography determined that one evaporation pond showed evidence of thermal activity, a sign that it was being used to dispose of liquid hazardous waste, less than 10 days after the Environmental Protection Agency refused to allow use of the pond for that purpose.

NUCLEAR RESEARCH AT ROCKWELL

Rockwell cleanup process called long and costly

NUCLEAR / From Page 1

health threat, but identified 10 areas of potential contamination at the field lab three miles west of Chatsworth.

In the ensuing year, the company said, it investigated and found no contamination in three of the areas, and promptly cleaned up four minor problems.

The three most expensive environmental projects at Santa Susana include:

■ Cleanup of the one-acre Sodium Burn Pit where toxic chemicals and metals, and radioactivity have been detected. Company officials said this job will cost $7 million to $10 million.

■ Cleanup of chemical ground water contamination at Building 59, which once housed a nuclear reactor, and the decontamination and decommissioning of the interior of the building. Company officials estimated this would cost $4 million.

■ Investigation of an unauthorized spill of radioactive water into a sewage leach field to see if radiation has spread to the ground water. The company has pledged to spend $250,000 in the next few months to dig monitoring wells to determine if there is a contamination problem in the ground water downhill of the leach field and at other locations around the nuclear facilities.

"It's going to be expensive and technically difficult," said James D. Werner, one of the authors of the DOE report. "What needs to be done, long term, is for them to do a full technical characterization of the facilities, working closely with the regulatory officials and having an open-door policy along with public scrutiny by any outside people that need to take a look and make sure that it's fully investigated."

Company and DOE officials pledged last week to form a committee of representatives from regulatory agencies and members of the community that will meet regularly to discuss the work.

DOE officials said they would release an action plan in August for the remainder of the Santa Susana cleanup, along with cleanup programs at 34 other DOE sites nationwide.

Richard Nolan, assistant manager of the DOE office in San Francisco, said there is no guarantee that money for the Santa Susana cleanup will be available quickly.

"This facility must stand alongside many other DOE facilities to compete for funds for environmental restoration and cleanup," Nolan said. "We'll pursue, through the department, the items in the survey report. But we are not the masters of our own destiny in terms of making funds available."

While promising to proceed as quickly as possible with the cleanup, Rocketdyne officials moved last week to assure area residents that there is no public health threat from the contamination, and to explain the nature of each contamination problem and how it would be cleaned up.

In meetings with the Santa Susana Knolls Homeowners Association in Simi Valley and the Bell Canyon Association, residential areas closest to the 2,600-acre mountain facility, their primary message was that there is nothing for the public or company workers to worry about.

"Santa Susana is safe for the employees and it is safe for the neighbors and the residents," said Mel Davis, the company's vice president of human resources and communications.

However, the DOE report, while concluding that there is no evidence of an imminent public health threat, pointed out several areas where contaminents could have migrated off company property or where ground water at the site could have become contaminated with radioactivity.

Among the findings in the DOE survey:

■ Deteriorated berms around the Sodium Burn Pit could allow rain runoff to cross the pit and leave the company boundary in the direction of Simi Valley.

■ Company monitoring was insufficient to ensure that the runoff was free of contamination.

■ Unauthorized radioactive waste was disposed of in the pit.

■ Company officials could not explain how radioactive water was mistakenly released to a leach field and did not dig monitoring wells to determine whether the ground water had been contaminated.

■ Monitoring was insufficient around Building 59 to ensure that radioactivity had not seeped through the floor of the basement and into the ground water.

■ Ground water movement from the site could extend to Simi Valley, but monitoring was insufficient to determine whether this was happening.

Last week, for the first time since the environmental survey was released, company and DOE officials talked openly and in detail about the environmental problems, predicting that their cleanup will cost up to $15 million and take years.

Although they have agreed to dig 18 new ground water monitoring wells in response to the survey, company officials said they are positive from the work they have done over the years that there are no radioactive contaminants in the ground water and that contaminants are not moving off the site.

They said contamination problems are localized on company property and closely monitored so that they do not present a problem to workers or neighbors. And they disputed some of the findings of the report.

For instance, the report indicated that the breaches in the berms around the Sodium Burn Pit had remained unrepaired from 1980 until they were discovered in May 1988.

Repairing the berms around the burn pit was one of the first things that the company had to do after the survey. According to the survey, the berms were "breached" in 1980 during a partial cleanup of the site.

"Since this runoff is not routinely monitored as part of any ongoing SSFL/Area IV surface water monitoring program, undetected release of contaminants may be occurring," the report said.

Lafflam said the report's assertion that contamination could have been washed away from the burn pit and down the hill leading to Simi Valley is just a guess.

"This is another, 'What if, what if,' question that they ask," he said. "We have gone down when we have had (rain) runoff, and we have sampled. All discharges detected no radiation or chemicals in runoff."

He said the berms were not deteriorated completely but had to be built up at some of the low points and always were high enough to capture some rain runoff.

Both Lafflam and Nolan said they did not believe that "unauthorized" radioactive materials were disposed of in the burn pit.

"It was an understood practice and it was permitted at the time," Nolan said. "I don't know what the unauthorized is referring to."

There's no real good explanation of how the radioactivity got there," Lafflam said.

Company officials said they have known of radioactive contamination in the burn pit since 1978 and have been waiting for DOE funding to clean it up.

"The reasons that it hasn't been cleaned up is that the disposal of radioactive wastes is an extremely expensive operation," Nolan said. "That, combined with the fact that there is absolutely no hazard to workers or the surrounding community, given the fact that it is so low level, has caused it not to be cleaned up to date."

Officials said disposing of industrial wastes in open pits was a typical practice in the 1960s and early 1970s. After laws were passed prohibiting this practice, the company developed a hazardous materials disposal facility to meet state and federal standards.

Company officials admitted that the leach field contamination, which occurred in the 1960s, was a mistake. Waste water lines from the nuclear facilities were routed to a gravel pit, called a leach field, where the water was discharged and allowed to percolate into the ground.

Only uncontaminated water was to be released to the leach field, said Lafflam.

"In the old days there was sometimes clean water generated that they wanted to dispose of to the sanitary landfill (leach field)," he said. "There was also potential of having low level radioactive water. They could actually have it go either way depending on whether it was radioactive or non-radioactive.

"You run the risk of having somebody turn the valve the wrong way at the wrong time. After that occurred one time, they removed all that plumbing and that valve after the accidental release."

Company and DOE reports on the contamination indicate that the amount and exact time of the release is not known, but the early to mid-'60s is the suspect period.

The situation wasn't discovered until 1978 when radiation contamination was discovered in plants growing on the site. By then the company had built a small sewage treatment facility, and the leach field was no longer in use.

During a three-year cleanup that concluded in 1981, the entire leach field was dug up and carted off to a nuclear waste dump, and six to 10 feet of bedrock was removed by jackhammer.

But low levels of contamination remained in cracks in the rocks, and an asphalt seal was put over it to prevent water from seeping in from above. The area was covered over.

The DOE survey said monitoring wells should have been dug to determine whether the radioactivity that went into the cracks will come out down below in canyons leading to Simi Valley.

"There is a high probability that contaminants reached the ground water through infiltration from the leach field," the report says.

The company has monitored springs and wells at the bottom of the hill since 1985 and never detected any radioactivity, said Lafflam.

"There's no probability that it's reached the ground water," Lafflam said. "There is no evidence that it's reached the ground water."

The company has agreed to sink the monitoring wells needed to determine whether radioactivity has penetrated through the bedrock cracks into the underlying strata, which contains ground water.

Environmental problems began at Building 59 in 1983 when ground water began seeping into the basement and mixing with radioactive sand that had been used as radiation shielding.

The building was used for development of a space-based reactor, and contained a large vessel used to create a vacuum to simulate the conditions of space. The reactor was removed years ago, but the vacuum vessel, sand, piping and the walls of the building have become radioactive because of exposure to the nuclear reaction.

Upon discovery of the ground water intrusion, engineers immediately began pumping the water in the building, maintaining lower pressure inside the structure than the ground water pressure outside.

This way water could come in but not out. The water pumped out had to be treated as radioactive waste, packaged and sent to a nuclear dump.

"Although sampling in 1983 did not reveal radioactive contaminants outside the building, it is probable that the sampling program was not rigorous enough to ascertain if contamination existed directly below the building," the DOE survey said.

Lafflam disputed this conclusion.

"We felt it was adequate," he said. "There were people looking at it daily. It was stable. It was stable in our minds, and it was stable in the DOE's mind."

The company also installed a drain system around the building to collect ground water and pump it away. Toxic chemicals were found in this water in 1986.

The DOE began working to solve the problem in 1988. A $1 million project to remove all the sand and piping from the basement was begun and completed last February, Lafflam said.

Water has stopped seeping into the basement, and now the source of contamination, the sand and piping, is gone. He said there is still radiation in the vacuum vessel and in the walls of the building, but that can't be picked up by intruding water.

The DOE expects to spend an additional $4 million over three years to remove the rest of the radioactivity, Lafflam said.

The company has plans to begin piping the chemically contaminated ground water to a treatment facility located on another portion of the site later this year, he said.

The DOE report concluded that ground water at the site could be contaminated by any one of those three problems, and that it could be moving off the site in the direction of Simi Valley.

"There is no formal ground water monitoring program on the DOE . . . land or SSFL," the report stated. "The monitoring wells installed in Area IV, although some are near suspected sources of contamination, are not sufficient in number or location to provide enough data to fully characterize site or facility hydrogeologic conditions, the extent of known contamination or the presence of suspected contamination."

Although company officials dispute this, they have agreed to dig 18 more monitoring wells.

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Rockwell cleanup called long, costly process

by Tony Kindelán
Daily News Staff Writer

CANOGA PARK — The toxic cleanup facing Rockwell International and U.S. Department of Energy officials at the company's Santa Susana Field Laboratory in the Simi Hills involves the most difficult contamination problems left from 40 years of nuclear research, company officials say.

The facility's 290-acre nuclear research area, perched on a ridge line overlooking Simi Valley, has housed 16 nuclear reactors since 1949. But with the decline of the nuclear industry, facility operations had wound down to a crawl by the late 1970s, and a massive decontamination and cleanup program was started 13 years ago.

"You've done the bulk of the work, and now you've got just the final cleanup left," said Lafflam, noting that the DOE has paid for the cleanup. "They've put $35 million into decontamination and decommissioning of radioactive facilities."

The DOE survey, based on a May 1988 investigation by a private consulting team, concluded there was no imminent public

See NUCLEAR / Pg 9

Firm scrutinized for handling of Colorado nuclear complex

By MARK BARABAK
Daily News Washington Bureau

WASHINGTON — Congress and the Justice Department are looking hard at whether the close relationship between Rockwell International and the U.S. Department of Energy in operating a Colorado nuclear facility has allowed environmental concerns to be sacrificed.

The examination is centered on allegations that Rockwell and the DOE ignored environmental regulations and covered up contamination at the Rocky

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Company facing other problems

FACILITY / From Page 1

Flats nuclear weapons complex near Denver, where plutonium triggers for nuclear warheads are manufactured under a shroud of secrecy.

Rep. David E. Skaggs, D-Colo., one of several members of Congress who have proposed tough new laws dealing with nuclear facility operations, said last week's disclosure of a criminal investigation at Rocky Flats underscores concern about Rockwell's management of the facility.

"I have some very serious questions about how forthcoming officials at Rockwell and the Department of Energy have been, and whether the Department of Energy can be trusted to police itself," said Skaggs, whose congressional district includes Rocky Flats.

"The problem is a conflict of interest within the Energy Department," Skaggs said. "The DOE now both manufactures nuclear weapons and attempts at the same time to regulate its own operations. That doesn't make sense."

Last week, a team of 75 FBI agents conducted an unprecedented raid at Rocky Flats, seizing computer records and files dating back to November 1980. Agents also seized records from the DOE field office in Albuquerque, N.M.

An FBI affidavit, which was unsealed Friday in Denver, accuses Rockwell of illegally dumping hazardous and radioactive waste in two creeks that lead to drinking water supplies in the Denver area.

The 116-page affidavit also accuses Rockwell and the DOE of concealing contamination from Colorado state health inspectors and the public and resisting efforts to clean up the facility.

"There is probable cause to believe that Rockwell and Energy Department officials have knowingly and falsely stated Rocky Flats' compliance with environmental laws and regulations, and concealed Rocky Flats' 'serious contamination,'" the affidavit states.

A separate investigation of Rocky Flats is being conducted by the Colorado Department of Health, which on Wednesday cited the plant for 25 alleged environmental violations.

Health officials charged that Rockwell and the DOE improperly stored hazardous and radioactive wastes and failed to adequately monitor ground water for contamination at the sprawling nuclear production complex, 16 miles north of Denver.

Both Rockwell and the Energy Department issued statements Friday saying they would not discuss the allegations because they are the subject of a criminal investigation.

"Rockwell International believes the Rocky Flats plant it manages under contract with the Department of Energy has been and continues to be run safely and in compliance with applicable laws and regulations," Rockwell said in a two-sentence statement issued from corporate headquarters in El Segundo.

"The company is cooperating with the investigation begun on Tuesday, and is making available to government investigators the records and other data sought in the investigation," the Rockwell statement concluded.

> *"I have some very serious questions about how forthcoming officials at Rockwell and the Department of Energy have been, and whether the Department of Energy can be trusted to police itself."*
>
> — **Rep. David E. Skaggs, D-Colo.**
> whose congressional district included Rocky Flats

The Energy Department statement said that DOE officials "have not found any condition or situation which threatens the health or safety of the public or plant employees."

Earlier in the week, Energy Secretary James D. Watkins pledged to cooperate with the investigation but did not address the specific charges.

Disclosure of the Justice Department investigation, which has been under way for more than a year, has rekindled interest in Congress for establishing an independent oversight agency to regulate environmental standards at Department of Energy plants nationwide.

At least three bills have been introduced that would take environmental oversight from the Department of Energy and give it to an independent panel.

In addition to its Rocky Flats [illegible] nuclear research facility in Southern California — the Santa Susana Field Laboratory in the hills between Chatsworth and Simi Valley.

The Santa Susana facility, run by Rockwell's Rocketdyne Division, is not involved in weapons production and is not directly connected with Rocky Flats, operated by Rockwell's North American Space Operations Division.

But an environmental survey conducted last year at the Santa Susana facility detected radioactive and toxic contamination in up to 10 areas, and urged further study to determine the extent and nature of the problem.

Rockwell officials and the DOE said there is no evidence that contamination has moved away from the Santa Susana site, and no imminent danger to public health.

But the Energy Department estimated in December that it would cost $55 million and take at least 20 years to clean up contamination at Santa Susana.

The same report estimated that the Rocky Flats cleanup would cost at least $1.96 billion and take up to 30 years to complete, and placed the total cost for cleaning up 45 DOE sites across the country at nearly $100 billion.

The Energy Department is in the process of establishing priorities for environmental cleanup over the next half-decade. The five-year plan is expected to be completed by the end of August, according to DOE officials.

Public concern about environmental contamination within the nuclear weapons complex — and in particular at Rocky Flats — is not new.

Rocky Flats has faced safety and environmental problems almost from the day it opened in 1953 — including a major fire and explosion in 1957. But the problems have escalated in recent years.

Last year, the Energy Department identified it as the most environmentally hazardous site in the nuclear weapons industry, because of chemical contamination in an underground reservoir that threatens nearby city water supplies.

In October, the agency closed Rocky Flats' main plutonium reprocessing facility for safety violations after a warning sign outside the building was accidentally covered up and three DOE inspectors walked in without proper protective clothing. The building was reopened in January.

Late last year, the DOE announced plans to close Rocky Flats in the next 20 years in a consolidation of America's nuclear weapons plants.

Throughout the facility's turbulent history, environmentalists and many Colorado political leaders contended that substantial radioactive [illegible]

But Rockwell officials and the DOE have routinely assured officials that only small amounts of contamination existed, and that there was no threat to nearby residents.

U.S. Attorney General Dick Thornburgh said the new criminal allegations do not include anything that would create an imminent risk to people who live near Rocky Flats.

But disclosure of the federal criminal investigation has forced many public officials to re-evaluate the credibility of both Rockwell and the DOE.

"The violations involved raise some very serious questions in our mind about the overall ability of the Department of Energy and Rockwell to manage the plant," said Tom Looby, assistant director of the Colorado Health Department.

"I'm outraged," said Colorado Gov. Roy Romer, who in the past assured Denver residents that warnings about hazards from Rocky Flats were exaggerated.

"It jars one to the bone to realize that the judgment we made in Colorado may have been made on the basis of misinformation," Romer told reporters at a Denver news conference.

After the affidavit was unsealed Friday, Romer said it would be "an inexcusable act to put pollution in drinking water," but he resisted demands to close Rocky Flats before the allegations are proven.

"I won't shut down the plant on allegations," he said.

According to the FBI affidavit, aerial surveillance on three nights last December showed hazardous wastes being illegally burned at Rocky Flats.

The affidavit also accused plant operators of illegally discharging pollutants into a creek that feeds city water supplies, and of dumping hazardous waste without a proper permit.

It also accuses the company and the DOE of falsely certifying in 1985 that Rocky Flats was in compliance with ground-water monitoring requirements under the 1976 Resource Conservation and Recovery Act.

"In fact, various Rockwell and DOE officials were aware of serious contamination and were informed that the monitoring system was deficient and did not comply with RCRA," the affidavit states.

The document also questions the DOE's [illegible] in May 1987, in awarding Rockwell the bonus, the DOE gave the company high marks for waste handling and health and safety programs at the facility.

But during the same time period, the affidavit states, the DOE was aware that "Rockwell had significant problems controlling radioactive contamination of the plant and that Rockwell provided DOE with erroneous and incomplete reports on environmental, health and safety matters."

Rockwell also has come under strong criticism for its operation of the DOE's Hanford Works nuclear facility in Washington state. There also were allegations that environ[illegible]

In 1986, the Environmental Protection Agency investigated waste handling procedures at the Hanford nuclear reservation, which at the time was operated by Rockwell.

No criminal charges were filed, but Rockwell later lost the Hanford contract, and Westinghouse took over operations of the facility on June 29, 1987.

Other allegations involving Rockwell's management at Hanford were detailed during congressional hearings in 1987 and 1988 by Rep. John Dingell, D-Mich., chairman of the House Energy and Commerce Committee.

Dingell said a "high-level Rockwell manager" at Hanford issued a directive in 1982 threatening to fire any employee who reported safety problems. And in 1985, Dingell said, the company "radiated" Washington Gov. Booth Gardner during a tour of the facility.

"Unknown to him and his party, radiation warning signs were deliberately taken down by Rockwell along his route so that he would not find out that a major contamination accident had occurred," Dingell said.

"Senior Rockwell management officials were found to have been involved, and the Rockwell general manager himself later acknowledged that he had been told of the incident shortly after it occurred but failed to follow up," Dingell said.

Company officials denied Gardner was exposed to any contamination. But in a Jan. 14, 1987, letter to Dingell, then Energy Secretary John S. Herrington conceded it was "possible that the media bus (accompanying Gardner) may have passed by an area of very localized contamination."

DAILY NEWS 6/11/89

Water in wells near nuclear site found safe

Simi Hills samples tested for radiation

By TONY KNIGHT
Daily News Staff Writer

Tests on private wells and a creek bed near Rockwell International's nuclear research facilities in the Simi Hills revealed no problems with radioactivity in the water, Ventura County health officials said Monday.

"These samples, there were four of them, they were tested for gross alpha and gross beta (radiation)," said Diane Eastman, water quality specialist with the county Environmental Health Department.

"All four of them met the standard for gross alpha and gross beta," she said.

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Ventura County tests well water

TESTS / From Page 1

The tests were conducted on well water at two Santa Susana Knolls homes and one creek bed where residents had expressed fears over the proximity to the Santa Susana site. Rockwell's Rocketdyne Division has operated up to 16 nuclear reactors at the site over the past 40 years.

The special one-time testing was arranged last month by the Health Department after a U.S. Department of Energy environmental survey revealed problems with radioactive soil contamination and the potential for ground water contamination at the site, which is about two miles from the Knolls.

The survey found no evidence of an imminent public health threat. A cleanup program is under way.

DAILY NEWS 6/13/89

Daily News 6/15/89

SAN FERNANDO VALLEY

Rockwell tries to assure residents

Woolsey Canyon homeowners express doubts on safety of nuclear site

By CARMEN RASIOS CHANDLER
Daily News Staff Writer

CANOGA PARK — Despite assurances from officials of Rockwell International, some Woolsey Canyon Road mobile home residents expressed doubts Wednesday about the safety of the company's nuclear and rocket research in the Santa Susana Mountains.

Company officials told the residents that non-radioactive toxic materials do travel through their neighborhood, but that the risks are minimal.

"(The facility) is safe for the employees who work there, and it is safe for the residents who live in the area," said Mel Davis, vice president of human resources for Rockwell. He addressed about 45 residents of Mountain View Estates and Summit mobile home parks, which are one-half mile from the Santa Susana Field Laboratory, operated by Rockwell's Rocketdyne Division.

But some residents questioned the company's reassurances.

"History told us the atom bomb was safe," said resident Anita Kay. "I appreciate what you're telling us, but I would be more relieved if somebody not involved with Rocketdyne said it was safe."

Sheila Gottlieb, another resident, said she organized the meeting because residents had concerns about the activities at the Santa Susana lab after reports surfaced of problems with toxic chemicals and radioactivity at the site.

The Daily News reported May 14 that a federal Department of Energy survey team found problems with toxic chemicals and radioactivity at the company's 2,600-acre field laboratory. The DOE concluded there was no immediate threat to public health, but called for further study of the situation.

One big question on residents' minds was how hazardous materials are taken from the facility.

Stephen Laffiam, the company's environmental manager, said non-radioactive hazardous materials were put in specials containers and transported by licensed hazardous-waste haulers down Woolsey Canyon Road, on which both mobile home parks are situated.

The materials are then taken up Valley Circle Boulevard to Topanga Canyon road and shipped east on the Simi Valley Freeway, ultimately winding up at a toxics dump in Texas.

"You have nothing to worry about," Laffiam said. "There has never been an accident (involving hazardous materials) on Woolsey Canyon Road."

"Yet," interjected a member of the audience.

Laffiam said radioactive hazardous waste was stored at the National Aeronautics and Space Administration facility at the site.

Residents also wanted to know if Rocketdyne did detailed nuclear research at the lab, but Bob Tuttles, manager of nuclear safety for the company said the only research going on involves disassembly of nuclear fuel rods at the now shut-down reactor at the site. "There is no danger of them ever exploding," he said.

The DOE survey has called for further tests of potential chemical or radioactive contamination in the 290-acre nuclear research area. This area, known as Area IV, is controlled by the DOE.

Rockwell knew of radiation risks, report indicates

ROCKWELL / From Page 1

Rocketdyne Division declined to discuss the report Tuesday.

Environmental Protection Agency tests released last week found for the first time that low levels of radioactivity traceable to Santa Susana were in the ground water beneath the facility. Officials of the company and the Department of Energy, and federal and state health agencies say there is no imminent health risk to the public.

Richard Nolan, DOE assistant manager in San Francisco, said Tuesday that cleanup work conducted in recent years has reduced the potential health and environmental risks identified in 1983.

The Daily News reported May 14 that a U.S. Department of Energy environmental survey found toxic chemical and radioactive pollution at the lab, which is situated in the hills between Simi Valley and Chatsworth. There is a population of 444,755 within a 10-mile radius of the lab three miles west of Chatsworth, according to the company's 1987 Environmental Monitoring Report.

Federal and state regulators also monitor contamination elsewhere at the 2,600-acre lab and said they were not aware of the extent of radioactive contamination in the 290-acre nuclear test area.

Company and DOE officials repeatedly have said the contamination poses no health risk to the public, and a July survey by the U.S. Environmental Protection Agency confirmed there was no imminent health threat.

Company officials have also said there is no evidence that radioactive contamination has moved outside the lab's boundaries, although Rocketdyne agreed Monday to conduct more extensive testing after the EPA criticized the company's environmental monitoring program.

The 1983 report estimates a variety of potential health and environmental risks at the lab, ranging from "medium" to "possible high" if cleanup at the facility were delayed.

It also determined that additional surveys were necessary to determine the extent of radioactivity and the risks in certain areas.

One area at the site that remains contaminated today, Building 59, was rated as a medium health risk in 1984 and given the top priority for decontamination. The report recommended that Building 59, which housed an experimental reactor in the 1960s, be completely cleaned up by 1989.

The report rated the potential risk of workers being exposed to radiation in Building 59 as seven out of 10, and said levels of radioactive cobalt were so high in the building's reactor vault that workers could not safely enter the building.

The ratings were made by a Rocketdyne panel to evaluate the relative risk on a 10-point scale.

Nolan said health hazards at Building 59 have since been reduced through ongoing cleanup work. The reactor itself was removed from the building's basement nearly two decades ago, and contaminated sand has been hauled out more recently, he said.

"There's not a medium health risk now," Nolan said. "I know some (contaminated) steel and concrete remain. But it is fundamentally cleaned up."

Company officials have estimated the cost of cleaning up Building 59 at $4 million. Until the cleanup is completed, Rocketdyne has been forced to pump out ground water seeping into the contaminated basement.

The 1983 report stated that the chance of contamination spreading from Building 59 to ground water outside the building was high, rating the potential risk at 9 on a scale of 10.

"Recent water intrusion also indicates the need for near-term dismantlement," the report said.

Rocketdyne officials announced last week that the EPA found traces of radioactive hydrogen in ground water at Santa Susana, and attributed it to operations in Building 59.

It was the first evidence that radioactive contamination has traveled into the ground water from nuclear operations at the site.

It also was the first time tests had been run for tritium near Building 59, where the company has battled a problem with ground water leaking into the basement since 1983.

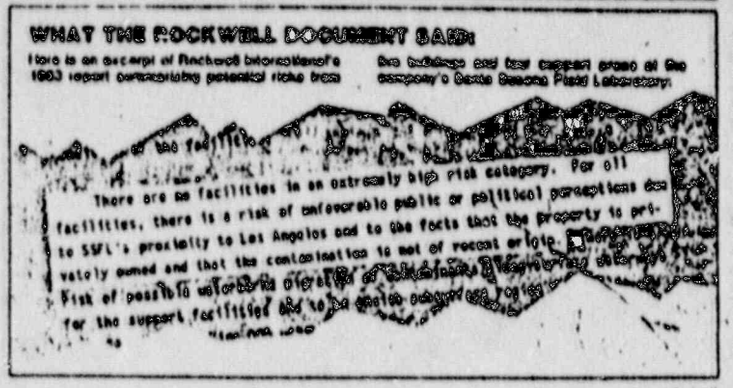
The EPA, which agreed to assume oversight of the Santa Susana cleanup in June at the urging of Rep. Elton Gallegly, R-Simi Valley, criticized the company in a July 28 report for never testing for tritium, a radioactive form of hydrogen, in soil or water. The isotope moves rapidly through the environment, and is a good indicator of whether radioactive contamination is spreading, the EPA said.

Company officials said the company never tested for tritium because the quantities used at the lab were small and not considered a threat to the environment, including the ground water.

The 1983 decommissioning plan also considered that contamination could spread off the site through waterways. In particular, the risk assessment listed the potential for off-site contamination from "surplus facilities support" as seven on the scale of 10.

The surplus facilities support areas included a sodium burn pit, storage yards, drainage areas, and old sanitary sewage systems.

Nolan said the DOE has found no evidence there is potential for off site migration of radioactive materials.



Public disclosure was concern for company officials, study says

DISCLOSE / From Page 1

to workers and the nearby communities, as well as other factors — including political repercussions of public disclosure of the problem.

"There is a risk of unfavorable public or political perceptions due to SSFL's proximity to Los Angeles, and to the facts that the property is privately owned and that the contamination is not of recent origin," the study concluded.

The study recommended a timetable for dismantling most of the facilities by 1989, declaring that "unfavorable perceptions and risks (would be) greatly reduced by following the dismantlement option."

Of the nine contaminated "surplus facilities" that were assessed in the report, only one had been completely decontaminated and released for unrestricted use as of three months ago.

Rocketdyne officials, who released a copy of the report Tuesday morning in response to Daily News requests, would not comment.

The company is preparing for a meeting Friday with a multi-agency task force, formed in June to study the extent and nature of contamination at Santa Susana, and to determine responsibility for cleaning it up, company spokesman Paul Sewell said.

"We're working hard . . . to arrive at a mutually agreeable plan to verify the safety of the facility and areas that surround Santa Susana," Sewell said. "We believe the task force will provide the best assurance about the facility."

Larry Peterson, a senior engineer with the California Department of Health Services, on Tuesday questioned the company's examination of political risks from public disclosure of contamination.

"A risk assessment is supposed to address the threat to humans and the environment," Peterson said. "Humans are supposed to come first.

"(Examining) the risk of political exposure makes it look like it's not a risk assessment at all, but rather problems they are likely to encounter," he said.

> *"We're working hard . . . to arrive at a mutually agreeable plan to verify the safety of the facility and areas that surround Santa Susana."*
>
> — Paul Sewell
> Rocketdyne spokesman

Richard Nolan, assistant manager of the Department of Energy's San Francisco regional office, which oversees Rocketdyne's nuclear operations, also said the examination of political risks was unusual.

"I'm not aware of a risk analysis that includes that as part of its process," Nolan said. "Obviously, it was a creature of what was felt necessary to do six years ago."

Rocketdyne and DOE officials have been under intense pressure the last four months to fully disclose the extent and nature of contamination at the facility.

The Daily News reported May 14 that a DOE environmental survey last year found chemical contamination of soil and ground water and radioactive soil contamination at the 290-acre nuclear research portion of the 2,600-acre field laboratory.

The survey said there was no evidence of an immediate health threat, but said further investigation was needed to determine the extent of contamination.

In the intervening four months, Rocketdyne officials have consistently maintained that they fully reported the extent of contamination to regulatory officials.

But the company agreed Monday to undertake a series of new steps to monitor radioactivity, after an EPA report said Rocketdyne's environmental monitoring program is flawed and unable to fully characterize the contamination or guarantee it will not spread off-site.

The 1983 report shows that Rocketdyne officials were aware of radioactive contamination at a dozen areas at Santa Susana, and were concerned that it might spread both within the laboratory and outside its boundaries.

The plan assessed a dozen "surplus facilities" that were no longer in use but remained contaminated by radioactivity. Each posed some degree of health or safety risk, the study determined, but "no facilities (were) in an extremely high-risk category."

The report rated each potential risk on a scale of 0 to 10, with 0 signifying negligible risk and 10 the most serious risk.

"Meeting health and safety requirements is the item of highest priority . . . (and) health and safety requirements are being met," the report stated.

Still, the report concluded, there would be potential safety risks during the facility until the contamination was cleaned.

Each contaminated area was rated in 17 different risk categories, including safety, worker radiation exposure, potential for spreading both within and outside the lab, and risk from earthquake or torrential rains.

Also rated was the potential for "public and political concerns" — which was among the highest-rated risk factors in the assessment.

For example, the potential for public and political concern rated an 8 out of 10 at areas that included a dump site known as the sodium burn pit.

The risk of political repercussions rated a 7 out of 10 at Building 59, where Rocketdyne conducted research on sperm-based nuclear reactors in the 1960s. Another contaminated building was rated at 5 out of 10, two others at 4 and another at 3.

In other categories, Building 59 rated among the highest for potential risks. The building rated a 9 out of 10 for potential on-site spread of contamination through the ground water, and a 6 for potential off-site ground water spread.

Building 59 was rated a 7 for potential radiation exposure to workers at the lab; a 7 for potential problems if an earthquake or torrential rains should strike; and a 5 for the structure's ability to provide long-term confinement for radioactivity.

"The categories, of course, vary in importance in relation to one another," the report noted. "These are not weighted, so the sum of index numbers for a (particular area) has no quantitative or absolute significance."

Rockwell to vie for reactor contract

Firm is 1 of 3 chosen to submit designs

By MARK BARABAK
Daily News Washington Bureau

WASHINGTON — The Department of Energy has chosen Rockwell International of Canoga Park and two other contractors to design orbiting nuclear reactors that could power hardware for the Strategic Defense Initiative space shield.

If Rockwell produces the best design, the company could ultimately be chosen to build the new reactors at its Santa Susana Field Laboratory near Chatsworth, company and government officials said.

"That's what we hope would happen, that we win the contract for the next phase," said Paul Sewell, a spokesman for the company's Rocketdyne Division.

"But first we have to come up with the best conceptual design," Sewell said.

During the five-year design phase, Rockwell will be paid $15 million and will compete with two other companies — Westinghouse Electric Corp. of Pennsylvania and Grumman Corp. of New York.

Each contractor must produce an in-depth proposal for building a space reactor, but that work will not entail the construction of an actual reactor or the use of nuclear materials, government officials said.

When the design phase is completed, in the mid-1990s, one of the contractors will be chosen to build the nuclear reactors. Rockwell hopes to win the contract and build the reactors at the Santa Susana Field Lab, Sewell said.

The sprawling 2,600-acre facility, tucked in the hills between Simi Valley and Chatsworth, includes a 290-acre nuclear research center where Rockwell has operated at least 16 reactors over the past 40 years.

The company's nuclear program has been winding down over the past decade, leaving a legacy of environmental contamination that government officials say will take two decades and at least $55 million to clean up.

A Department of Energy environmental survey, conducted more than a year ago but first disclosed by the Daily News in May, found radioactive and chemical contamination in soil at the site.

The study found that there was no immediate danger to the public, but recommended further study to determine the nature and extent of contamination.

Since details of the study were revealed, local, state and federal regulators have formed a task force to examine the facility and to determine how best to clean it up.

At least part of the contamination stems from 19 earlier attempts by Rockwell to build space-based nuclear reactors.

Building 59 at the Santa Susana Field Lab, used in the 1960s for space-reactor research, is contaminated by radiation from a spent reactor vessel that remains in the building's basement.

DAILY NEWS 7/18/89

Drilling begins on Rockwell's monitor wells

By TONY KNIGHT
Daily News Staff Writer

7.19.89

Drilling began Tuesday on the first of 17 new monitoring wells that will be sunk to determine the extent of radioactive and chemical contamination at Rockwell International's nuclear research facility in the Simi Hills.

The $250,000 drilling operation is being completed by the company's Rocketdyne Division in response to a Department of Energy environmental survey that identified problems with contamination in the soil and ground water at the 290-acre nuclear portion of the 2,600-acre Santa Susana Field Laboratory.

"All the wells will do (at two-fold (job)," said Stephen Laffham, the company's environmental manager. "They'll give you direction of (ground-water) flow and water quality."

The DOE survey identified 10 areas of actual or potential soil and ground-water contamination, concluding that there was no evidence of an imminent public-health threat, but recommending additional monitoring wells to determine whether the pollution was moving from the

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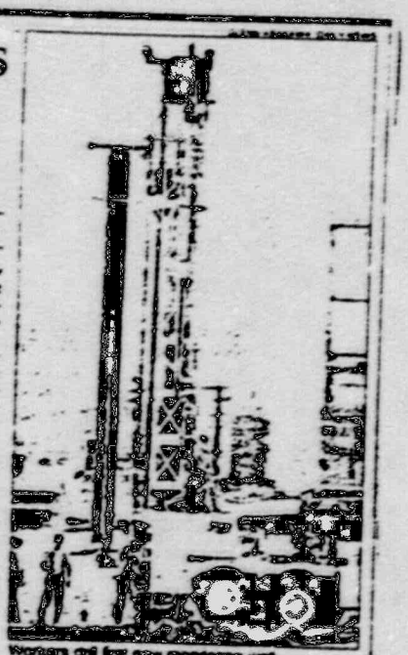

Workers drill first new monitoring well.

Drilling begins on monitor wells

WELLS From Page 1

Rocketdyne site.

After the DOE survey was disclosed May 14 in the Daily News, the U.S. Environmental Protection Agency took over the lead in the Santa Susana cleanup, and is preparing a strategy plan that will be released June 31.

Meanwhile, the state Department of Health Services and the Regional Water Quality Control Board have conducted inspections of the nuclear facilities, known as the Energy Technology Engineering Center, and are preparing plans to complete a thorough environmental investigation.

Florence Pearson, senior specialist with the health department's Toxic Substance Control Division, said the company was given the go-ahead to drill the 17 wells. Additional wells could be ordered later, she said.

"We did let them know that this is not the end of what we will require them to do," Pearson said.

The new wells are being dug to gather data about ground-water conditions on the western portion of the field laboratory that overlooks Simi Valley.

Specifically, they are designed to monitor ground-water flow under the Sodium Burn Pit, where chemical and radioactive contamination has been found in the soil, the Radioactive Materials Disposal Facility, where radioactive contamination has been found in the soil, and Building 59, where chemical contamination has been found in the ground water.

"It's going to take us to eight weeks to drill the wells," Laffham said.

DailyNews 7/19/89

ENTERPRISE 7/23/85

Enterprise

Nuclear space reactor won't be tested at Santa Susana

7/23

A Rocketdyne spokesman said there is no chance a nuclear space reactor will be tested at Rocketdyne's Santa Susana Field Laboratory.

Paul Sewell, a company spokesman, said the company will not test the reactor that will be designed at the company's Canoga Park facility.

Rocketdyne, along with two other companies, was awarded a $15 million contract by the U.S. Department of Energy to design the reactor, which will orbit the Earth.

At the end of the five-year design period, one of the three companies will be awarded a final contract to build the reactor.

Sewell said some components of the reactor might be tested at the field lab, but the nuclear reactor will be tested elsewhere.

He did not say where the other testing locations might be.

EPA blueprint set

Contaminated wells reported near Field Lab

By Anthony Aarons

Five surprises are expected in the long-awaited Environmental Protection Agency's regulatory blueprint of Rocketdyne's sprawling Santa Susana Field Laboratory.

But some controversy could be caused in the 30- to 40-page report due to be released on Monday by the possible discovery of one new area of contamination at the research lab.

The EPA's coordinator of the spill force compiling the blueprint, Rich Vaille, would not identify what or where the contamination was. But he was adamant that the contamination was minor and did not pose a threat to human health.

"There may be one area of contamination that we didn't know about," said Vaille, the EPA's southern region's assistant director for waste programming. "In my mind it is not substantial."

(Please see EPA, Page 18)

EPA

(Cont. from Page 1)

Rocketdyne's environmental manager at Santa Susana said the contamination could be related to two off-site wells that the company regularly monitors.

Low levels of the chemical toluene, a component of gasoline, have been found in two wells at private homes between one-half mile and three-quarters of a mile from the lab in Woolsey Canyon, said Steve Laffoon, Rocketdyne's environmental manager.

He said the water, despite the contamination, was still 12 times cleaner than state standards for drinking water.

And Laffoon said the contamination was caused by gasoline powered generators which pumped drinking water from the wells to the homeowners.

The company is now working on methods to determine what contamination in the wells is caused by the generators, and what pollution, if any, is coming down from the lab.

"We think we have found a way to do that now," Laffoon said.

The method entails exposing a clean vial of water to fumes from the generator and comparing the vial to samples from the well.

The EPA organized the task force made up of about 10 regulatory agencies in early July in response to continued public concerns about possible chemical and radioactive contaminants in soil and groundwater samples at the lab in the hills between the Simi and San Fernando valleys.

In May the U.S. Department of Energy released a 200-page plan report detailing the possible contamination.

According to officials at federal, state and local regulatory agencies with authority at the facility, each agency will maintain its present responsibilities at the site.

The EPA's blueprint will be finished on Monday and released through Rep. Elton Gallegly's, R-Simi Valley, Chatsworth field office.

The month-long effort details regulatory authority for each area of the Rocketdyne lab and also maps out future plans for cleanup, Vaille said.

But, Vaille believes, the most important aspect of the blueprint will be to reassure the public that there is no health threat.

"There is no off-site contamination and no imminent health hazard," Vaille said. "In my mind that is the bottom line."

Officials who participated in the task force meetings led by Vaille had nothing but praise for the EPA and what they believe will be the final product.

"The EPA ran a good process and used the material gathered from the other agencies in a good manner," said Dick Nolan, special assistant to the director for the DOE's Oakland office.

A draft of the blueprint has been finished.

Rocketdyne officials have not even seen draft versions of the document.

Terry Gilday, assistant director of the Ventura County Environmental Health Department, said the blueprint was slowed because of the size of the Rocketdyne lab.

"It has been an extraordinary thing because of the complexity of the site," said Gilday. "In the normal operation of a plant you might have one or two regulatory agencies. They have agencies I haven't heard of up there."

Battalion Chief Jim Smith of the Ventura County Fire Department agreed with Gilday that the blueprint will help manage the sprawling lab.

"There is not anything on that scale in the entire country," said Smith, who supervised fire inspectors attending the EPA meetings. "For a number of years they have been doing tests up there and they are the largest test facility that we have, at least in Ventura County."

Gilday, Smith and Ventura County Air Pollution Control District director Dick Baldwin said their agencies will keep the same jurisdictions they had before the blueprint was drawn up.

"I don't think there have been any great revelations out of what occurred," Gilday said.

The county health department will continue to monitor underground fuel tanks and the disposal of hazardous wastes at Rocketdyne. The fire department will keep a list of all chemicals and materials used by Rocketdyne and the APCD will regulate emissions into the atmosphere.

Vaille said some agencies could have expanded responsibilities but would not elaborate on which agencies were included or what responsibilities would be expanded.

The task forces work is not completed, Vaille said, as it will continue meeting until cleanup measures are initiated and completed at Rocketdyne.

"We're going to make sure there is coordination and a good strategy on the cleanup," he said. "This is a long-term commitment."

Gilday said the main accomplishment of the task force will be to calm worried residents.

The EPA is getting much of the credit for the blueprint after they initially blamed an early June meeting on the contamination at Rocketdyne.

EPA officials reportedly told company spokesmen that the meeting was not high enough on their priority list to attend.

But days later, after several letters from Gallegly, the EPA reversed itself and declared it would take an active role in the monitoring of Rocketdyne.

ENTERPRISE 7/23/89

7/24/89

Critics: DOE lost credibility

Santa Susana probe one of many

By SONY KNIGHT
Daily News Staff Writer

Environmental problems at U.S. Department of Energy sites across the nation, including Rockwell International's nuclear research facility in the Simi Hills, are the result of decades of secrecy, mismanagement and bureaucratic arrogance, congressional critics say.

As the Environmental Protection Agency moved to take over the cleanup program at Rockwell's Santa Susana Field Laboratory three miles west of Chatsworth, the DOE last week admitted that its failure to comply with environmental laws nationwide has left the department open to plant closings and criminal investigations.

Officials say the toxic and radioactive contamination at Santa Susana is minor compared to some other DOE facilities. A DOE study, reported by the Da-

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Congressional critics doubt DOE can clean house

DOE · From Page 1

ly News May 14, said the contamination posed no threat to the public but further study was needed.

Responding to disclosures and mounting criticism of DOE programs, Energy Secretary James D. Watkins has developed a 10-point plan to create a "new culture of accountability" within the department.

But members of Congress said in a series of interviews last week that they don't trust the department to get its own house in order.

"There has been a pattern of at best dissembling and at worst outright deception over the years and the people's mistrust is well founded," said Rep. David E. Skaggs, D-Colo., whose district included the scandal-plagued Rocky Flats nuclear weapons plant operated by Rockwell.

"The first step that they need to take in restoring credibility is to admit that they don't have any," Skaggs said. "The second step is admitting that they have got to concede to an outside authority with honest to goodness (environmental) compliance powers."

Rep. Elton Gallegly, R-Simi Valley, who insisted that the EPA take charge of the cleanup at Santa Susana which is in his district, said that a major problem at the site was that the DOE was policing itself.

Gallegly said the problems at Santa Susana are similar to environmental problems at other DOE sites where the department was operating in a regulatory vacuum and other agencies were unaware of the problems.

"It's a classic case of unchecked bureaucracy," Gallegly said. "These are the types of problems that can occur. It culminated mismanagement and ineptitude."

Although they are moving to oppose legislation that would water down their powers, DOE officials admit the agency's environmental record is dismal.

"The underlying operating philosophy and culture of the DOE was that adequate production of defense nuclear materials and a healthy, safe environment were not compatible objectives," Watkins said in a June 27 statement.

"For over four decades ..., virtually all incentives and awards have been coupled to production, much more so than all other considerations combined," he said. "So, now, ... years of inattention to changing standards and demands regarding the environmental safety and health are vividly exposed to public examination, almost daily."

FBI and EPA officials raided the DOE's plutonium trigger plant at Rocky Flats, Colo., on June 6 to investigate allegations of extensive environmental contamination and of a cover-up.

The FBI acknowledged last week that it has opened a criminal investigation of the DOE's Feed Materials Production Center at Fernald, Ohio, where a major contamination problem exists.

The investigations lent impetus to a lopsided 380-39 vote last week in the House authorizing legislation that would give state and local agencies the power to impose fines and criminal penalties on DOE and defense sites for environmental violations.

"We're going to whittle away at them," said John Arlington, chief counsel for the House Subcommittee on Transportation and Hazardous Materials. "We're faced with the fact that we have a department, the Department of Energy, whose far-flung operations are out of control. This place has been unaccountable to nobody."

Last week congressional critics of the department released an internal report prepared by the DOE's Inspector General that concluded the agency's failure to comply with environmental laws could lead to more criminal investigations and plant closings.

"The DOE has not developed a systematic approach to assure that environmental requirements and violations are promptly identified and addressed," concluded the report by the Inspector General's office.

The report also found these problems:

■ Energy Department managers and key employees have not been adequately trained.

■ Reports on environmental problems and violations were inaccurate and filed late.

■ Federal managers are still reluctant to force companies that operate the plants for the government to comply with federal environmental laws.

The report said that the DOE's environmental survey last year of 16 plant sites, including Santa Susana, did not specify which pollution problems were a violation of law, leaving the department ignorant of whether it was vulnerable to criminal prosecutions.

State and local agencies said they do not believe that there have been any criminal violations at the Santa Susana site, which is operated by the Rockwell's Rocketdyne Division.

But the EPA, state Department of Health Services and Regional Water Quality Control board have launched investigations at Santa Susana in the past month. An EPA report outlining a cleanup strategy and assigning responsibilities to the various agencies is due out July 31.

The Daily News reported May 14 that the DOE survey of the 290-acre nuclear research portion of the 2,600-acre Santa Susana Field Laboratory revealed chemical contamination in the ground water, and chemical and radioactive contamination in the soil.

The report concluded that there was no imminent public health threat, but more investigation was needed to determine the extent of the problem. Subsequent soil samples have revealed radioactive-contamination problems much higher than those originally revealed in the DOE survey.

In May, officials with state and local agencies that have been involved in hazardous chemical cleanups on the NASA and Air Force areas of the Santa Susana site since 1985 said they knew nothing of the nuclear research that has been carried out at the site for 40 years and did not have cleanup programs operational in the nuclear research area.

Richard Nolan, assistant to the manager of the DOE's San Francisco field office, said contamination problems at Santa Susana are minor compared to Rocky Flats and Fernald.

"EPA's been there, the state's been there, the county's been there," Nolan said.

"Each of them has had an opportunity to get up to speed on what the environmental issues are, and the conclusions are that we do not have a health problem," he said. "But we have a contamination problem that needs to be cleaned up and so some cases needs to be better understood in terms of how much there is and the nature of what it is."

Last week, Rocketdyne began a project to drill 17 new ground water monitoring wells to determine the extent of radioactive and chemicals contamination at the site, and to find out the extent of ground water contamination.

"We're not absolutely certain that we know what the extent of the contamination is," Nolan said. "There's still no evidence at this point that we have a health hazard or that any of the contamination is off-site or headed off-site."

Should any of the pending congressional legislation to step up the DOE pass, it is unclear what the impact would be on Santa Susana. Skaggs has introduced legislation to beef up the powers of the Defense Nuclear Facilities Safety Board, which was created last year with oversight powers.

But that board would have jurisdiction over nuclear weapons plants only. Santa Susana has been involved in non-weapons research.

The legislation passed last week by the House would give state environmental regulators the power to launch their own criminal investigations.

DOE officials in Washington, D.C., said the legislation would hamper Watkins' efforts to clean house internally.

"It basically results in more delays because it circumvents DOE's ability to set (cleanup) priorities," said department spokeswoman Mary Kay Hazzie. "If they're going to impose restrictions and money, it prevents DOE from using that money for cleanup."

Hazzie said Watkins 10-point plan released June 27 will take care of the problems.

Among the points in the plan are that it would:

■ Require that environmental concerns take precedence over production quotas.

■ Establish incentives for environmental compliance by DOE contractors.

■ Establish "Tiger Teams" of DOE inspectors to conduct environmental compliance assessments.

■ Form a new management team to deal with environmental problems.

■ Allocate an additional $300 million to DOE cleanup programs.

■ Authorize formation of a comprehensive data base on nuclear worker exposure.

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Los Angeles Times
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Old Nuclear Dump Off Coast Is a Relic of Era of Naivete in Toxic Disposal

By MYRON LEVIN, Times Staff Writer

In the black depths of the ocean near the Channel Islands lies a largely forgotten memento of the early nuclear age. It is low-level radioactive waste generated at Rockwell International's Santa Susana Field Laboratory and Canoga Park plants.

For about a decade starting in the early 1950s, Atomics International, later part of Rockwell, dumped hundreds of drums of radioactive waste in 6,000 feet of water south of Santa Cruz Island.

Today, precise information on the dump is hard to come by. Old U.S. government reports estimate that the dump received about 3,100 drums of waste containing 108 curies of radioactivity—apparently not a great concentration considering the diluting power of the sea.

But it is not known if these numbers are accurate, or if all the dumping was recorded. Neither is it certain whether other government contractors disposed of waste at the site. Except for a limited survey in 1980, there has been no environmental monitoring of the Santa Cruz site by Rockwell or government agencies.

No Specific Studies

"As far as we know, there have been no specific studies directed at that particular site to find out exactly what has been dumped there," said Diane Green, a park naturalist with Channel Islands National Park.

"The Park Service . . . does have concerns for that site as well as any other toxic dumping site," she said.

Larger radioactive dumps used during the same years have been studied, specifically those near the Farallon Islands off San Francisco and in the Atlantic Ocean. Although elevated radioactivity was found in bottom sediment near these dumps, no significant levels were found in samples of fish. Most researchers have concluded that too little radioactive material was dumped off the U.S. coasts during the '40s, '50s and '60s to create a human health hazard.

The dumping was more of a dangerous precedent than a life-threatening event, said W. Jackson Davis, professor of biology at UC Santa Cruz and a leading critic of ocean disposal.

Other Waste

However, the dump may also be a special case because radioactive waste was not the only thing disposed of near Santa Cruz, the largest island in Channel Islands National Park. When Atomics International began the dumping, the Navy was already using the site to dispose of military waste. In fact, official nautical charts describe the site as a former "chemical munitions dumping area"—saying nothing about radioactive waste.

The radioactive waste dumping, authorized by the old U.S. Atomic Energy Commission, was variously estimated by Rockwell officials to have stopped between 1959 and 1962, when commercial land burial sites became available for low-level wastes generated at the Canoga Park plants and the Santa Susana Field Laboratory west of Chatsworth.

"The ocean is awfully big," and ocean dumping was considered "a perfectly acceptable way to dispose of radioactive waste," said Martin Remley, former chief of nuclear safety and licensing at Rockwell's Rocketdyne division, successor to Atomics International. "I don't know when it was decided that, 'Hey, this is no good.'"

Atomics International dumped low-level material, including liquids, contaminated wipes, gloves, glassware and other equipment. But the refuse included some highly dangerous plutonium, according to a paper delivered by company officials at an AEC symposium in 1958.

Atomics International began the ocean dumping before moving to its plant at 6633 Canoga Ave. at the end of 1955. Previously it disposed of waste from experiments at its plant in Downey, where the firm operated California's first nuclear power reactor, a tiny test model, starting in 1952.

Although radioactive dumping by the United States virtually ended in 1962, it surfaced as a major environmental issue years later, leading to congressional hearings in 1976 and later.

According to information compiled at the time, at least 27 Pacific, Atlantic and Gulf Coast sites were designated for low-level wastes, but the waste dumped near the Farallons and at three Atlantic Coast sites far exceeded the volume at all other sites combined. Virtually all environmental monitoring by the Environmental Protection Agency and other organizations has been done at these larger sites.

Studies have found measurable radioactivity at each

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NUCLEAR: Old Dump a Relic of Bygone Era

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of the sites, but "we didn't find any significant uptake of radioactive materials in any of the fish we sampled," said Bob Dyer, chief of environmental studies for the EPA office of radiation programs in Washington.

Food Chain

Similar conclusions have been reached by contract researchers for the California Department of Health Services, who have gathered fish samples near the Farallon Islands during the last few years.

"That's the key thing you want to know," Dyer said. "You want to know whether it's going up the food chain and getting into man, and there's no evidence of that."

Dyer said that in 1960, an AEC contract research firm did a limited survey of the Santa Cruz dump and found no significant contamination.

According to the paper delivered by Atomics International at the AEC symposium, wastes were put in cylindrical ice cream cartons, which were placed in 55-gallon drums and sealed with concrete to make sure that they would sink to the bottom. About four times a year, the waste drums would be trucked to Long Beach for loading on a Navy barge.

The price could not be beat. "No costs are involved since the dumping ground trip by the U.S. Navy is regularly scheduled for other purposes and ample space is available" on the Navy barge, the paper said.

Paid Overtime

But Atomics International paid overtime to its maintenance workers, several of whom accompanied each voyage. They would ride in the tug until it arrived at the dump, then take a small boat back to the barge to roll the drums over the side. The trip to the dump and back could take more than 24 hours, and the men were paid for every hour at sea.

James Youngblood of Santa Clarita, a retired Rockwell worker who went on two of the dumping trips, said this was a plum assignment and the men took turns because of the extra pay.

"I think they enticed the maintenance workers, the blue-collar workers, with the overtime pay," said Eula Youngblood, his wife.

"We just took it for granted it was a safe thing to do," said Junius Wheeler of Lake View Terrace, a former maintenance supervisor who helped prepare the drums for disposal.

The volumes dumped may have increased after nuclear work shifted from Downey to Canoga Park sites and the Santa Susana lab, which have done extensive work with test reactors and nuclear fuel.

Firm's Records

Company memos, provided by Rockwell in response to questions about the ocean disposal, allude to at least 10 dumping trips in 1958-59, including the disposal in September, 1958, of 226 55-gallon drums along with contaminated boxes, tanks and cowhats.

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VALLEY NEWS

NUCLEAR: Dump a Relic of Times Past

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Sometimes the company hired commercial haulers, but a problem arose with the private firms. Just as the operation involved old ideas of pollution control, so did it run afoul of throwback racial attitudes.

During the overnight trips, private tug crews were reluctant to share their bunks with the Atomics International maintenance men, some of whom were black, according to George Borg, a former health physicist with the company. Borg said a tugboat captain told him, "The guys on board don't want to give up their bunks to anybody who's colored." As a result, he said, Atomics International resumed trips with the Navy.

Another bad experience involved a private contractor hired to dispose of contaminated dirt around Santa Susana's experimental sodium reactor following a 1959 accident that melted part of its nuclear fuel, Borg said.

The contractor, Coastwise Marine Disposal Co. of Long Beach, accumulated more than 1,000 drums of radioactive waste from various generators without dumping it. Eventually the firm, which was cited by the AEC for excessive radioactivity at its Long Beach plant, dumped the wastes, including those from Atomics International, at another Pacific dump site about 215 miles west of San Diego.

This second dump site was used by another San Fernando Valley firm, Isotopes Specialties Co. of Burbank, in 1961, according to a report by the Nuclear Regulatory Commission, successor to the AEC.

The lack of follow-up monitoring of the Santa Cruz dump is not necessarily a problem, said Dan Wemeldorf, chief of environmental management for the state Department of Health Services.

"I suppose the logical answer is that if we look in the areas where the greatest amount of dumping took place and find nothing of potential public health significance there, then one would conclude that the likelihood is much less of having problems where less material was deposited," Wemeldorf said.

Although Dyer also said he is not concerned about the Santa Cruz dump, he added: "If it hasn't been monitored since 1980, it would probably be useful to assure ourselves that there's no significant inventory of radioactive materials present in the site. . . . If the public wanted assurance, then it would be a good idea."

Times 7/31/89

Daily News July 31, 89

EPA doubts Rockwell data

Calls Santa Susana lab monitoring inadequate to assure safety

By TONY KNIGHT
and BETH BARRETT
Daily News Staff Writers

SAN FRANCISCO — Rockwell International's environmental monitoring program at its Santa Susana Field Laboratory is inadequate and unable to guarantee that contamination will not spread into surrounding communities, the U.S. Environmental Protection Agency said in a report released Wednesday.

"Certain problems exist within this laboratory that make me question the validity of some, if not all, of their environmental data," EPA Radiation Specialist Gregg D. Dempsey said in the report released at the EPA's regional headquarters in San Francisco.

"If the environmental program stays uncorrected, SSFL cannot guarantee that unforeseen or undetected problems on site will not impact the off-site environment in the future," Dempsey said.

Dempsey said it was clear that Rocketdyne does not know where radiation has been inadvertently or intentionally dumped on site.

Officials with Rockwell's Rocketdyne Division, which

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WHAT THE EPA SAID:

Here is an excerpt of an Environmental Protection Agency report on Rockwell's environmental monitoring program at the Santa Susana Field Laboratory.

...from ... groups ... that unforseen or undetected problems ... offsite environment in the future.

It is also clear to me that Rocketdyne does not have a good "handle" on where radiation has been inadvertently or intentionally dumped onsite. Most of the evidence on site spills is incompletely documented or anecdotal. DOE or Rocketdyne should conduct a complete survey of the site, specifically looking for other spill areas. A good start and a valuable aid for these surveys would be ... with the EG&G Energy Measurements group in Las Vegas. ... with their gamma radiation counting equipment. ... This survey would ...

EPA challenges Rockwell lab safety

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operates the facility in the hills between Chatsworth and Simi Valley, said the EPA report points out procedures "that EPA feels could be improved," but confirms that the facility poses neither an environmental nor a health threat.

"Our evaluation of all this data gives us assurance that the site and surrounding environment are safe for our employees and our neighboring communities," Rocketdyne vice president L.T. Nagamatsu said in a letter Wednesday to EPA officials.

But company officials said they would hire a radiation expert to overhaul the environmental monitoring program and "ensure that the public is assured there are absolutely no health hazards resulting from our operation of the SSFL."

Rep. Elton Gallegly, R-Simi Valley, said the report raises "serious new concerns" about the facility, and he asked EPA officials Wednesday to direct "all appropriate efforts to analyze and recommend actions needed as a result of this report."

The congressman said the EPA and the Department of Energy should "move immediately" to fully assess the extent of problems at the facility and clean them up.

"I want to know once and for all, from credible experts, whether there are any health hazards up there — and if so to have them remedied immediately," Gallegly said in an interview.

According to the Nuclear Regulatory Commission's current emergency plan, 78,000 people live within five miles of the lab. Within a 10-mile radius, the population is 644,755, according to the company's 1987 Environmental Monitoring Report.

Dempsey's EPA report said Rockwell's 20-year-old environmental monitoring program has serious flaws that prevent officials from knowing the true extent and danger from radioactive and chemical contamination.

The report was completed by Dempsey last month, after an inspection of the site ordered by Gallegly. It was forwarded this week to Gallegly and Rocketdyne officials for comment, and released to reporters Wednesday.

Richard Vaille, EPA's regional toxics assistant director, said the report, based on Dempsey's July 12-13 inspection of the field lab, was preliminary and he would wait for a full response due from the company by Sept. 10, before taking any action.

A company official in a preliminary response Wednesday said Rocketdyne will re-evaluate its testing procedures and hire an outside expert in radiological laboratory techniques to review monitoring procedures.

"Our laboratory procedures will be appropriately modified, if necessary, after we have had the benefit of that review," Nagamatsu said in a letter to EPA officials.

The EPA's Office of Radiation Programs was called in to assess the company's monitoring program after a U.S. Department of Energy environmental audit revealed problems with low-level radioactive contamination at the 290-acre nuclear research portion of the 2,600-acre field lab.

The DOE audit, released last May, said there is no imminent health threat, but more testing is needed to determine the extent of the problem.

The EPA entered the case in June at the urging of Gallegly and has taken over the responsibility of coordinating the cleanup.

Dempsey also reported that he did not find evidence of an imminent public health threat and that his Geiger counter tests showed only low-level contamination.

However, he said he lacked confidence in the accuracy of Rockwell's testing laboratory.

"This laboratory apparently has never had a thorough review or audit by Rocketdyne or DOE," Dempsey said.

Dempsey said the company's water testing was being done improperly because the apparatus used to count beta rays is not accurate enough.

An outside expert will be employed to address the audit issue and ensure calibration standards are complied with, Nagamatsu said.

Dempsey said the company's procedure for testing soil for gross alpha and beta radiation "is not a good method for assessing environmental radioactivity," because the soil is heated as part of the test, turning some radiation to a gas that escapes detection.

Nagamatsu said testing procedures have been developed over a long period of time and will be evaluated according to EPA requirements.

Dempsey also recommended that the company begin testing vegetation and wildlife as the best for signs of radioactive contamination.

Nagamatsu said the company would work with "(EPA) staff to arrive at a mutually acceptable program."

Dempsey recommended that the company complete a thorough radiological audit of the entire site, including monitoring by aircraft.

"Most of the evidence of on-site spills is incompletely documented or anecdotal," Dempsey said.

Nagamatsu said an aerial survey would be conducted in the future.

Daily News staff writer Mark Barnett also contributed to this story.

Daily News 7/31/89

ENTERPRISE 8/1/89

Gallegly pleased with EPA Field Lab report

8/1,89

By Armando Aguirre
The Enterprise staff

Rep. Elton Gallegly, who demanded that the Environmental Protection Agency take responsibility for mastering Rocketdyne's Santa Susana Field Laboratory after reports of radioactive contamination on the site, said today he was pleased with the agency's report on the matter.

The report, released today, was prepared after a request by Gallegly, R-Simi Valley.

Gallegly stressed that there appears to be no cause for alarm over activities and contamination at the site in the hills above Simi Valley, but called on the EPA to take whatever steps necessary to determine the full extent of any problems.

The good news is that they (EPA) confirmed that there was no threat to those people living at and around the area," Gallegly said. The Enterprise today by telephone from Washington, D.C. "It appears we have the attention of the EPA, but we have to stay on top of it."

The EPA report released today by the Department of Energy laboratory operated by Rocketdyne, a division of Rockwell International, states that although there is no threat to public health or safety, there is evidence that two off-site wells near the laboratory may be contaminated, as The Enterprise reported on Saturday.

The report states that low levels of the chemical tolluene, a petroleum based component, have been found in

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Report

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two wells at private homes between one-half and three-quarters of a mile from the lab in Woolsey Canyon.

"We were able to find there were trace amounts of several chemicals at or below the detection level," said Rich Vaille, the EPA's western region's assistant director for waste programming.

Vaille said the results are not conclusive, however, and the report recommends that Rocketdyne continue to retest the water.

"We're not willing to say there isn't contamination. There is a trace of the chemical and we don't know where it came from," he said today.

The results were so minute that even if there is contamination, it is in very trace amounts and does not pose a health hazard, Vaille said.

The contamination was probably caused by gasoline powered generators that pumped drinking water from the wells to the homeowners, said Steve Loiflore, Rocketdyne's environmental manager.

The water, despite contamination, is 12 times cleaner than state standards for drinking water, said Pat Coulter, director of communications for Rocketdyne.

The company is now working on methods to determine what contamination in the wells is caused by the generators, and what pollution, if any, is running down the hills, Coulter said.

The method entails emptying a close vial of water in homes from the generator and comparing the vial to samples from the well.

The U.S. Department of Energy in May released a 300-plus page report detailing possible contamination.

The report released today recommends several short- and long-term actions it expects Rocketdyne officials to take:

- That the Department of Energy install air samplers to measure escaping dust that may be radioactive from the old sodium burn pit.
- We talked this over with DOE the week of July 17 and they were moving to get them installed," Vaille
- That a berm surrounding the burn pit be rebuilt to ensure toxic and wastes are not moving out of the pit.
- That the company collect runoff water for analysis and submit its sampling plans and data to the Los Angeles Regional Water Quality Control Board.

"We'll also like for Rocketdyne to develop a sampling and analysis plan for water runoff. They've already told us they're in the process of doing that now," Vaille said.

Los Angeles Times

VALLEY

San Fernando, Santa Clarita, Conejo, Simi and Antelope Valleys

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EPA Reports No Imminent Hazards at Rockwell Lab

By MYRON LEVIN, *Times Staff Writer*

The federal Environmental Protection Agency, in a report Tuesday to Rep. Elton Gallegly, said its review of environmental data on the Santa Susana Field Laboratory shows that the sprawling test site west of Chatsworth "does not represent an imminent health or environmental hazard."

The formal conclusion, which echoed prior comments by the EPA, was seen as vindication by officials of Rockwell International, the site operator, and the U.S. Department of Energy, which has contracted for work that has resulted in chemical and radioactive contamination.

"No surprises," said Pat Coulter, spokesman for Rockwell's Rocketdyne division, which runs the lab in the Simi Hills in eastern Ventura County.

Dick Nolan, special assistant to the manager of DOE's San Francisco operations office, also said he was not surprised that EPA's "independent look" turned up no evidence of immediate hazards. "That's what we've maintained all along."

Gallegly (R-Simi Valley), who had pressured the EPA to review environmental conditions and regulation of the site, said the agency fortunately had found no cause for alarm. "I think so many people, fearful or otherwise, were concerned about DOE doing the investigating because some felt that perhaps they might have a conflict of interest," Gallegly said.

EPA Takes Own Tests

Yet despite its general conclusion, the 37-page report did not give the 2,668-acre research site a clean bill of health. The report said agency inspectors three weeks ago took their own samples of soil, stream sediments and ground water to verify pollution data compiled over the years by Rockwell, which took virtually all the measurements on which the EPA's report was based. The EPA said results of its own tests will not be available until later this month.

The report also called for better environmental monitoring, citing basic gaps in data for the part of the Santa Susana site devoted to research for DOE.

Among other things, the EPA said it recommended that air samplers be installed in two areas of low soil contamination to test for radioactivity in windblown dust. A Rockwell official said the samplers will soon be hooked up.

The report also noted that Rocketdyne two weeks ago began drilling 18 new wells to improve ground-water testing in the DOE portion of the site.

Delivery of the report coincided with Tuesday's announcement by Energy Secretary James Watkins of a five-year, $13.5-billion plan to start the cleanup of present and former DOE energy research and weapons sites, ranging from such highly contaminated plants as Hanford in Washington state and Rocky Flats in Colorado to less polluted sites such as Santa Susana. Watkins, appointed by President Bush, has been openly critical of past environmental management of DOE sites.

The EPA report gave an overview of regulatory responsibilities and pollution problems throughout Santa Susana—not just in the 290 acres reserved for DOE work.

The DOE area includes a "hot cell" for dismantling nuclear fuel, which involves stripping the metal shielding and packaging pulverized and other radioactive materials for reuse in energy or weapons work at government reservations. No dismantling has been done there since 1988 but the work could resume in the future.

Last Reactor Shut Down

Since the mid-1950s, 10 nuclear reactors, mostly small test plants, have also operated at the site, with the last one shut down in the early '80s. Dismantling and decontamination followed several of these projects. And on a number of occasions—most recently last month, according to the EPA report—pockets of radioactive and contamination have been cleaned up. But areas of contaminated buildings and soil remain.

The report noted that tiny traces of toluene, a chemical in gasoline, were found last year in water samples taken from one off-site well and an off-site

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spring. But it was impossible to say if the chemical had seeped from the lab, according to the report.

"The potential of ground-water chemical contamination to migrate off-site cannot be confirmed with the present available data," the report said. Rocketdyne has repeatedly maintained that there is no evidence of off-site pollution.

The report also said there is no evidence of radioactive soil contamination outside the DOE portion of the complex.

Much of the non-DOE portion of the test lab is devoted to rocket testing for the National Aeronautics and Space Administration, which owns 450 acres of the site.

Over the years, heavy use and poor control of solvents used to raise rocket engines has resulted in the highest levels of ground-water pollution found at the property. According to the EPA report, well tests last year produced one trichloroethylene, or TCE, reading of 49,500 parts per billion, and a peak methylene chloride reading of 33,000 p.p.b. There are no public drinking water supplies in the area.

Rocketdyne is treating about 400,000 gallons per day of polluted ground water in the non-DOE portion of the lab and expects to more than double the treatment capacity soon.

Ground-water problems outside the DOE area had been well-publicized, but a spring DOE report on contamination in the DOE area raised a furor, prompting Gallegly to call for the EPA's involvement.

Although the report suggested pollution at the site was relatively mild, it made it clear that more nuclear work had taken place at the lab than the public knew. Regarding radiation safety, DOE had largely functioned both as customer and regulator under provisions of the Atomic Energy Act. Some state regulators who were working with Rockwell to solve ground-water problems in the NASA area said they never knew the extent of atomic research on the other side of the hill.

In response, Gallegly asked the EPA to chair a task force of health and environmental agencies to assure that all potential problems were addressed.

In its report Tuesday, the EPA said it will continue to chair the task force "to assure coordinated management of this site." The EPA said the interagency group will meet again in September.

Times 8/2/89

Rocketdyne says:

Wells not fouled by company

By Armando Aguirre
The Enterprise Staff

Rocketdyne officials said today they have proof that two water wells near the Santa Susana Field Laboratory determined to have a chemical used for industrial cleaning did not come from their facility.

An Environmental Protection Agency report released Tuesday stated that low levels of the chemical toluene, a petroleum-based compound, were found in the wells of private homes during Rocketdyne's quarterly inspection of the 20 wells in the eastern hills of Simi Valley.

"The toluene came from gas-powered generators used to pump the water. It had nothing to do with Rocketdyne. The people living in these homes put in the generators themselves," said Steve Lafflam, Rocketdyne's environmental man-

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Wells

(Cont. from Page 1)

ager. "We have chlorinated solvents in our cleanup — chlorinated solvents were not found in the water."

The cleaning solvent Rocketdyne uses — 1-1-1 trichlorethane, commonly known as TCA — is believed to cause cancer, inhibit development in children or fetuses or harm adult reproductive systems.

A study by the state Environmental Affairs Agency revealed the Rocketdyne plant is the second in the county when it came to emitting TCA into the air. PTI Technologies, based in Newbury Park, was first.

"It's a common industrial solvent used in vapors. It cleans oil off metal parts. It's the most common solvent used by machinists," Lafflam said.

The maximum level the EPA allows for TCA is 200 parts per billion. Although the EPA study showed small amounts of TCA in the on-site wells, none was found in the wells owned by homeowners or the natural springs in the area, said Pat Coulter, Rocketdyne's public information officer.

Parts per billion is a unit of measure that gives the ratio of a contaminant to a pure substance. One drop of solvent would be equal to nine billion drops of water, Lafflam said.

The amount of toluene found in the well water is far below the level the state allows and the water is not used for drinking and poses no threat to public safety, Lafflam said.

"The state's action level requires 100 parts per billion. Technically, you can have that much in your drinking water, what we found was five parts per billion."

The water from the wells is primarily used for agriculture and livestock, Lafflam said.

Ventura County Agricultural Commissioner Earl McPhail said chemical level posed no threat to animals or agricultural.

"There isn't any danger at that level. I doubt if the animals would pick it up. And there isn't really any agriculture to speak of in that area," McPhail said.

The TCA came from the large engine and rocket stands testing areas, cleaning areas, and areas used for storage of hazardous wastes, Lafflam said.

Rocketdyne officials have been testing the wells quarterly for contamination since 1988, Lafflam said.

The last round of inspections took place in June. The toluene reappeared in December, said Lafflam.

ENTERPRISE 8/2/89

More Rockwell monitoring urged

EPA says extent of nuclear, chemical contamination at field laboratory unknown

By TONY KNIGHT
Daily News Staff Writer

Related stories
- Energy Department plan for nuclear cleanup proceeded Pg. 8
- Additional nuclear 'hotspot' found at Rockwell site Pg. 8

Environmental monitoring at the nuclear research portion of Rockwell International's field laboratory in the Simi Hills has been inadequate to determine if radioactive and chemical contamination is migrating off the site, according to a U.S. Environmental Protection Agency report released Tuesday.

The 37-page report prepared for Rep. Elton Gallegly, R-Simi Valley, confirmed the conclusions of a U.S. Department of Energy environmental audit released in May that more monitoring is needed to determine the extent of contamination at the Santa Susana Field Laboratory three miles west of Chatsworth.

The EPA report concluded that there is no immediate threat to the environment or public health but recommended that the Rocketdyne Division and the Department of Energy develop two new monitoring and analysis programs and prepare an audit that outlines every known contamination problem on the site.

"There's definitely enough data there that we would be aware if there was an imminent health threat," said Rich Vaille, assistant director of the EPA's Toxics Division in San Francisco.

"It's a site where there are a lot of areas with low-level contamination, and they're working on them. What we're saying is let's make sure that we have identified all of them and we know what it's going to take to clean them up."

See ROCKWELL / Pg. 8

NUCLEAR TESTING AT ROCKWELL

EPA recommends more monitoring

ROCKWELL / From Page 1

Gallegly demanded that the EPA assume a lead role in the Santa Susana cleanup after the Daily News reported in May that the DOE survey had found significant environmental contamination.

After the DOE environmental survey was released, officials with local agencies responsible for environmental safety said they were unaware of the problem.

Gallegly said Tuesday that he was pleased with the EPA's response.

"I think it's vital that the regulatory agencies and Rocketdyne continue to move expeditiously to deal with any problems that may be occurring, resolve them quickly, and ensure the public is protected," Gallegly said.

Rocketdyne officials conceded that the DOE had focused it's efforts on dismantling the extensive nuclear research facilities that were operated on the site in the 1950s and 60s, giving ground water and soil contamination problems a low priority.

"I guess if they had adequate amounts of money to go ahead and clean up everything, they'd do it," said Stephen Lafflam, Rocketdyne's environmental manager. "The DOE rightfully prioritized their efforts to get rid of the major sources of contamination."

DOE officials defended their environmental record on the site, saying they had spent $35 million on nuclear decontamination in the past 15 years, focusing on decommissioning extensive nuclear research facilities of the 1950s and 60s that fell into disuse in the 70s.

"That which needs to be done is being done, or will be done," said Richard Nolan, assistant manager of the DOE's San Francisco office.

The EPA report concluded that DOE should compile an audit of all contaminated areas at the facility and develop programs to sample rain runoff for chemicals and radioactivity and to monitor radioactive dust particles in the air.

Lafflam said that the company has installed portable filters to measure radioactive particles in the air and is developing a plan that will be in place by this fall to contain and monitor rain runoff.

The EPA also reviewed cleanup programs under way at U.S. Air Force and National Aeronautics and Space Administration programs being conducted at the 2,600-acre field laboratory, as well as operations at the 290-acre DOE-controlled nuclear portion of the site.

Extensive chemical contamination of surface and ground water and soil at the Air Force and NASA areas have been known for five years.

Acting as umpire to coordinate the cleanup activities among the various agencies, the EPA ruled that the state's Toxic Substance Control Division would take the lead in the chemical cleanup and the DOE would be in charge of cleaning up all radioactive contamination.

The state's Regional Water Quality Control Board would oversee surface water monitoring.

Additional monitoring is needed at the Santa Susana Field Laboratory, a federal report says.

REPORT AT A GLANCE

Here are some of the findings and conclusions of the EPA report on Rockwell's Santa Susana Field Laboratory:

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One more radioactive 'hot spot' found at lab

By TONY KNIGHT
Daily News Staff Writer

One more radioactive "hot spot" in the soil at Rockwell International's Santa Susana Field Laboratory came to light Tuesday with the release of a federal report on the site's environmental problems.

Radioactive soil outside a storage building for nuclear materials was excavated last month, according to the U.S. Environmental Protection Agency report. But the hot spot was not included in the environmental survey report on the nuclear research facility released in May by the U.S. Department of Energy.

EPA inspectors learned of the cleanup during an inspection tour July 12 and 13, said Rich Vaille, EPA assistant director of toxics for the western region.

"That's probably the one my field folks bumped into and they (company officials) said, 'Oh yeah. That's ongoing,'" Vaille said.

"It's a little disconcerting. And I think eventually it's important for a site this large that everybody have a clear understanding of what's happening," he said.

The EPA report said all of the contamination problems were included in the DOE survey conducted last year, including soil contamination near the Radioactive Materials Disposal Facility and near Building 64, the Source and Special Nuclear Material Storage building.

Company officials said they didn't have to report the contamination to the survey team because it was part of a continuing decontamination effort being conducted under the DOE's Surplus Facilities Management program.

The EPA report said that excavation of the Building 64 contamination was conducted in June. Company and DOE officials said the Building 64 contamination has been known for 10 years and was being cleaned up through another DOE program.

DOE and company officials said the Building 64 contamination was not a high priority because the radioactive particles they found in the soil [illegible] moved.

"You can not [illegible] that it's not going to [illegible]," said Lafflam, who said 48,000 cubic yards of contaminated soil was dug up and packaged for shipment [illegible].

Daily News 8/2/89

8/7/89

U.S. Proposes $40 Million for Rockwell Cleanup Plan

By MYRON LEVIN,
Times Staff Writer

The Department of Energy's five-year blueprint for cleanup of federal energy research and weapons sites includes about $40 million for decontamination and environmental testing at Rockwell International's Santa Susana Field Laboratory west of Chatsworth and its De Soto Avenue plant in Canoga Park, according to documents obtained from the DOE in Washington, D.C.

The draft proposal includes more than 20 specific projects for the two plants during the next five years, ranging from improved chemical storage and ground-water testing to cleanup of old nuclear reactor buildings and tainted soil. Since the 1950s, both Santa Susana and the De Soto plant have done nuclear research for the DOE and its predecessor, the Atomic Energy Commission.

Although the draft report, recommending $10.5 billion for the first phase of cleanup of federal energy sites nationwide, was ordered released Tuesday by Energy Secretary James Watkins, DOE officials in Washington and San Francisco said they still did not know exactly how much money had been earmarked for the Rockwell sites. The $40 million estimate was derived from a review of dozens of individual data sheets, spelling out funding levels for specific cleanup projects.

Final Version

Dick Nolan, special assistant to the manager of DOE's San Francisco operations office, said Wednesday he believed the total proposed for the local plants was "in the high 30s", but that he wasn't sure. He said a final version of the plan is scheduled for release in three weeks.

Officials with Rockwell's Rocketdyne division, which operates the Santa Susana and De Soto plants, said late Wednesday they hadn't seen the plan and couldn't comment.

But Nolan called the five-year plan "a living document" that will be periodically updated to reflect newly discovered cleanup needs and priorities. Some pollution problems, such as chemically tainted ground water, could take much longer than five years to correct.

Once the plan is made final, it will still depend on funding by Congress.

Despite extensive cleanup needs, officials of Rockwell and the DOE have repeatedly said Santa Susana poses no immediate health hazard. The federal Environmental Protection Agency has endorsed that

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VALLEY NEWS

CLEAN: DOE Plan

Continued from Page 9

position in a qualified way, noting that more monitoring of air and ground water is needed to make sure the lab is safe.

Most of the cleanup projects—including the big ticket items—are at Santa Susana, which includes DOE's Energy Technology Engineering Center, where Rockwell did research with non-nuclear components of atomic power plants. From the mid 1950s through the early '80s, 10 nuclear reactors also were operated at Santa Susana for the federal government, and contamination remains despite several decontamination programs.

The proposal calls for spending $2.1 million over four years to decontaminate Santa Susana's Building 59, where contaminated steam, sand and ground water were left after shutdown of a test nuclear reactor. Rocketdyne officials said some of the work has been done. Another $1.4 million is recommended for cleanup of former reactor test areas in Building 24.

The proposal includes $2.27 million for decontamination of soil, buildings and a leach field at a complex called the radioactive materials disposal facility, and more than $6.4 million to clean up chemical and radioactive contamination at a disposal site known as the sodium burn pit.

The draft plan calls for spending as much as $5.2 million to decontaminate the "hot cell" at the lab in the Simi Hills.

The hot cell is a heavily shielded structure used to decontaminate, or take apart, intensely radioactive nuclear fuel. This is done to remove plutonium and other materials for future use at other government sites. Rocketdyne's last fuel decladding contract with the DOE ran out in 1986. But the company has said it hopes to get future work and has applied for renewal of its hot cell license with the NRC, a request being opposed by some local groups.

Rockwell officials said Wednesday that inclusion of the hot cell cleanup project did not mean they had given up hopes of doing nuclear fuel work in the future.

DOE and Rockwell officials were unable to fully explain a proposed $177,000 for disposal of plutonium and other radioactive waste from two pending lab experiments. One of the experiments would involve "disposal of depleted uranium waste from a DOE/Rocky Flats explosion forming process," according to one of the data sheets.

Metals Not Explosive

Bob Tuttle, radiation and nuclear safety manager for Rocketdyne, said he did not understand that description of the work, which involved a process developed at Rocky Flats, the problem-plagued nuclear weapons plant near Denver run by Rockwell for the DOE. He said the radioactive metals used in the experiment were not explosive.

The largest of the De Soto projects is a proposed $500,000 program to monitor ground water beginning next year for chemical and radioactive pollution. State water officials, saying they had not been aware of the extent of nuclear work at the site, asked for the testing several weeks ago. Rockwell officials said they do not expect to find any radioactivity.

The De Soto plant operated a small nuclear reactor from 1959, when it opened, until 1979. The plant also manufactured nuclear fuel for the Atomic Energy Commission and its successor, the DOE, from 1959 until 1982. Decontamination of the 100,000-square-foot fuel fabrication area in 1984 involved removal of some soil where radioactive waste had leaked through pipe joints.

Rockwell still operates a gamma irradiation cell at De Soto, and the draft DOE plan called for spending $123,000 to decontaminate it by 1995.

Times staff writer Alan C. Miller contributed to this story.

Times 8/3/89

New questions raised on Rocketdyne site

DOE study calls radioactive contamination at Santa Susana Field Laboratory 'acute'

By Kevin Uhrich
The Enterprise Staff

8/3/89

Rep. Elton Gallegly, R-Simi Valley, will talk with Department of Energy officials today about a new report that radioactive contamination at Rocketdyne's Santa Susana Field Laboratory is "acute."

"We have been assured by DOE officials here and in Washington that there is no imminent threat to public safety," Gallegly's press aide, John Frith, said today.

"We have asked the DOE again today to spell out once and for all what the situation is up there.

"All along we have agreed with them that there are problems at the Santa Susana site," in the hills east of Simi Valley, "that need to be addressed," Frith said. "But, again, they are not life threatening problems."

DOE officials in Northern California reportedly said the problems characterized in the DOE's initial reports on the Rocketdyne site were erroneously exaggerated to get Congress to quickly allocate nearly $40 million that officials estimate is needed to clean up the radioactive mess at the rocket testing facility over the next five years.

However, DOE officials in Washington D.C. on Wednesday said the problems at Rocketdyne, the site of various nuclear programs during the late 1950s and early 1960s, are acute. Rocketdyne is a division of Rockwell International Corp.

Pat Coulter, Rocketdyne communications director, said today that he had been discussing the matter on the phone with DOE officials in Oakland but still has not seen the report. Coulter said that he could not comment on the report in detail until he had seen it.

"We contend and continue to contend there are no health hazards to our employees or to our neighbors," Coulter said.

The detailed cost estimates and cleanup priorities for the Rocketdyne plant are contained in a report released this week in cleanup procedures for nuclear sites across the nation.

The DOE plan calls for nearly $20 billion in federal funds to be allocated for cleanup activities at all DOE nuclear testing and research sites.

The most recent report on the proposed clean up process state that $7.3 million be allocated to cleaning up part of the Rocketdyne mountaintop plant by 1992. The money will be us-

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Report

(Cont. from Page 1)

ed to remove contaminated material from the plant and seal Building 59's basement to eliminate groundwater contamination.

The DOE report also calls for more than $5 million to be allocated by next year 1989 for decontamination procedures at the facility's "Hot Cell" laboratory.

The report states that delay and deferral of the clean up process will result in increased costs to the government.

"The problems that are left are serious but not so serious that they require immediate attention. That's what the five-year plan is all about," Frith said of the DOE report and proposed clean up plan.

"The draft document," of the DOE report released in the nation's capital Wednesday by Energy Secretary James Watkins, "raised more questions so we are asking the DOE to promptly respond to satisfy those questions," Frith said.

"That's where we are all right now," Frith said.

ENTERPRISE 8/3/89

THURSDAY, AUGUST 3, 1989

Senate approves Bush's shopping list for Pentagon/**News, Pg. 18**

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Rockwell problems called 'acute'

New study sparks dispute by contradicting earlier reports that minimized risk

By MARK BARNES
Daily News Washington Bureau

WASHINGTON — Radioactive and chemical contamination at Rockwell International's Santa Susana Field Laboratory could cause "near-term adverse impacts" to the public health and the environment if not cleaned up within the next several years, the Department of Energy said Wednesday.

In a draft report on cleaning up DOE facilities throughout the country, the DOE said it needs $39.5 million from Congress by 1995 to eliminate problems at the facility in the Simi Hills near Chatsworth.

That amount, the DOE said, includes $14.3 million for urgent "priority one" cleanup, described as "activities necessary to prevent near-term adverse impacts to workers, the public or the environment."

Earlier inspections of the facility determined there was no imminent threat to public safety. And just hours after the draft report was released, one DOE official said problems at Santa Susana were purposely exaggerated to get "as big a piece of the pie as possible" when cleanup funds are appropriated by Congress.

"I wouldn't give (the priority-one listings) too much credibility if I were you," said Richard Nolan, assistant manager of DOE's regional office in San Francisco.

"I would suspect that in an effort to get as much of headquarters' attention as we could ... it's very likely, or at least possible, that some of the criticality of these things were overstated," Nolan said.

Nolan's comments drew an angry response from agency officials in Washington, who called problems at the Santa Susana site "acute."

"He damn well better not have done that," said Paul Grimm, an aide to Assistant Energy Secretary Leo Duffy.

"We warned every one of the

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New study urges quick Rockwell cleanup

ROCKWELL / From Page 1

sites about that," Grimm said. "We want to have a realistic and practical goal of what needs to be cleaned up and what is the proper timetable."

Rep. Elton Gallegly, R-Simi Valley, said that the report "raises questions that need to be resolved quickly."

"Although I have been assured again today by DOE officials ... that there is no imminent threat to public health or safety, I intend to find out why the draft document appears to contradict the department's previous statements," Gallegly said.

"The public has a right to know exactly what the situation is at the Santa Susana facility and what steps are proceeding to take care of the problems there," he said.

Rockwell and Energy Department officials repeated Wednesday that there is no "imminent danger" to the public because radioactive and chemical contamination is contained within the facility's boundaries.

Pat Coulter, a spokesman for the company's Rocketdyne division, declined comment on the cleanup priorities established in the report.

But the DOE's Grimm acknowledged "what might appear at first blush to be a contradiction" between between the priority one designations and officials' claims that contamination at Santa Susana does not pose any immediate danger.

"I'm not going to try to tell you that the problems (at Santa Susana) are not acute," he said. "They certainly are, and we're concerned not only with identifying them but doing something about them.

> *"Although I have been assured again today by DOE officials . . . that there is no imminent threat to public health or safety, I intend to find out why the draft document appears to contradict the department's previous statements."*
>
> **— Elton Gallegly**
> **Representative from Simi Valley**

"But there's nothing at that site that cannot be contained and confined on site. As a result, it's accurate to say there's nothing up there that poses an immediate public health threat."

The detailed cost estimates and cleanup priorities for the Santa Susana field lab are contained in a draft plan for cleaning up the nation's nuclear sites that was released this week. The broad outline of the cleanup plan was announced Tuesday by Energy Secretary James D. Watkins.

The nationwide plan calls for $19.5 billion to be spent by 1995, including about $1.8 billion in fiscal 1990 for priority-one cleanup tasks.

A "predecisional" draft of the plan — including voluminous site reports for each DOE-operated nuclear facility — was made available to reporters on Wednesday.

The Santa Susana site report, which establishes estimated costs and the priority for cleanup, was produced by Rocketdyne officials working with DOE site supervisors. Among the priority-one projects cited in the report are:

■ Decontamination of Building 59, where there is radioactive contamination from a spent nuclear reactor vessel in the basement.

The report proposes that $7.2 million be spent before the end of fiscal 1992 to remove contaminated material and seal the basement "to eliminate ground water contamination."

"Deferral or delay of this program increases risk of enhanced ground water contamination," the report states.

■ Decontamination of the Hot Cell laboratory, where work involved the removal of metal cladding from radioactive fuel elements.

The report urges that $5.2 million be spent by the end of fiscal year 1990, and says deferral or delay will result in increased costs to the government.

■ Survey and maintenance of Building 24, where space reactors were tested. The report proposes $149,000 be spent by fiscal 1995 to ensure that radioactivity is confined within the building.

"Deferral or delay of this activity could result in release of contaminated material outside of Building 24," the report states.

■ Survey and maintenance of the Radioactive Materials Disposal Facility, where contaminated waste is held on-site before being disposed. The report proposes that $761,000 be spent by fiscal year 1995 to ensure that radioactivity is confined in the site.

"Deferral or delay of this activity could result in loss of the license to operate the facility," the report states.

■ Survey and maintenance of Building 5, "a formerly used uranium carbide casting facility."

The report recommends that $30,000 be spent in fiscal 1991 to ensure that "radioactive contamination is contained within abandoned exhaust ducting, scrubbers and a filter plenum."

Deferral or delay could result in increased cleanup costs, the report states.

■ Survey and maintenance of work areas throughout the Santa Susana facility. The report recommends that $55,000 be spent in fiscal 1991 to contain radioactive contamination in work areas at Buildings 9, 29, 64, 12 and 100.

"Deferral or delay of this activity increases risk of ground water contamination," the report states.

Other, lower-priority cleanup proposed in the plan includes assessment and cleanup of radioactive and chemical contamination at a sodium burn pit and several other contaminated buildings at the facility.

DAILY NEWS 8/3/89

ENTERPRISE 8/4/89

DOE says new rating doesn't change danger

By Dean Oesterle
The Enterprise Staff

The Department of Energy has agreed to provide Rep. Elton Gallegly a written explanation for the surprisingly high priority rating given the Santa Susana Field Laboratory for cleanup funding.

Gallegly, R-Simi Valley, asked for the report after learning Rocketdyne's Field Laboratory had been given "priority one" status — indicating the highest need for cleanup funding — as part of a new category system.

Gallegly and his staff was surprised at the priority assignment, which seemed to contradict DOE and Rockwell reports about the levels of contamination and potential threat to the community. Gallegly's chief of staff, Mike Sedell, said this morning.

The latest information is part of a "pre-decisional" DOE report, shown to reporters Wednesday by Energy Secretary James Watkins after a discussion of the department's Environmental Restoration and Waste Management Five-Year Plan. The Field Laboratory is stated to receive $39.5 million of the plan's proposed $19.5 billion cleanup fund.

"Priority one," as defined by the DOE, primarily means that activities are necessary to prevent near-term adverse impacts to the workers or the environment, Sedell said.

The Santa Susana site had previously had some areas defined as being "category one" — involving immediate threat to human life, Sedell said. But Rockwell and DOE

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Cleanup

(Cont. from Page 1)

officials had assured Gallegly that those items had been taken care of. Priority one better reflects the DOE's predicament, the DOE says.

"They have been adamant that there's no health and safety risk at the site, that it is a matter of a different set of classifications," Sedell said.

Energy Department officials told Gallegly the assignment of the top priority classification to the Field Laboratory appears to be mainly a question of semantics and a secondary part of the risk-assessment process, Sedell said.

Energy Department officials at the regional office in Oakland and Rockwell officials could not be reached for comment.

A need for continuing efforts to take care of the Field Laboratory problems, which could pose a threat if these efforts were halted, was the secondary but key component of the priority assignment, DOE officials have told Gallegly, Sedell said.

Officials at the DOE have promised to put that clarification in writing, Sedell said. That report is expected by the end of next week.

Differences between the methods used to prioritize the Field Laboratory, and other past and present nuclear sites requiring decontamination across the country, have been blamed for the problem.

Watkins and Assistant Secretary Leo Duffy told reporters the findings were still preliminary and subject to repeated, continuous change.

The priority system, which categorizes needs by "priority one" to "priority four," was based on the data almost completed at the sites.

The classifications are set aside by the site managers — those seeking federal funds to clean them up.

"Priority two" projects require funding to fulfill agreements between the DOE and other agencies. "Priority three" projects are those needed to comply with other "external environmental regulations."

"Priority four" projects are not required to comply with agreements or regulations but are considered "desirable."

The facilities have been warned by DOE officials not to overinflate their needs to better their chances of getting money.

DOE to clarify safety data on lab

By MARK BARNHILL
Daily News Washington Bureau

WASHINGTON — The Energy Department has agreed to provide a written report to Rep. Elton Gallegly explaining apparent contradictions in contamination assessments at Rockwell International's Santa Susana Field Laboratory, a Gallegly spokesman said Thursday.

Gallegly, R-Simi Valley, asked for the report after learning that a draft proposal for cleaning up the nation's nuclear sites "appears to contradict the department's previous statements" about Santa Susana contamination, said spokesman John Frith.

"They have agreed to put together a document responding to the differing definitions that appear to exist," Frith said.

DOE officials in Washington have promised to deliver the report to Gallegly by the end of next week, Frith said.

Rockwell, the Energy Department and the Environmental Protection Agency have all said that there is no immediate threat to public safety from radioactive and chemical contamination at Santa Susana.

But the DOE's $19.5 billion cleanup proposal, released this week by Energy Secretary James D. Watkins, appeared to contradict that assertion in requesting $29.5 million to eliminate problems at Santa Susana.

The Santa Susana funding request includes $14.3 million for urgent "Priority One" cleanup, described as "activities necessary to prevent near-term adverse impacts to workers, the public or the environment."

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Daily News 8/4/89

DOE agrees to new Rockwell report

ROCKWELL From Page 1

Gallegly said DOE officials assured him again this week that contamination at Santa Susana poses no "imminent threat." But he asked DOE officials to explain why, if indeed there is no danger, the facility's funding request includes urgent Priority One designations.

"The public has a right to know exactly what the situation is at the Santa Susana facility and what steps are proceeding to take care of the problems there," Gallegly said Wednesday.

Pat Coulter, a spokesman for Rockwell's Rocketdyne division, declined comment Thursday on the designation of Priority One cleanup areas at the Santa Susana facility.

"We still have not seen a copy of the plan, and until we do it would be inappropriate to comment," Coulter said.

Richard Nolan, assistant manager of DOE's regional office in San Francisco, said Wednesday that problems at Santa Susana may have been purposely exaggerated to get "as big a piece of the pie as possible" when Congress appropriates cleanup funds.

The draft cleanup plan, formally known as DOE's Environmental Restoration and Waste Management Five-Year Plan, was crafted from nearly 2,000 individual "activity data sheets" submitted by nuclear facilities across the country.

Each sheet detailed a particular contamination problem, estimated the cost and timetable for cleaning it up, and established a priority between one and four for completing the project.

Priority Two projects are those that are necessary to comply with agreements between DOE and other agencies, and Priority Three projects are those "required for compliance with external environmental regulations" but not covered by the top two priorities.

Priority Four projects are those that "are not required by regulation but would be desirable to do."

DOE officials in Washington said nuclear facilities across the country were warned against inflating the severity of their problems in order to receive more money.

But they acknowledged potential flaws in allowing individual facilities to set their own priorities.

"People will perceive priorities in their own way, and what is considered a priority one at one place may be a priority two or three at another," said Paul Grimm, an aide to Assistant Energy Secretary Leo Duffy, the architect of the cleanup plan.

Grimm said the proposal is a "living document" that will be refined and updated repeatedly, beginning with a 90-day public comment period that starts at the end of this month.

"In this initial version of the plan, we do not have the capacity to validate 100 percent every single priority base and determine whether we would agree with it," he said. "I'm not going to project for a second that ... what one site submitted compares absolutely with another.

"But we plan to have a much more thorough review of those kinds of issues as we move forward with this plan," Grimm said.

"We will have people ... who will be able to scrutinize and independently assess what a site has done and weigh that and balance it against another site to make sure we have the right technical insight into what should be funded at the highest priority."

Possible violations investigated

Rockwell didn't tell state about pollution

BY TONY KNIGHT
Daily News Staff Writer

8-3-89

State toxics officials are investigating whether Rockwell International violated the law by not informing them of a pit contaminated with radioactivity and chemicals at the company's research facility in the Simi Hills, Department of Health Services officials said Friday.

"It is the subject of an ongoing investigation and could result in enforcement action," said Dennis A. Dickerson, section chief of the department's Toxic Substance Control Division.

Officials with the company's Rocketdyne Division, which operated the nuclear research portion of the field lab for the U.S. Department of Energy, said Friday that they did not directly inform state officials of the results of 1987 tests that revealed high levels of toxic solvents and low levels of radioactive cesium-137 in the pit.

They said that the information was relayed to the DOE's San Francisco office in 1988.

"We gave it to the DOE-SAN (San Francisco) manager's office, and they said they submitted it to

See ROCKWELL / Back Pg.

State probes whether Rockwell violated law

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the EPA and to the Department of Health Services," said Stephen Lafflam, Rocketdyne's environmental manager.

However, a DOE environmental audit of the field lab, dated April 1988 and released Friday by the San Francisco office after a request filed under the federal Freedom of Information Act, states that the Environmental Protection Agency and the state health department were not informed.

That April 1988 report outlines the same environmental problems included in the DOE audit released a year later and makes 22 recommendations, including that "Rocketdyne shall report their 1987 soil sampling results to the California Department of Health Services for the old Sodium Burn Pit."

EPA and state officials said that the company would have been required to report the contamination in the pit under the federal Resource Conservation and Recovery Act or the Superfund cleanup legislation.

Dickerson said that the state health department has assumed oversight of the cleanup of chemical contamination at the nuclear research portion Santa Susana Field Laboratory three miles west of Chatsworth at the direction of the EPA.

If the company did not report the results of the tests in a timely manner, it could be liable for civil action and retroactive fines up to $10,000 a day.

He said that the toxic division's enforcement arm also is investigating why health officials did not hear of the burn pit until May 14, when the Daily News reported the findings of a DOE environmental audit of the field lab, which is operated by the Rocketdyne Division.

The DOE audit of the 290-acre nuclear research portion of the field lab, dated February 1989, indicated that the company had detailed information on contamination of the burn pit based on analysis of soil samples taken in September 1987.

If the company did not report the results of the tests in a timely manner, it could be liable for civil action and retroactive fines up to $10,000 a day, said Jim Marxen, spokesman for the health department in Burbank.

Lafflam said that Rocketdyne officials were told by DOE officials in San Francisco that they had informed the EPA and health department.

"When this appraisal was done, we investigated it to see if DOE had submitted it to the agencies," Lafflam said. "We were told that it was submitted to them already."

Efforts to reach Richard Nolan, assistant manager of the DOE's San Francisco office, were unsuccessful Friday.

Martin Domagala, DOE's deputy assistant manager for environment, safety and quality assurance, said that he could not say whether the DOE informed the other agencies or if the company complied with all of the recommendations in the report.

"If a recommendation wasn't done, there could be several reasons for it," Domagala said. "There could be a disagreement with them over our findings. There could be budgetary problems with them getting the money."

Lafflam said that the company implemented about a half-dozen of the 22 recommendations outlined in the DOE environmental appraisal of April 1988. He said the company "talked them out of" complying with some recommendations, and postponed action on others until the DOE obtained funding from Congress to do them.

"They don't have any money," Lafflam said of the DOE's Environment, Safety and Quality Assurance Division. "They identify the problem and say, 'Now Rockwell and DOE field the money.' And that's what we've been doing, working to get Congress to fund the work."

The Sodium Burn Pit is one of the major contamination problems at the field lab, according to the DOE's February 1989 environmental audit. The report also outlined ground-water chemical contamination at Building 59, and the potential for radioactivity to leak out of the building into the ground water.

The report said that there is no immediate health threat, but more ground-water monitoring wells should be drilled to determine the extent of the contamination.

The DOE environmental appraisal of a year earlier came to the same conclusions, recommending that more monitoring wells be dug.

Among the other recommendations were:

- That Rocketdyne install dust filters to determine if radioactive dust was blowing from the burn pit.
- That the company repair a diversion ditch around the pit to ensure that rain wouldn't wash radioactivity off the company property.
- That the company initiate a monitoring program to see if radioactivity was getting into the food chain through contaminated vegetation.
- That a roof be built over radioactive wastes stored outside at the Radioactive Materials Disposal Facility to prevent rain from washing radioactive particles into the environment.

DOE records show that the audit team from department headquarters that visited the site six months later also ordered repair of the ditch around the burn pit. The company since has repaired the ditch.

The dust filters were installed last month at the request of the EPA, which has taken over coordination of the cleanup at the field laboratory.

Lafflam said that the company did not begin a food-chain monitoring program or build a roof over the nuclear wastes.

"We convinced them that there was not a large amount of runoff," Lafflam said.

He said that it was highly unlikely that any animals used by humans for food would eat contaminated vegetation at the plant site.

"We shot that down," he said. "That was ridiculous."

Daily News 8/5/89

ENTERPRISE 8/8/85

Rocketdyne defends facility

By Armando Aguirre
The Enterprise Staff

8889

Rocketdyne officials said today a request from anti-nuclear groups to the Nuclear Regulatory Commission to close operations at Rocketdyne's Santa Susana Field Laboratory should not apply to the facility in the Simi Hills.

The Committee to Bridge the Gap and Los Angeles Physicians for Social Responsibility said a federal investigation of radioactive contamination at Rockwell's Rocky Flats, Colo., facility raised questions about the company's ability to handle nuclear materials at the Santa Susana lab.

"We're a separate division from the Rocky Flats facility. Any connection between Rocky Flats and Santa Susana, other than the fact that we're part of Rockwell International, is inappropriate," said Rocketdyne spokesman Paul Sewell.

In June, federal agents raided the Rocky Flats facility near Denver after charges were made involving improper storage of hazardous waste and illegal release of the materials there.

> *"Any connection between Rocky Flats and Santa Susana ... is inappropriate"*
>
> — Paul Sewell

NRC regulations state that the public can amend, revoke, suspend or terminate a license. An agency official then determines if the petition has sufficient merit to justify public hearing.

Steven Aftergood of the Los Angeles-based Committee to Bridge the Gap said that because the Rocky Flats facility is the subject of a criminal investigation, the NRC should suspend the Santa Susana facility's operating license.

Sewell said the soil and groundwater contamination problems at the local lab are not connected with operations at Rocky Flats because the facilities have different functions.

"They are involved in weapons testing, and we make small nuclear test reactors related to research," Sewell said. "We haven't used nuclear materials in 10 years; it would serve no purpose to suspend our license."

The Rocky Flats facility makes plutonium triggers for nuclear bombs, Sewell said.

Rocketdyne today released reports from an environmental audit conducted by the Department of Energy showing chemical contamination of groundwater and radioactive contamination of the soil at the facility.

The DOE report stated that while there was no health threat, more tests should be conducted on the site and the surrounding area.

"These reports preceded the unsatisfactory condition report. They're being released in the spirit of cooperation and openness," said Public Information Officer Joyce Lincoln.

Suspension of license for Rocketdyne sought

By TONY KNIGHT 9/24/87
Staff Writer

Two activist groups petitioned the Nuclear Regulatory Commission on Monday to suspend Rockwell International's license to possess nuclear materials at its Santa Susana research facility in the Simi Hills.

The Committee to Bridge the Gap and Los Angeles Physicians for Social Responsibility said that a federal investigation of radioactive contamination at Rockwell's plant in Rocky Flats, Colo., raised questions about the company's ability to handle nuclear materials at the Santa Susana Field Laboratory three miles west of Chatsworth.

Under NRC regulations, the public can petition the agency to amend, revoke, suspend or terminate a license, said Leland Rouse, agency spokesman. An agency official then determines if the petition has sufficient merit to justify

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Nuclear permit suspension sought

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a public hearing, he said.

"What the petition is doing is to remind the NRC that one of their licensees is the subject of a criminal investigation by the FBI, and they should therefore, we ask, suspend authority to possess nuclear materials under this license," said Steven Aftergood, Washington representative for the Los Angeles-based Committee to Bridge the Gap.

A spokesman for the company's Rocketdyne Division said there is no connection between soil and ground-water contamination problems at Santa Susana and the criminal investigation at Rocky Flats.

"Any connection between Rocky Flats and Rocketdyne (Santa Susana), other than the fact that we are part of Rockwell International, is completely inappropriate," said spokesman Pat Coulter. "We have two different products and two different missions."

NRC spokesman Leland Rouse, chief of the fuel cycle safety branch in Washington, said the petition would be reviewed by the agency's legal staff. He said he had not read it.

"As far as I know ... Rockwell is in complete compliance with their nuclear materials license," Rouse said. "They have applied for renewal. The license will remain in effect until NRC makes a determination on the renewal. We have not even started any review of the renewal application."

A DOE environmental audit released in May after its contents were reported in the Daily News showed problems with chemical contamination of the soil and ground water and radioactive contamination of the soil at the 290-acre nuclear research field laboratory.

The report said there was no imminent health threat, but more monitoring is needed to determine the extent of the contamination.

Most nuclear facilities at Santa Susana are under the control of the U.S. Department of Energy and not subject to NRC jurisdiction, Rouse said.

Rocketdyne Division has an NRC license to possess up to 5 kilograms of uranium-235 and up to 2 kilograms of plutonium at the Hot Cell Laboratory on the Santa Susana site.

Rocketdyne and NRC officials have said that there are no nuclear materials in the Hot Laboratory now because it is undergoing decontamination and refitting.

Rockwell International also owns the Rocky Flats plant near Denver. Federal agents raided that plant in June after allegations were made of improper storage of toxic wastes and of illegal release of toxic materials at the plant, which makes plutonium triggers for nuclear bombs.

Rocketdyne conducted extensive research on nuclear power reactors at the Santa Susana facility in the 1950s and '60s, but little nuclear research has been conducted at the site since the early '70s.

Rocketdyne began drilling 17 monitoring wells at the site last month, and the Environmental Protection Agency has assumed oversight of the cleanup plan.

Daily News 8/8/85

Times 8/1/89

2 Groups Act to Block Renewal of Rockwell's Nuclear License

By TRACEY KAPLAN, Times Staff Writer 8/8/89

Two anti-nuclear groups announced Monday that they have petitioned the Nuclear Regulatory Commission to reject Rockwell International's bid to renew its operating license for a nuclear fuel recycling facility at the Santa Susana Field Laboratory.

The Los Angeles chapter of Physicians for Social Responsibility and the Committee to Bridge the Gap claim Rockwell is unfit to handle radioactive materials and have asked the NRC to hold public hearings before ruling on the license renewal. Such hearings are discretionary under NRC regulations.

The firm's license, which expired June 30, has been extended indefinitely while the NRC assesses the environmental impact of the "Hot Lab" facility west of Chatsworth, NRC spokesman Greg Cook said.

Rockwell officials said no nuclear work is being done at the lab, but that the firm's Rocketdyne division is seeking future contracts. From the early 1960s until 1988, the Hot Lab was used to remove plutonium and other materials from nuclear fuel rods and package them for future use.

The anti-nuclear organizations claimed in a seven-page memo to the NRC that Rockwell should not be allowed to handle radioactive materials because of alleged hazardous-waste violations at the Rocky Flats Nuclear Weapons Plant near Denver, which Rockwell manages for the U.S. Department of Energy. The weapons plant is the subject of a criminal inquiry by the FBI and the U.S. Environmental Protection Agency.

The memo also states that Rock-

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well should not be granted a 10-year license to operate the Hot Lab because of its record of "environmental neglect" at Santa Susana. A DOE report released in May disclosed low-level chemical and radioactive contamination at Santa Susana, where the company operated about 10 nuclear reactors between 1947 and 1988.

Rocketdyne spokesman Pat Coulter said Monday there are no significant environmental problems at the Santa Susana site and called the charges of neglect "completely inaccurate and unfounded." He said Rocky Flats and Santa Susana are managed by different divisions of Rockwell and there is no connection between them.

NRC spokesman Frank Ingram said an administrative law judge appointed by the agency will consider the request for a hearing after completing review of an environmental impact report on the Hot Lab in several months. He said there is no deadline for the agency to act on the request.

But Dr. Richard Sasen, an orthopedic surgeon in Encino and a board member of Physicians for Social Responsibility, said, "There are lots of concerned people out there, and no matter how long it takes, the closer from the community to stop Rockwell's nuclear activities won't die down."

The group has a membership of about 35,000 doctors, dentists and other health professionals nationwide, about 2,000 of them in Los Angeles. Committee to Bridge the Gap is a Los Angeles-based group.

Cleanup at Simi Hills lab reported ahead of schedule

By PETE BARRETT
Daily News Staff Writer

Two years ahead of schedule, Rockwell International officials are digging up soil contaminated with radioactive ash long as 27 years ago and piping it at the nuclear research facility in the Simi Hills, company officials said last week.

Officials said radiation up to 100 times the level naturally occurring in the area has been found outside a storage building where a fuel rack leaked in 1962, and which was noted in a U.S. Environmental Protection Agency report completed July 31.

The company also cleaned up contaminated dirt near an unused parking lot area so that it could drill a ground water moni-

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Lab cleanup called ahead of schedule

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ering well near an old hazardous dump site, which also was referred to in the EPA report.

Stephen Laffiam, environmental manager for the company's Rocketdyne Division, said the soil near the parking lot was only slightly above background level and did not endanger workers' health.

"Absolutely not, there's no health hazard whatsoever," Laffiam said Friday. "Instead of them (construction workers) driving back and forth through this area continually, even though it was two to three times background (level), it was easier to say we took it out before we moved the equipment in."

A U.S. Department of Energy survey report [illegible] the Daily News in May [illegible] monitoring at the 290-acre nuclear site, and said more tests were needed to determine the extent of the contamination.

Rocketdyne officials said that since last month the company has excavated about 45 cubic yards — equivalent to a hole three yards long on each side and five yards deep — of soil contaminated with radioactivity.

Most of the soil came from a fenced-off area where a fuel shipment rack leaked radiation outside Storage Building 64 in 1962, he said.

A larger area of contamination was cleaned up at the time of the spill but "hot spots" nearly 100 times background levels remained in a few places, said Robert J. Tuttle, Rocketdyne's radiation health physicist.

Laffiam said the Building 64 area is isolated because of the kind of materials that historically were handled there — not the contamination.

The soil recently excavated — enough to fill about a third of an 18-wheel-truck load — was scraped up by a heavy equipment operator wearing a dust mask, and packed in steel-lined boxes for indefinite storage at the facility three miles west of Chatsworth for eventual out-of-state shipment, Tuttle said.

The DOE estimates that up to 124 cubic yards of excavated dirt will be stored at the Santa Susana Field Laboratory until the agency finds the money to pay transportation and disposal costs, which are expected to range from about $35,000 to $230,000, depending on the final destination, said Richard Nolan, DOE assistant manager in San Francisco.

Nolan said the DOE decided to go forward with the two excavations because funding had become available. He said the two sites were smaller and less expensive than other projects, such as an old hazardous waste disposal facility that company officials estimate will require 1,000 cubic yards of excavation.

"The funding was available," Nolan said. "There was no urgency to do it now."

The contaminated ground someday will be shipped in labeled, specially designed containers through West San Fernando Valley streets to either the Simi Valley Freeway or the Ventura Freeway through the city to low-level radioactive disposal sites in Hanford, Wash., or Mercury, Nev., officials said.

Federal and state laws place few restrictions on the radioactive shipments, except that the materials be properly identified and encased. California Highway Patrol officials said. The CHP generally does not do independent checks of radioactive cargos, although it may look at a driver's paper work listing the contents.

"We [illegible] on the shipper to tell us what's in there," said CHP Sgt. Doug Munyer. "We don't have the expertise to do that."

Notification of emergency personnel is only required under state law when transporting commercially produced spent fuel, which Rocketdyne has done at least once in the last three years, Munyer said.

Rocketdyne began the soil excavations last month about the time the U.S. Environmental Protection Agency announced it would do its first characterization of contamination at the nuclear research site, and would assign future regulatory responsibility for cleanup among state and federal agencies.

In the past, the EPA has left most of the oversight responsibility to the DOE, which runs the site. That policy was changed after disclosure of radioactive contamination previously unknown to the EPA and other regulatory agencies, which have monitored toxic pollution at the facility for years.

Tuttle said the company identified most of the soil contamination sites in a 1987 radiological survey, although the Building 64 contamination had been known since the early 1960s. He said the company did not complete the cleanup work after the contaminations occurred because the radioactivity was not considered high level, and did not pose a health threat.

The soil contamination at Building 64 was not mentioned in the May 1988 DOE survey team report, although Tuttle said the survey team had access to the earlier company report. Laffiam said the soil contamination did not have to be reported to other agencies because the cleanup was part of an ongoing process.

On July 31, an EPA task force said the soil was being excavated along "the Building 64 fence line, berm and roadway." But it added that additional soil sampling may be needed to determine the extent of soil contamination at the site.

The EPA report also said radioactive soil had been removed from the Old Conservation Yard, a dump site where hundreds of drums and pieces of equipment were stored during the 1960s and 1970s, and which the DOE survey team identified as a potential source of soil and ground water contamination. The report said Rocketdyne now considers the yard clean.

The DOE survey team said in its report that the documents it was provided showed the conservation yard was cleaned up in 1981, although it added there were no records available to confirm the clean-up activity.

Laffiam said about five cubic yards of soil in the conservation yard collected in a low spot between two paved, but unused parking lots. He said company officials believe the contamination may be the result of nuclear fallout, which concentrated in the depression over the years as the rain evaporated, and is not the product of a spill.

In a draft DOE budget report setting priorities for the Santa Susana lab, the agency recommended that $55,000 be spent in 1991 on Building 64, the conservation yard and three other [illegible] work areas to contain radioactive contamination.

"[Federal or state] [illegible] any interests that [illegible] contamination," the report states.

The draft DOE budget report says the agency needs an additional $10 million from Congress by 1995 to eliminate problems at the Santa Susana lab.

Rocketdyne and EPA officials have identified other soil sites where radioactivity is above natural background levels, including "hot spots" up to 200 times higher near a waste system leach field where a radioactive water spill in the early 1960s [illegible] detected until 1978.

The company removed 1,500 cubic yards of dirt and used a jackhammer to go through 10 feet of bedrock before giving up and capping the bedrock with asphalt and fresh soil. The EPA retested the leach field last month, and is awaiting the results.

Tuttle said even though ozone levels are 200 times above natural background in the leach field, they pose no threat to public health and the radiation is not moving swiftly through the soil to a gully leading downhill to the Simi Valley area.

Laffiam said the company has no immediate plans to excavate any more material from the leach field.

The EPA also said it found slightly elevated radioactive levels in a hazardous waste disposal pit, or New Sodium Burn Pit. Laffiam said the company has not determined the extent of the contamination, and has no immediate plans to excavate soil.

Another disposal pit, the old Sodium Burn Pit, where company tests in 1987 revealed high [illegible] levels of small amounts and low levels of radioactive cesium-137, [illegible]

Laffiam said.

The company for more than two decades has shipped dozens of truckloads of radioactive materials — ranging from radioactive soils to plutonium — down Woolsey Canyon Road to Valley Circle Boulevard on the valley floor, said Bill Rucker, the manager of Tri-State Motor Transit Co.'s nuclear and hazardous materials division.

The trucks then go down Plummer Street to Tampa Ave. [illegible] on route either to the 118 or [illegible] freeways, he said.

Tri-State [illegible] has been Rocketdyne's [illegible] carrier over 20 years, company officials said. Rucker said the company's trucks have traveled 100 million miles without a radioactive release.

Rucker said the bulk of the radioactive materials shipped in and out of the Rocketdyne facility during the mid-1970s and early 1980s. At its peak, Tri-State was hauling as many as four truckloads of radioactive material from the lab, he said. That is [illegible] up to 190 55-gallon barrels, or over 250,000 pounds a month, he said.

"We did a great deal of work there. We handled the full range of nuclear," Rucker said. "It's tapered off in the late 1980s."

Rocketdyne spokesman Paul Sewell said Thursday the company will not disclose the amount of radioactive material it has taken out of the facility, because the Daily News had a pending Freedom of Information [illegible] for the information.

DAILY NEWS 8/13/89

Times 9/1/89

EPA Memo Cites Flaws in Rockwell Radiation Tests

By MYRON LEVIN, Times Staff Writer

A federal Environmental Protection Agency memo says Rockwell International for years has used faulty test methods to monitor radioactive pollution at its Santa Susana Field Laboratory west of Chatsworth, casting doubt on the accuracy of company data showing that contamination there is relatively mild.

The internal memo by an EPA radiation expert attacked Rockwell's methods for analyzing water, soil and vegetation samples at Santa Susana, adding that he questioned "the validity of some, if not all, of their environmental data."

Because of flawed analytical techniques, it is impossible to "guarantee that past actions have not caused off-site impacts" or that future problems will be detected before they affect off-site areas, said the eight-page memo by Gregg Dempsey, a health physicist and branch chief of the EPA's office of radiation programs in Las Vegas.

However, Dempsey added, he found nothing that should worry the site's neighbors.

An internal report faulted the Santa Susana lab data, but the expert who wrote it said he found nothing that should worry the neighbors.

But Dr. Richard Saxon, who heads the Los Angeles chapter of Physicians for Social Responsibility, said Dempsey's findings confirm the group's belief that Rockwell and its customer, the U.S. Department of Energy, have failed to adequately monitor the site. Saxon's group is fighting renewal of the nuclear materials license Rockwell needs to recycle nuclear fuel at Santa Susana for use at DOE weapons sites.

"There obviously needs to be a more massive monitoring of Santa Susana, and Rockwell should not be given a new license to operate a nuclear fuel rod recycling facility," Saxon said.

But Dempsey stressed in an interview that flaws in the monitoring program do not translate into an immediate health risk to people near the 2,668-acre research complex in eastern Ventura County.

"I'm not getting real excited about it," Dempsey said. "I don't think there is a reason for a person who lives nearby to be concerned" about possible dangers.

He said he based his opinion on measurements made during a July 12-13 visit to the site, which is operated by Rockwell's Rocketdyne division.

During the visit, dosimeters—devices to measure radiation exposure—worn by EPA inspectors registered negligible radiation, the memo said. Moreover, survey instruments used by the EPA team showed radiation at or near natural background levels at most areas of the site.

EPA officials also took some soil and water samples during the visit. Some of the analyses have been concluded and "I haven't seen anything that's a problem" so far, Dempsey said.

Still, the memo is certain to increase pressure on Rocketdyne and the DOE to allow independent monitoring of the Santa Susana site and a wider role for regulatory agencies that have been partly excluded under provisions of the Atomic Energy Act. The state Department of Health Services recently asked the DOE for a $250,000 grant to support state monitoring at Santa Susana and other DOE sites, including Lawrence Livermore Laboratory.

Dempsey's memo was dated July 28 but was not released until this week to give Rockwell officials a chance to respond, an EPA spokesman said.

In a Wednesday letter to the EPA, Jon T. Nagamatsu, a Rocketdyne vice president, said the firm has agreed to follow some of Dempsey's recommendations and wants to "collaborate" with EPA officials.

But he said radioactivity measurements by the EPA team provide further "assurance that the site and the surrounding environment are safe for our employees

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ROCKWELL: Memo Says Tests at Site Were Flawed

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and our neighboring communities."

Much of the Santa Susana site is devoted to rocket testing and research for NASA and the Air Force. But 290 acres have been reserved for nuclear projects for the U.S. Department of Energy, including operation of 10 small nuclear reactors from the 1950s to the early 1980s and recycling of nuclear fuels for use in energy and weapons manufacturing programs. Demand for fuel recycling fizzled out, at least temporarily, in 1988. Current activity mainly involves the cleanup of soil and buildings contaminated by 30 years of nuclear work.

[illegible] "is a screening method at best." It does not provide "a true representation of conditions present in the environment."

• Rocketdyne has failed to test soil and ground water for tritium, a form of radioactive hydrogen. Dempsey said while some radioactive materials bind tightly to soil and do not readily move into ground water, tritium is more mobile and so its presence is a better indicator of potential ground-water pollution. Dempsey said that a device called a liquid scintillation counter is required to test for tritium and that he was "rather surprised" to learn Santa Susana doesn't have one.

• Rocketdyne does not have "a good 'handle' on where radiation has been inadvertently or intentionally dumped on-site," the memo said. "Most of the evidence on site spills is incompletely documented or anecdotal." The memo recommended that consultants be hired to do aerial searches for contaminated areas. Nagamatsu said aerial searches have been done in the past and will be done in the future.

• Rocketdyne should install a meteorological tower at Santa Susana, instead of relying on data from Burbank Airport on wind patterns and other weather conditions. "It's good data for Burbank," Dempsey said in an interview. "It may not be good data for Rocketdyne."

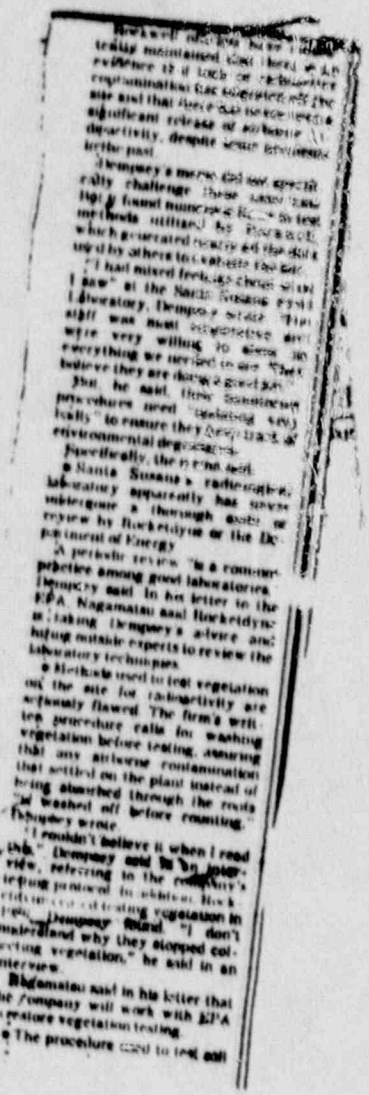
• Rocketdyne has no program for testing wildlife for possible contamination. The memo recommended that the company get permits to kill animals and deer near the site or analyze road kills.

The EPA's involvement at Santa Susana followed wide publicity in May about a DOE report on chemical and radioactive contamination at Santa Susana. The EPA's role at the site had been minimal, but Rep. Elton Gallegly (R-Simi Valley) demanded that the agency assess the site and coordinate oversight by a group of health and environmental agencies.

The EPA agreed to chair an interagency task force on Santa Susana. Its July visit to Santa Susana was part of a reassessment of the site under the federal Superfund program, which [illegible] gets the nation's worst toxic waste sites for priority action.

Santa Susana previously scored far too low on a hazard scale to make the Superfund list, which includes about 900 sites nationwide. The main reason was lack of evidence that residents of the comparatively sparsely populated area around the laboratory were exposed to air, water or soil contamination. Although the reassessment is incomplete, EPA officials have said it appears the site still will not qualify for Superfund status.

Times staff writer Tracey Kaplan contributed to this story.



Daily News 9/1/89

Katz calls for soil test at Rockwell's field lab

By BETH BARRETT
[illegible]

Assemblyman Richard Katz, D-Sepulveda, called Thursday for the state's water quality board to test soil at a hazardous waste dump at Rockwell International's Santa Susana Field Laboratory to determine if the company is violating state toxic waste cleanup law.

"I want them to do a chemical analysis to determine if there is enough toxic residue to qualify it as a toxic pit," said Katz, who [illegible] the cleanup law. "I want to see that the law I wrote is enforced."

Katz said a preliminary finding by the California Regional Water Quality Control Board's staff that

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Katz wants state to test soil at Rockwell's field laboratory

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Rockwell violated an earlier law when it dumped wastewater into the one-acre Old Sodium Burn Pit in the 1970s prompted his call to determine whether contamination levels still are so high that a permit is required under his 1984 Toxic Pits Cleanup Act.

"The information raises a question whether the burn pit is a toxic pit under the act," Katz said, adding that the law required companies to report toxic pits by Jan. 1, 1988 or face a maximum $10,000 a day fine per violation.

The accusation that wastes were discharged into the pit without a permit was contained in a report of violations sent to the company's Rocketdyne Division on Aug. 11 by the state Department of Health Services' toxics division.

Pat Coulter, spokesman for Rocketdyne, the Rockwell division which operates the facility in the hills between Simi Valley and Chatsworth, said the company was unaware of Katz's request and had no comment.

He said Rocketdyne is preparing an answer to the 14 violations of federal and state hazardous waste laws listed by Toxic Substances Control Division officials following a three-day June inspection of the [illegible]-acre lab.

He said the response to the health department will be made public within about a week. Company officials have said Rocketdyne has complied with all laws requiring notification of regulatory agencies.

[illegible] Agency released a preliminary report Wednesday that criticized Rocketdyne's monitoring program as inadequate and unable to guarantee contamination will not spread into surrounding communities.

Rich Vaille, EPA assistant director for toxics in San Francisco, said federal and state regulatory agencies are looking at a number of legal methods to compel the company and DOE to clean up the Sodium Burn Pit, which was unknown to the EPA and state regulators who oversee hazardous waste pits prior to the DOE survey.

> "The question it raises is were they only in compliance where they wanted to be, or were they hiding under a DOE shield."
>
> — Richard Katz
> Assemblyman, D-Sepulveda

"The Sodium Burn Pit will be cleaned up under some sort of corrective action," Vaille said. "The actual mechanism is going to be determined. They exist, so that's not the question. There's no question that the authority exists to do it."

According to the DOE survey, the Sodium Burn Pit was used from the early 1960s through 1978 for disposal of chemical waste, including solvents, metals and some radioactive wastes. Company tests in 1987 revealed high levels of toxic solvents and low levels of radioactive cesium-137 in the pit.

Ross said that during a July field inspection of the burn pit he was told by a company official that waste water stored in a tank had been dumped into the pit, but that the practice was stopped a number of years ago.

However, Ross said that he saw [illegible] in the pit during the inspection, and wants more details from the company to determine whether it was used recently in violation of new, and stricter, hazardous waste disposal laws.

Hank Yacoub, a water quality board engineer who began a ground water contamination investigation at the lab in 1983, said state officials responsible for the ground water work never were provided a complete description of the Sodium Burn Pit by the company or DOE.

"They didn't report it as a waste pond or as a TPCA (Toxic Pits Cleanup Act) pond," Yacoub said, adding the nuclear research site was [illegible] to state regulators before the May disclosures.

"It was pretty much kept in the dark as far as talking about it, except for a few spills," Yacoub said.

agencies.

The Daily News reported on May 14 that a U.S. Department of Energy survey disclosed toxic chemical and radioactive contamination at the 290-acre nuclear portion of the lab. The report said there was no immediate health threat, but said more monitoring was needed to determine the extent of the contamination.

Katz said contamination problems traced back to possible legal violations nearly 20 years ago cast doubt on the company which runs the nuclear test site with the U.S. Department of Energy.

"So question it raises is were they really in compliance where they wanted to be, or were they hiding under a DOE shield," Katz said. "The question is why did they treat this problem differently than pits outside the nuclear area, which were reported?"

Cowet said Katz has a standing invitation to visit the facility three miles west of Chatsworth to assess the environmental situation.

Regional Water Quality Control Board senior engineer Jim Ross said the week he believes that the company discharged waste wash water from its operation into the pit without a permit. The pit is still contaminated with toxic chemical and radioactive materials.

"We find no evidence they filed for such permit, or that we issued anything," Ross said. "Laws under Porter-Cologne (the state water quality control act) would have required them to file on a pond like that."

Ross said that the board will decide what action to take after it gets the results of ground water and soil tests later this month. The violation under the Porter Cologne Water Quality Control Act is a misdemeanor with a maximum court-imposed fine of $10,000 a day, officials said.

The U.S. Environmental Protec-

9/3/89

DOE team lacked key report

Inspectors did not receive Rockwell field lab contamination results

By TONY KNIGHT
Daily News Staff Writer

Rockwell International's Rocketdyne division did not provide a report on the extent of radioactive contaminating at its Santa Susana Field Laboratory when all such information was requested by a U.S. Department of Energy survey team last year, the Daily News has learned.

"They didn't tell us," said James D. Werner, a former member of the DOE survey team that inspected the facility in May 1988. "I asked them over and over and over again, I cannot tell you how many times. 'Are there any hitherto (contaminated) areas that you know about?' And the answer was, 'I don't know.'"

Rocketdyne has said repeatedly that it provided appropriate reports and information when required by governmental agencies.

Robert J. Tuttle, Rocketdyne's chief of radiation health and safety, was unable to explain on Friday why the report, which carried his signature of approval when it was sent to a branch of the DOE in 1983, was not provided on request to the governmental survey team in 1988.

"This particular report may have been overlooked in the gathering of our reports for them," Tuttle said. "The report certainly was not deliberately withheld from them."

The DOE and Rocketdyne have said the site, in the Simi Hills three miles west of Chatsworth, poses no immediate threat to the public health. The DOE also has said that previous testing has not been adequate to determine the extent of the contamination and its consequences for the future, and that different and additional testing is needed.

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EPA inspectors did not receive Rockwell contamination report

ROCKWELL / From Page 1

The survey conducted by Werner's team for the DOE found radioactive and toxic contamination at the Santa Susana site, and those results were reported by the Daily News on May 14. The newspaper subsequently learned of an internal Rocketdyne report — the report that was not supplied to Werner's DOE survey team — regarding the extent of radioactive contamination at Santa Susana and asked for a copy.

A Rocketdyne spokesman said the company would not make the report public, and referred questions to the DOE. The DOE did not agree to provide it until after the Daily News obtained a copy elsewhere.

A September 1987 brochure that was sent to DOE field offices and nuclear contractors, including Rocketdyne, outlined the purpose of the DOE environmental survey and their responsibilities in assisting the survey team.

"Current management has the obligation to be forthcoming and to assist in identifying environmental problems," the brochure states. It says the "fundamental goal" of the survey is "to view all of DOE's environmental problems through the 'same set of eyes' for the purpose of prioritization."

But the survey team was not given the July 1983 company report on problems at the Radioactive Materials Disposal Facility (RMDF) at Santa Susana.

The problems identified in the 1983 report were not discussed in the DOE report completed in February 1989 or in a July 31 U.S. Environmental Protection Agency report to Rep. Elton Gallegly, R-Simi Valley, outlining environmental problems at Santa Susana.

The 1983 report, "Interim Decommissioning Plan for RMDF," shows six major areas of surface contamination, radioactive contamination in the rain runoff system that leads to Bell Canyon and contamination in an underground sump that could have reached the ground water.

Terry Vaeth, acting manager of the DOE's San Francisco office, said Friday that the disposal facility report should have been submitted by Rocketdyne, the Rockwell division...

RECENT DEVELOPMENTS AT ROCKWELL

Here is a chronology of key events involving Rockwell International's Santa Susana Field Laboratory since the disclosure 16 weeks ago of radioactive and chemical contamination at the facility:

- May 14: The Daily News reports that a 1988 environmental survey of Santa Susana by the U.S. Department of Energy found significant levels of radioactive and chemical contamination at the 290-acre nuclear research portion of the lab.
- May 16: Rep. Elton Gallegly, R-Simi Valley, demands a copy of the survey from DOE officials. The Daily News reports that Rockwell's Rocketdyne Division, which operates the lab, has been cited for 58 violations by the Nuclear Regulatory Commission since 1976. The NRC says the majority of the citations were common among nuclear facilities.
- May 17: The DOE gives Gallegly a copy of the survey report, and he releases it to the public. The document describes 10 areas of actual or potential contamination, concludes there is no immediate health hazard, but criticizes monitoring and calls for additional tests to determine the extent and nature of contamination.
- May 18: U.S. Environmental Protection Agency officials say they did not know the extent of radioactive work at Santa Susana when they decided in 1987 not to designate the facility a Superfund cleanup site.
- May 19: State health officials say they were unaware of radioactive contamination at Santa Susana, and launch an inquiry.
- May 21: Ventura County air quality and fire officials say Rocketdyne is 17 months behind in completing a state-mandated inventory of toxic chemicals and radioactive materials.
- May 23: The Daily News reports that a DOE study in December estimated it would cost at least $66 million over 20 years to clean up nuclear contamination at Santa Susana.
- May 26: Rocketdyne officials agree to meet with regulatory agencies at the lab to discuss operations there.
- May 27: Rocketdyne President Richard Schwartz announces the company will drill 17 new ground-water monitoring wells.
- May 31: James D. Werner, an environmental engineer who worked on the 1988 DOE survey, is told by Rocketdyne that he can't attend the meeting between company and regulatory officials at the lab. Company officials also announce that the public and press will be barred from the meeting.
- June 1: State Sen. Ed Davis, R-Northridge, urges Rocketdyne to open the meeting. Company officials refuse, saying it would inhibit the discussion.
- June 6: Rocketdyne officials meet with regulatory and government officials in a closed session at the lab. The EPA fails to send a representative.
- June 9: Gallegly criticizes the EPA for not sending a representative to the meeting at the lab.
- June 10: Under pressure from Gallegly, EPA officials agree to take an active role in studying the facility.
- June 11: Company officials say cleanup has been ongoing since 1974, and that only the most difficult contamination problems remain from 40 years of nuclear research.
- June 16: Rocketdyne officials acknowledge that tests in September turned up previously unknown areas of radioactive contamination.
- June 20: The company announces it will dig six new monitoring wells at the Canoga Park plant several miles from Santa Susana, where a small nuclear reactor was operated until the early 1980s.
- June 22: The EPA, under strong pressure from Gallegly, agrees to lead a full-scale review of contamination at Santa Susana.
- June 28: Acknowledging major flaws in the government's oversight of nuclear programs, Energy Secretary James D. Watkins pledges to "chart a new course" to protect the environment and proposes a 10-point cleanup plan for ...

principal source of potential radiation dose to the public from SSFL activities."

The environmental team determined that excess penetrating radiation was coming from Building 75 on the site where packaged wastes are stored prior to shipment, and the company immediately added extra steel shielding to the building.

But the report does not discuss the environmental contamination at the disposal facility that is identified in the July 1983 report.

The report identifies these previously undisclosed problems:

- High levels of contamination at an underground concrete sump and adjacent asphalt and subsoil where contamination could have reached the ground water through cracks in the sump.
- Low levels of contamination in a concrete channel and pond that carry rain runoff from the disposal facility to a drainage system leading to Bell Creek. The report said, and officials confirmed, that excess radiation levels have not been detected in the water eventually released to the creek, which runs through the gated Bell Canyon community.
- Extensive problems with soil contamination from past spills, including four areas where contamination has occurred outside the disposal facility perimeter fence.

Tuttle said Friday that the radiation levels of the contamination do not present a health threat.

"It is not at all dangerous," Tuttle said. "The radioactive material is relatively low level. Most of the radioactive material is below perhaps three or four inches of asphalt."

He said all of the contaminated areas need to be cleaned up, but he said some cleanup already has been performed. He would not detail the work that already has been done.

The company has listed nine other facilities that need to be decommissioned or decontaminated on the Santa Susana site.

Tuttle and DOE officials said they did not know when the disposal facility would be cleaned up. But they said it would be the last facility at Santa Susana to be decontaminated because waste from all other decontamination jobs must be processed there.

"I don't think there is a rigid

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the DOE audit team. He said the company not doing so was apparently an oversight.

"I think there are other reports for other facilities up there just like that one," Voith said. "It's like searching for your old relatives. From time to time one will pop up that you didn't know anything about."

DOE headquarters staff refused to allow Larry Weiner, the chief of the audit team, to be interviewed. But a spokesman said the report should have been provided to the team.

"I don't know why they weren't (told)," said Will Callicott, DOE spokesman in Washington. "They should have been. But you know it's hindsight."

A Rocketdyne spokesman was informed Friday afternoon of the subject of this article, and he was asked to invite Rocketdyne President Richard Schwartz to comment. The spokesman later said that he had given the message to Schwartz, and that Schwartz declined to comment.

Weiner, now a consultant with the Washington, D.C.-based Natural Resources Defense Council, which is highly critical of DOE nuclear operations, said he believes that neither the company nor the DOE's San Francisco field office was willing to reveal the total picture of environmental contamination at the mountain laboratory to the team from headquarters.

"The fact that they hid it from their own management at headquarters tends to make them look like an outlaw facility within the DOE complex," Weiner said. "(Energy) Secretary (James D.) Watkins at least is talking about getting the facilities to comply with the law and clean up, but it sounds like his message isn't being heard on that level."

Watkins presented a major new initiative to clean up DOE facilities in June, criticizing what he termed a "culture of secrecy" in the department and calling for a new set of principles that places environmental safety and public health ahead of production quotas.

Richard Voith, who prepared the EPA report for Gallegly, said last week he was unaware of the disposal facility contamination problems. He said he has asked the DOE for a complete audit of contamination at the site.

"My only comment is that I think one audit will get all that information if there is any more information," Voith said. "The bottom line is that we want a complete audit of all possible contamination. We'll want assurances that it is complete."

June 29: EPA officials announce they are reassessing the facility to determine whether it should be designated a federal Superfund cleanup site.

July 1: State and federal officials agree to form a task force, headed by the EPA, that will develop a complete blueprint of contamination and determine the responsibility of each agency in cleaning up the site.

July 7: Company documents show that radioactive "hot spots" up to 300 times above a natural occurring levels were found the year before in soil near a septic system leach field above Simi Valley.

July 19: Rocketdyne begins drilling 17 new monitoring wells in a $200,000 effort to further assess potential contamination.

Aug. 2: The EPA reports that environmental monitoring has been inadequate to determine if contamination is migrating off site. The report urges more monitoring but concludes there is no immediate threat.

Aug. 3: The Energy Department, in a draft report on cleaning up facilities nationwide, identifies certain contamination areas at the facility as urgent Priority One projects that could cause "near term adverse impacts" to the public health and environment if not cleaned up. The report asks for $700 million from Congress by 1995 for cleanup at the lab.

Aug. 4: Gallegly demands a written report from the DOE explaining apparent contradictions in contamination assessments at Santa Susana.

Aug. 5: State toxics officials announce they are investigating whether Rocketdyne violated the law by not reporting a pit contaminated with radioactivity and chemicals at Santa Susana.

Aug. 12: The Energy Department, in a three-paragraph report to Gallegly, says Santa Susana poses no threat to the surrounding community, despite the cleanup plan designation of eight areas at the site as urgent Priority One projects.

Aug. 13: Rocketdyne officials acknowledge that, two years ahead of schedule, they are digging up and removing soil that has been contaminated with radiation for more than a quarter century.

Aug. 17: State toxics officials ask the DOE to explain why Rocketdyne rejected their recommendation to dig a monitoring well 50 feet from a drainage pond that may be contaminated, and instead put the well 200 feet from the pond.

Aug. 20: State health officials accuse Rocketdyne of violating 14 federal and state hazardous waste laws at Santa Susana.

Aug. 27: State health officials propose new environmental tests at a dozen federal nuclear sites in California, including Santa Susana, within the next two months.

Aug. 31: A new EPA report concludes that Rocketdyne's environmental monitoring is inadequate and unable to guarantee that contamination won't spread to surrounding communities. The report says company officials have little idea where radiation has been "inadvertently or intentionally" dumped at the site over several decades.

Sept. 1: Assemblyman Richard Katz, D-Sepulveda, orders state toxic officials to test a hazardous waste dump at Santa Susana to determine whether the company is violating state toxic waste cleanup laws.

Gallegly expects the EPA to compile a complete profile of contamination at the site, John Frith, the congressman's spokesman, said Friday.

"If it turns out in the long run that any agency, public or private, is dragging its feet or not cooperating, the congressman will intervene to make sure that the audit is completed," Frith said.

This is the second evidence of soil contamination at the site that was not reported to the DOE survey team. EPA inspectors "bumped into" excavation of 40 cubic yards of contaminated soil at Building 64 during a mid-July inspection, Voith said.

He called the incident "disconcerting."

Company officials have said in the past that they didn't have to report all contamination problems to the DOE audit team because they had reported them to the DOE's Surplus Facilities Management Program, a national program to mothball and decontaminate old nuclear research facilities.

The report outlining the disposal facility contamination was submitted to the Surplus Facilities Management Program in 1983.

"These were proposals to the Surplus Facilities Management Program that we wanted money to clean these facilities up," said Voith. "Other sites got priority over the Santa Susana Field Lab, and we were unable to do anything but to make sure that the radiation doesn't go off site."

The disposal facility at Santa Susana is a nine-building complex at which nuclear wastes are processed and packaged for shipment to nuclear waste burial sites in other states. The DOE environmental audit identified the facility as "the structure for burning rats," Voith said. "The (contamination areas) that you had on the (disposal facility) map are not hazardous to man or beast.

Tuttle said the contamination on the drainage channel is coated with a material to keep it from migrating and to prevent it from being washed into the drainage pond.

The pond itself has low levels of radioactivity on the silt on the bottom, but this does not present an environmental threat to Bell Creek, Tuttle said.

"There are several stages of monitoring," he said. "We prevent a release of radioactive material to Bell Canyon by several control measures."

Officials with the state Regional Water Quality Control Board, which regulates the Bell Creek discharges, said the company never has violated discharge requirements.

However, Jim Ross, principal engineer for the board, said last month that he will require that the company include a description of the disposal facility drainage pond and the testing schedule and results in the renewal of its discharge permit, which currently is pending before the board.

An EPA memo released last week said a preliminary analysis found Rocketdyne's radioactive test procedures for soil and water inadequate and outdated. The memo said problems with the tests meant that the company was unable to guarantee that past contamination has not spread off-site.

The July 1983 report describes a "highly contaminated" 150-gallon tank and concrete sump.

"Surveillance activities this fiscal year indicate that the concrete sump could possibly have cracks and could have communication with ground water," the report states.

Tuttle said Friday that he does not think that radiation from the concrete sump has leaked into the ground water, although he signed the cover of the 1983 report indicating his approval.

"I think that's speculative, and I don't agree with the speculation," he said of the possibility of ground water contamination.

The 1983 report does not include any radiation monitoring levels. However, a company consultant, who did soil monitoring of the 10 actual or potential areas of contamination uncovered by the DOE survey team, accidentally sampled some of the disposal facility soil contamination and found levels of up to 4,900 picocuries per gram, or 260 times over background levels.

Daily News staff writer Beth Barrett contributed to this story.

Rockwell lab report sought by Beilenson

By MARK BARROIL
Staff Writer

Rep. Anthony Beilenson has asked federal regulatory officials to provide him with a report on the extent and nature of contamination at Rockwell International's Santa Susana Field Laboratory.

"I share the concerns of several of my constituents regarding the threat of contamination and health risks caused by radioactive and toxic waste at the facility," Beilenson, D-Tarzana, said in letters to the U.S. Environmental Protection Agency and to Energy Secretary James D. Watkins.

Disclosure of contamination at the facility "has left residents very fearful," Beilenson said, asking a series of pointed questions about oversight and cleanup at the nuclear research lab between Chatsworth and Simi Valley.

Al Zemaitis, spokesman for the EPA's regional office in San Francisco, said the agency is pre-

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Beilenson seeking federal report on Rockwell facility

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paring a response that could be completed and sent to Beilenson as early as next week.

Department of Energy officials in Washington could not confirm late Wednesday whether Watkins had received the letter or if a response was being prepared.

Beilenson is the second member of Congress to express formal concern over contamination at the facility, operated by Rockwell's Rocketdyne Division.

Rep. Elton Gallegly, R-Simi Valley, has pressured company and government officials over the past four months for complete disclosure of the extent of contamination at the lab and the potential for risks to people who live nearby.

Gallegly's congressional district includes both the lab itself and the closest residential communities. Beilenson said residents of his adjoining district, some of whom live only a few miles from the facility, are equally concerned.

The Daily News reported May 14 that a DOE environmental survey found chemical contamination of soil and ground water and radioactive soil contamination at the 290-acre nuclear research portion of the 2,600-acre field laboratory.

The survey said there was no evidence of an immediate health threat, but said further investigation was needed to determine the extent of contamination.

Last week, an internal EPA report obtained by the Daily News said Rocketdyne's environmental monitoring program at the site is fragile and unable to guarantee the location and extent of contamination or that it could not move off-site.

In his letter to the EPA, Beilenson said he is "disturbed" that the agency "had virtually no role in monitoring this facility" until recently, when Gallegly pressured EPA officials to become involved.

He said "conflicting conclusions" about the facility "led us to believe the actual risk to human health from DOE's activities at Santa Susana has not yet been determined which, understandably, has left residents very fearful."

The Tarzana Democrat spelled out a series of specific questions for each agency to answer, including:

- Why was the EPA unaware of nuclear activities at the lab in 1987, when it was being considered for designation as a Superfund site?
- At what point should the EPA have been notified of the nuclear work, and has the facility complied with "all pertinent federal environmental laws and regulations"?
- If the facility has not complied with all applicable laws, on what basis was it granted an exemption?
- What are the EPA's plans for monitoring and assessing nuclear operations at the site in the future, and will the agency conduct an in-depth investigation under the Comprehensive Environmental Response, Compensation and Liability Act?
- How adequate was the data the DOE used to support its environmental and safety assessments for the plant, and what is the EPA's position on the energy department's plans for cleaning up the facility?
- Has the DOE fully characterized the type and extent of ground water contamination at the plant, and if not, what further investigation is planned?
- What plans does the DOE have to ensure that clean-up at the facility is done with proper oversight from regulatory officials?

Nuclear operations at the facility over the past four decades have been winding down since the early 1980s, but Rocketdyne maintains a license to process special nuclear materials at the plant.

Put an administrative law judge has scheduled a Sept. 29 hearing to consider whether three Valley residents can legally challenge the company's application to renew the license.

"It will be a procedural conference to hear arguments from the (residents)," Administrative Law Judge Peter B. Bloch said Wednesday.

"Based on that, I'll make a decision whether or not they have legal status to contest the (license) renewal," he said.

Rocketdyne applied to the Nuclear Regulatory Commission in May for a 10-year extension of its license to possess up to 11 pounds of enriched uranium and 4.4 pounds of plutonium at the lab.

The current license expired on June 30 but will remain in effect while the application for renewal is being processed, NRC officials said.

The residents are seeking permission to formally intervene in Rockwell's application for renewal of its nuclear materials license.

In their petition to the NRC, they said reports of contamination at the facility have convinced them they could be at risk of nuclear research exposures there.

The petitions were filed by Estelle Lit, chairwoman of the San Fernando Valley chapter of the United Nations Organization; Jerome Raskins, president of the Northridge Civic Association; and Jon Scott, a resident of Bell Canyon.

Under the law, they cannot legally oppose the application unless they show its approval would have a direct impact on them.

Company officials declined comment Wednesday on the residents' concerns and their attempt to block the licensing renewal.

"We will support the judge completely in whatever he decides to do," Rocketdyne spokesman Pat Cowler said.

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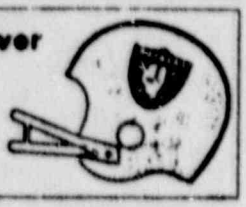
against Mobil for oil pipeline rupture/**NEWS, Pg. 4**

ily News

SAN FERNANDO AND NEIGHBORING VALLEY

25 CENTS

Starting over
Few Raiders left from last winning year
SPORTS



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Freeway by 20 per-

/ Pg. 10

Low-level radiation detected in water

Officials: Rockwell lab finding poses no health risk

By BETH BARRETT
and TONY KNIGHT
Daily News Staff Writers

New tests by the U.S. Environmental Protection Agency found low levels of radioactive hydrogen in the ground water beneath Rockwell International's Santa Susana Field Laboratory in the Simi Hills, officials said Friday.

Company, federal and state officials said the low concentrations of tritium, a radioactive form of hydrogen, pose no health risk to employees or the public.

But they added that the EPA's tests conducted in July mark the first time that radioactivity from the company's nuclear operations has been detected in ground water at the 290-acre facility and provide the first evidence that radioactive contamination has traveled from nuclear operations at the site to ground water.

Since the Daily News disclosed May 14 that a Department of Energy survey had found radioactive and toxic contamination at the facility in the hills between Chatsworth and Simi Valley, officials of the DOE and Rockwell's Rocketdyne Division, which operates Santa Susana, have insisted there was no evidence that man-made radioac-

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DAILY NEWS

Tritium found in lab's ground water

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tivity had contaminated ground water.

"The noteworthy result (of the EPA tests) was the presence of the tritium in the ground water," said Richard Nolan, DOE assistant manager in San Francisco. "This is, in fact, the first indication — although it's at low levels and within perfectly safe limits — of radioactive materials in the ground water at the site."

Nolan said the new information will force a revision of testing methods to include tritium sampling, and acceleration of a program to sample 17 new ground water monitoring wells.

"We will make the appropriate changes," he said. "We will analyze (new) samples in as short a time frame as feasible."

Tritium was measured at 1,890 picocuries per liter in a sample taken from the vicinity of Building 59 at the field laboratory, where a prototype of a space-based nuclear reactor was tested in the mid-1960s.

The reactor was removed in 1971, but the contaminated vessel that contained the reactor remains.

EPA spokesman Lou Jefferson said agency officials would meet Monday with representatives from the company and the DOE to discuss the test results.

"We feel that there is definitely no danger to public health," Jefferson said. "It's the kind of thing that our people thought they might to look for. Now it's not dangerous, but there is some there."

David L. Speed, health physicist with the state Department of Health Services' environmental branch, said state standards allow up to 3 million picocuries of tritium in water released to unrestricted areas, and up to 20,000 picocuries per liter in drinking water.

"Tritium is one of the more innocuous radionuclides," Speed said. "It doesn't do a whole lot of biological damage."

Robert J. Tuttle, chief of radiation health and safety for the company's Rocketdyne division, said Friday that he believes that the contamination came from operation of a nuclear reactor at Building 59.

"(It) comes from concrete and steel surrounding the reactor well," Tuttle said.

The EPA criticized the company in a July 28 report for never testing for tritium in soil or water. The isotope moves rapidly through the environment and is a good indicator of whether radioactive contamination is spreading, the EPA said.

The test samples that revealed the tritium were taken by EPA investigators during a July 13 inspection. It was the first time that tests had been run for tritium in the ground water near Building 59, where the company has battled a problem with ground water leaking into the basement since 1981.

Tuttle said the company never tested for tritium because the quantities used at the lab were small and were not considered a threat to the environment, including the ground water. He said tritium was used or created at up to six sites.

Tuttle defended earlier company statements that the nuclear operations had not contaminated the ground water at the lab.

"We have been absolutely candid," he said. "We've always said the analysis we performed showed no radioactive material of our production in the ground water. The analysis didn't address tritium."

The DOE environmental survey, which was conducted last year and released after the Daily News disclosed its contents four months ago, reported there was toxic contamination of soil and ground water, radioactive contamination of soil and bedrock and the potential for radioactive pollution of ground water.

The DOE report said there was no immediate health hazard, but criticized monitoring and said more tests were needed to determine the extent of the contamination.

The EPA, which agreed to assume oversight of the Santa Susana cleanup in June at the urging of Rep. Elton Gallegly, R-Simi Valley, released a report July 31 calling for more extensive testing of ground water and airborne radioactive particles at the nuclear research site.

EPA officials said Friday that they were not ready to release the complete results of their July 13 water tests.

But the company issued a statement on Friday announcing the tritium results.

"The amount of tritium detected in the Building 59 sample is well below all limits used to determine safe levels for tritium in ground water," the company said.

"The finding by the EPA again confirms that levels of radiation detected at the SSFL are minor and pose no threat to our employees or to our neighbors," it said.

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Rockwell lab to get new scrutiny

Company consents to variety of procedures to assess safety of Simi Hills facility

By BETH BARRETT
Daily News Staff Writer

SAN FRANCISCO — Rockwell International agreed Monday to undertake a series of new steps to monitor radioactive contamination at the Santa Susana Field Laboratory in the Simi Hills, federal officials said.

The company's Rocketdyne Division will begin testing vegetation and animals near the facility for exposure to radiation, and will implement tests for radioactive hydrogen in monitoring wells at the site, the Environmental Protection Agency officials said.

Rocketdyne also will submit to a comprehensive review by outside scientists of the company's environmental monitoring program and to an overhaul of the program if necessary, officials said.

"They have agreed to a peer review and to implement any final recommendations (by the review teams)," said Richard Vasile, assistant regional toxics director for the U.S. Environmental Protection Agency.

The agreement was reached during a closed-door meeting Monday at EPA regional headquarters in San Francisco.

Vasile said company officials also will provide more information about past spills at the lab between Simi Valley and Chatsworth.

"A lot of information needs to be collected, and they have agreed to do a better job," he said.

The Daily News reported May 14 that a DOE environmental survey found chemical contamination of soil and ground water and radioactive soil contamination within Area IV of the Santa Susana Field Laboratory. Area

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Rockwell agrees to new safety tests

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IV is a 290-acre nuclear research facility, operated under contract with the Energy Department at the 2,600-acre field laboratory.

The DOE survey said there was no evidence of an immediate health threat, but said further investigation was needed to determine the extent of contamination.

In the intervening four months, local residents and elected officials, including Rep. Elton Gallegly, R-Simi Valley, have pressed for complete disclosure of contamination at the lab and the potential for risk to people who live nearby.

Last last month, an internal EPA report, obtained by the Daily News, said Rocketdyne's environmental monitoring program at the site is flawed and unable to guarantee the location and extent of contamination or that it could not move off site.

The report led to Monday's meeting between officials from Rocketdyne, EPA and the DOE.

Gregg D. Dempsey, chief of the EPA's field studies branch and author of the July 20 report, said after the meeting that the peer review team will be selected soon from a list prepared by the company and approved by the EPA.

"It is a group of scientists respected in their field who run laboratories on a similar fashion in the United States," Dempsey said. "They will make a recommendation based on the site and the needs for (additional) monitoring."

Dempsey said the panel will arbitrate disagreements between Rocketdyne and EPA over methods for measuring and containing contamination.

Dempsey, whose report questioned the validity of Rocketdyne's environmental data, said company officials agreed to implement interim steps recommended in the report while the review team examines the overall program.

Rocketdyne will resume a vegetation sampling program that was discontinued in 1986 after an internal company review questioned the method used to measure radioactivity and recommended changes be made, he said.

Dempsey said the peer review team ultimately will determine which vegetation samples are a potential avenue for radioactivity to enter the food chain and therefore should be tested.

Similarly, he said company officials will get permits to begin sampling for radioactivity in animals killed by automobile traffic near the facility.

Dempsey's report criticized Rocketdyne for not testing "road kills," saying "part of a good environmental program involves checking other pathways through which radionuclides might travel. One of these is through meat samples obtained from feral goats."

Company officials also said they would study whether a meteorological tower should be placed at the facility to measure air emissions, rather than relying on a tower at the Burbank-Pasadena-Glendale Airport.

Dempsey said the tower might not be necessary because measurements from the airport tower show insignificant levels of radiological emissions.

"They will study it closer," he said, adding that the peer review team also would consider whether a closer monitoring tower is needed.

Dempsey said he took a number of soil and water samples during his July 13 field inspection of the facility but that he won't complete his analysis of those tests for several weeks.

He said low levels of radioactive material from the company's nuclear operations were found in only one sample. Radioactive hydrogen, or tritium, was found at low levels in ground waters near a building used to test a nuclear reactor in the mid-1960s.

Dempsey said finding of tritium around Building 59 does not change his overall assessment that the site does not pose a public health hazard. He also said there is no evidence to suggest that any radioactive material has migrated from the site.

However, he added Rocketdyne officials agreed to begin their first testing program for tritium in new monitoring wells drilled on the site, as well as in existing off-site wells.

Apr 13, 089

'83 Rockwell plan cited radiation risks

By BETH BARRETT
and MARK BARNHOLL
Daily News Staff Writers

Rockwell International officials knew at least six years ago that radioactive contamination could spread from the Santa Susana Field Laboratory to surrounding areas, a company document obtained Tuesday shows.

The Long Range Plan for Decommissioning Surplus Facilities, completed by Rockwell's Rocketdyne Division in 1983, summarized potential risks from contamination at five buildings and four support areas within the facility.

The plan, released by the company in response to Daily News requests, urged rapid dismantling of several of the facilities to reduce the risk from contamination and eliminate the potential for unfavorable public and political reaction.

Only one of the buildings, an experimental laboratory associated with the nuclear reactor in the 1960s, has been completely decontaminated so far, according to more recent documents prepared by Rocketdyne in June for state regulatory officials.

Officials with the company's

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Disclosure was major concern

By MARK BARNHOLL
and BETH BARRETT
Daily News Staff Writers

Rockwell International officials considered public disclosure of radioactive contamination at the Santa Susana Field Laboratory one of the biggest potential risks in assessing and cleaning up the problem, an internal document obtained Tuesday shows.

In a 1983 long-range cleanup plan, Rockwell's Rocketdyne division, which runs the facility in the hills between Chatsworth and Simi Valley, rated the risks from contamination at the nuclear research facility

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Rockwell knew of radiation risks, report indicates

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Rocketdyne Division declined to discuss the report Tuesday.

Environmental Protection Agency tests released last week found for the first time that low levels of radioactivity traceable to Santa Susana were in the ground water beneath the facility. Officials of the company and the Department of Energy, and federal and state health agencies say there is no imminent health risk to the public.

Richard Nolan, DOE assistant manager in San Francisco, said Tuesday that cleanup work conducted in recent years has reduced the potential health and environmental risks identified in 1983.

The Daily News reported May 14 that a U.S. Department of Energy environmental survey found toxic chemical and radioactive pollution at the lab, which is situated in the hills between Simi Valley and Chatsworth. There is a population of 444,753 within a 10-mile radius of the lab three miles west of Chatsworth, according to the company's 1987 Environmental Monitoring Report.

Federal and state regulators who monitor contamination elsewhere at the 2,600-acre lab said they were not aware of the extent of radioactive contamination in the 290-acre nuclear test area.

Company and DOE officials repeatedly have said the contamination poses no health risk to the public, and a July survey by the U.S. Environmental Protection Agency confirmed there was no imminent health threat.

Company officials have also said there is no evidence that radioactive contamination has moved outside the lab's boundaries, although Rocketdyne agreed Monday to conduct more extensive testing after the EPA criticized the company's environmental monitoring program.

The 1983 report estimates a variety of potential health and environmental risks at the lab, ranging from "medium" to "possible high" if cleanup at the facility were delayed.

It also determined that additional surveys were necessary to determine the extent of radioactivity and the risks in certain areas.

One area at the site that remains contaminated today, Building 59, was rated as a medium health risk in 1984 and given the top priority for decontamination. The report recommended that Building 59, which housed an experimental reactor in the 1960s, be completely cleaned up by 1989.

The report rated the potential risk of workers being exposed to radiation in Building 59 as seven out of 10, and said levels of radioactive cobalt were so high in the building's reactor vault that workers could not safely enter the building.

The ratings were made by a Rocketdyne panel to evaluate the relative risk on a 10-point scale.

Nolan said health hazards at Building 59 have since been reduced through ongoing cleanup work. The reactor itself was removed from the building's basement nearly two decades ago, and contaminated sand has been hauled out more recently, he said.

"There's not a medium health risk now," Nolan said. "I know some (contaminated) steel and concrete remain, but it is fundamentally cleaned up."

Company officials have estimated the cost of cleaning up Building 59 at $4 million. Until the cleanup is completed, Rocketdyne has been forced to pump out ground water seeping into the contaminated basement.

The 1983 report stated that the chance of contamination spreading from Building 59 to ground water outside the building was high, rating the potential risk at 9 on a scale of 10.

"Recent water intrusion also indicates the need for near-term dismantlement," the report said.

Rocketdyne officials announced last week that the EPA found traces of radioactive hydrogen in ground water at Santa Susana, and attributed it to operations in Building 59.

It was the first time radioactive contamination has traveled into the ground water from nuclear operations at the site.

It also was the first time tests had been run for tritium near Building 59, where the company has battled a problem with ground water leaking into the basement since 1983.

The EPA, which agreed to assume oversight of the Santa Susana cleanup in June at the urging of Rep. Elton Gallegly, R-Simi Valley, criticized the company in a July 28 report for never testing for tritium, a radioactive form of hydrogen, in soil or water. The isotope moves rapidly through the environment, and is a good indicator of whether radioactive contamination is spreading, the EPA said.

Company officials said the company never tested for tritium because the quantities used at the lab were small and not considered a threat to the environment, including the ground water.

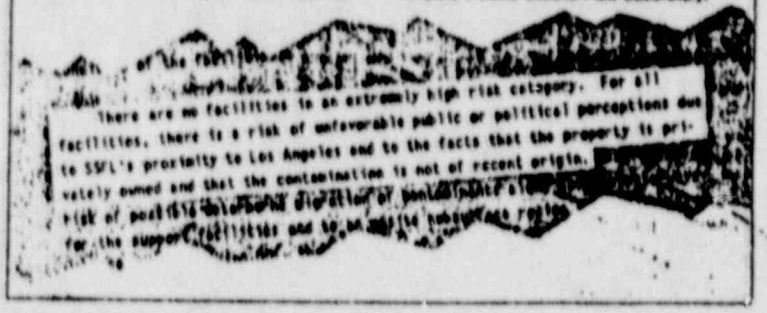
The 1983 decommissioning plan also considered that contamination could spread off the site through waterways. In particular, the risk assessment listed the potential for off-site contamination from "surplus facilities support" as seven on the scale of 10.

The surplus facilities support areas included a sodium burn pit, storage yards, drainage areas, and old sanitary sewage systems.

Nolan said the DOE has found no evidence there is potential for off-site migration of radioactive materials.

WHAT THE ROCKWELL DOCUMENT SAID:

Here is an excerpt of Rockwell International's 1983 report summarizing potential risks from five buildings and four support areas at the company's Santa Susana Field Laboratory:



...there are no facilities in an extremely high risk category. For all facilities, there is a risk of unfavorable public or political perceptions due to SSFL's proximity to Los Angeles and to the facts that the property is privately owned and that the contamination is not of recent origin.

Public disclosure was concern for company officials, study says

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to workers and the nearby communities, as well as other factors — including political repercussions of public disclosure of the problem.

"There is a risk of unfavorable public or political perceptions due to SSFL's proximity to Los Angeles, and to the facts that the property is privately owned and that the contamination is not of recent origin," the study concluded.

The study recommended a timetable for dismantling most of the facilities by 1989, declaring that "unfavorable perceptions and risks (would be) greatly reduced by following the abandonment option."

Of the nine contaminated "surplus facilities" that were assessed in the report, only one had been completely decontaminated and released for unrestricted use as of three months ago.

Rocketdyne officials, who released a copy of the report Tuesday evening in response to Daily News requests, would not comment.

The company is preparing for a meeting Friday with a multi-agency task force, formed in June to study the extent and nature of contamination at Santa Susana, and to determine responsibility for cleaning it up, company spokesman Paul Sewell said.

"We're working hard ... to arrive at a mutually agreeable plan to verify the safety of the facility and areas that surround Santa Susana," Sewell said. "We believe the task force will provide the best assurance about the facility."

Larry Peterson, a senior engineer with the California Department of Health Services, on Tuesday questioned the company's examination of political risks from public disclosure of contamination.

"A risk assessment is supposed to address the threat to humans and the environment," Peterson said. "Humans are supposed to come first.

"(Examining) the risk of political exposure makes it look like it's not a risk assessment at all, but rather problems they are likely to encounter," he said.

Richard Nolan, assistant manager of the Department of Energy's San Francisco regional office, which oversees Rocketdyne's nuclear operations, also said the examination of political risks was unusual.

> *"We're working hard ... to arrive at a mutually agreeable plan to verify the safety of the facility and areas that surround Santa Susana."*
>
> — Paul Sewell
> Rocketdyne spokesman

"I'm not aware of a risk assessment that includes that as part of its process," Nolan said. "Obviously, it was a creature of what was felt necessary to do six years ago."

Rocketdyne and DOE officials have been under intense pressure the last four months to fully disclose the extent and nature of contamination at the facility.

The Daily News reported May 14 that a DOE environmental survey last year found chemical contamination of soil and ground water and radioactive soil contamination at the 290-acre nuclear research portion of the 2,600-acre field laboratory.

The survey said there was no evidence of an immediate health threat, but said further investigation was needed to determine the extent of contamination.

In the intervening four months, Rocketdyne officials have consistently maintained that they fully reported the extent of contamination to regulatory officials.

But the company agreed Monday to undertake a series of new steps to monitor radioactivity, after an EPA report said Rocketdyne's environmental monitoring program is flawed and unable to fully characterize the contamination or guarantee it will not spread off site.

The 1983 report shows that Rocketdyne officials were aware of radioactive contamination at a dozen areas at Santa Susana, and were concerned that it might spread both within the laboratory and outside its boundaries.

The plan assessed a dozen "surplus facilities" that were no longer in use but remained contaminated by radioactivity. Each posed some degree of health or safety risk, the study determined, but "no facilities (were) in an extremely high-risk category."

The report rated each potential risk on a scale of 0 to 10, with 0 signifying negligible risk and 10 the most serious risk.

"Meeting health and safety requirements is the item of highest priority ... (and) health and safety requirements are being met," the report stated.

Still, the report concluded, there would be potential safety risks throughout the facility until the contamination was cleaned [illegible] Each contaminated area was rated in 17 different risk categories, including safety, worker radiation exposure, potential for spreading both within and outside the lab, and risk from earthquake or torrential rains.

Also rated was the potential for "public and political concern" — which was among the highest-rated risk factors in the assessment.

For example, the potential for public and political concern rated an 8 out of 10 at areas that included a dump site known as the sodium burn pit.

The risk of political repercussions rated a 7 out of 10 at Building 59, where Rocketdyne conducted research on space-based nuclear reactors in the 1960s. Another contaminated building was rated at 5 out of 10, two others at 4 and another at 3.

In other categories, Building 59 rated among the highest for potential risks. The building rated a 9 out of 10 for potential on-site spread of contamination through the ground water, and a 4 for potential off-site ground water spread.

Building 59 was rated a 7 for potential radiation exposure to workers at the lab; a 7 for potential problems if an earthquake or torrential rains should strike; and a 5 for the structure's ability to provide long-term confinement for radioactivity.

"The categories, of course, vary in importance in relation to one another," the report noted. "These are not weighted, so the sum of index numbers for a (particular area) has no quantitative or absolute significance."

Supervisor: Rockwell tour was misleading

BY BETH BARRETT and MARK BARNHILL
Daily News Staff Writers

Ventura County supervisor said Wednesday that Rockwell International did not provide full details about radioactive contamination at the Santa Susana Field Laboratory nearly 10 years ago when officials were trying to determine if the facility posed a health risk.

Supervisor James Dougherty, whose district includes the nuclear research lab in the Simi Hills, said he and former supervisor Edwin Jones were given a tour of the facility in the early 1980s after expressing concern about its operations.

Dougherty said disclosures in the Daily News about longstanding radioactive and chemical contamination at the facility have led him to believe that company officials did not reveal the full extent of contamination at the time.

"We went up there with geiger counters," he said. "Now, with all these (disclosures of) potential problems, it appears it was not an accurate assessment. We walked

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DAILY NEWS

Rockwell's silence on risks assailed

ROCKWELL, From Page 1

all around with geiger counters and they didn't show anything."

Dougherty said company officials also appeared before the board of supervisors without disclosing the full extent of contamination problems at the field lab between Chatsworth and Simi Valley.

"They testified before the board — with experts and slide shows — that there was no more radioactive material (at the site) than you would find in normal background where people live," he said.

An internal company document, prepared in 1983 and disclosed Wednesday, shows that Rockwell officials considered public knowledge and the political reaction it could bring among the biggest potential risks in operating the field laboratory. The 1983 report was a long-range plan for cleaning up contaminated facilities no longer in use at the lab.

Rep. Elton Gallegly, R-Simi Valley, and leaders of two community groups critical of Santa Susana operations questioned the propriety of Rocketdyne's concerns with political repercussions that might come from public knowledge about the contamination at the facility.

"It is unfortunate that certain individuals who prepared this government report felt it was inappropriate to talk about 'publicly funded work because they were worried about what the public might think," said Gallegly, in a statement issued by press secretary John Frith.

The 1983 company document included an assessment of contamination at the Simi Hills nuclear research facility and rated the risks to workers and the nearby communities, as well as other factors — including political repercussions of public disclosure of the longtime contamination problem.

"There is a risk of unfavorable public or political perceptions due to SSFL's proximity to Los Angeles and to the facts that the property is privately owned and that the contamination is not of recent origin," the report concluded.

Dougherty said that it was "totally inappropriate" for the company's Rocketdyne division to weigh political risks from disclosure when considering potential health and safety concerns.

"They are supposed to be doing what's safe for the public, and their public relations problems shouldn't enter into it." Dougherty said. "My God, they're dealing with nuclear materials."

Rocketdyne spokesman Pat Coulter declined comment Wednesday on what company officials told the supervisors during their visit to the site in the early 1980s.

"I can't comment on (Dougherty's) recollection," Coulter said. "That was, what, seven or eight years ago? There's nobody here now who remembers exactly what was said at that time. It's just not something anyone can recall.

"But several years ago, a lot of what was being done up here was highly classified," he added. "Now that there are no classified programs, we can be a lot more forthcoming."

Coulter said that under no circumstances would Dougherty and Jones, or any other visitors to the site, have been taken to contaminated areas that would place them in jeopardy.

"We are absolutely confident that none of these elected officials would have gone in any area where there was concern," he said. "We have a very strict visitors' protocol, and unless there's a very specific reason to give someone an unescorted badge, everybody has an escort."

Gallegly, whose district includes Santa Susana, has pressed strongly over the past four months for full disclosure of contamination at the lab.

Frith said Gallegly is confident that company officials are "now being cooperative and forthcoming" with ongoing attempts to document and clean up contamination.

And until a full picture of the contamination emerges, he said, it would be inappropriate to place any blame for causing the contamination or for not disclosing its existence and not cleaning up the problem.

Company officials are scheduled to meet Friday with a multi-agency task force formed in June to study the extent and nature of contamination, and to determine responsibility for cleaning it up.

The Daily News reported May 14 that a DOE environmental survey last year found chemical contamination of soil and ground water, and radioactive soil contamination at the 290-acre nuclear research portion of the 2,600-acre field laboratory.

The survey said there was no evidence of an immediate health threat, but said further investigation was needed to determine the extent of contamination.

In the intervening four months, Rocketdyne officials have consistently maintained that they fully reported all contamination to regulatory officials.

But the company agreed this week to undertake a series of new steps to monitor radioactivity, after an EPA report said Rocketdyne's environmental monitoring program is flawed and unable to fully characterize the contamination or to guarantee it will not spread offsite.

The 1983 report shows that Rocketdyne officials were aware of radioactive contamination in at least nine "surplus facilities" in Santa Susana, and were concerned that it might spread beyond within the laboratory and outside its boundaries.

The plan urged rapid dismantling of several of the facilities to reduce the risk of contamination.

Only one of the nine areas mentioned in the plan has been completely cleaned up, according to more recent documents prepared by Rocketdyne in June for state regulatory officials.

The company has now acknowledged that low levels of radioactive hydrogen from one of the still-contaminated structures was found in ground water beneath the lab.

Los Angeles Times

9/16/89

VALLEY NEWS

Pollution Study at Rockwell Lab Begins

By MYRON LEVIN,
Times Staff Writer

U.S. Department of Energy officials Friday told a task force of environmental agencies that they have begun an environmental audit at the Santa Susana Field Laboratory to assure that all contaminated areas of the research complex west of Chatsworth have been identified.

At a meeting in Burbank of the task force on pollution problems at Santa Susana, DOE officials said their audit team also will develop a comprehensive plan covering long-term environmental monitoring and clean up needs at the test site, where Rockwell International has done nuclear and other energy work for the DOE.

It was the second meeting of a task force of local, state and federal environmental officials that was convened earlier this summer by the U.S. Environmental Protection Agency to assure that contamination problems at the site southeast of Simi Valley are being addressed.

"It appears they're quite serious about getting a good handle on the pollution that's there," said Rich Valle, assistant chief of waste programs for the EPA's western regional office, referring to the DOE audit team. Valle spoke to reporters after the task force meeting, which was not open to the press or public.

recycling of nuclear fuel. Cleanup work has been done over the years, but areas of radioactive pollution remain in the 290 acres of the 2,668-acre site devoted to work for DOE.

"We have been operating that area in a very safe manner, and there is nothing for anybody to worry about," said Pat Coulter, a spokesman for Rockwell's Rocketdyne Division.

Still, news of contamination at the site, prompted by release in May of a DOE survey report, has spurred a local campaign to block renewal of the federal license Rockwell needs to operate Santa Susana's "hot cell"—a heavily shielded area where nuclear fuel is handled. Rockwell has asked the U.S. Nuclear Regulatory Commission for a 10-year renewal of the license, which technically expired in June but has been extended pending review of the application.

On Friday the NRC announced that the State Office Building at 6150 Van Nuys Blvd. will be the site of hearings Sept. 28-29 on Rockwell's license renewal request. Both meetings will be in Room 430.

At the first session, scheduled from 7 to 10:30 p.m. on Sept. 28, Administrative Law Judge Peter B. Bloch will take oral or written statements of no more than 10 minutes, the NRC said. The agency said speaking priority could be obtained by notifying Bloch at the NRC, Washington, D.C. 20555, by letter mailed on Sept. 21.

At the Sept. 29 session, scheduled to begin at 9:30 a.m., Bloch will consider the request of 38 petitioners who objected to the license renewal to be parties to the proceeding, which would allow them to present contrary evidence.

Location of Meetings

Federal officials also announced Friday the time and location of meetings later this month on the proposed renewal of Santa Susana's nuclear materials license.

While agreeing with Rockwell and DOE officials that pollution at Santa Susana appears to be fairly minor and poses no immediate threat to the public, EPA officials had criticized aspects of Rockwell's environmental monitoring program and the lack of a reliable inventory of contaminated areas.

Earlier this summer an EPA radiation expert expressed doubt in a memo that Rockwell had a good handle on where radiation has been inadvertently or intentionally dumped on-site. "Most of the evidence on site spills is incompletely documented or anecdotal," the memo said.

In response to another EPA recommendation, Rockwell officials told the task force Friday that they expect to select and size by Dec. 1 a panel of experts to review their radiation monitoring program, including laboratory techniques for measuring radioactivity in water and soil.

DOE officials also presented a summary report estimating that $465.5 million will be spent on cleanup at Santa Susana through fiscal 1995 if sufficient funds are appropriated by Congress for cleanup of DOE sites nationwide. DOE officials have previously estimated cleanup needs at about $40 million.

Radioactive Pollution

The work will include cleanup of contamination remaining on soil and buildings from three decades of nuclear work, including operation of 16 small nuclear reactors and

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VALLEY NEWS

Pollution Study at Rockwell Lab Begins

By MYRON LEVIN,
Times Staff Writer

U.S. Department of Energy officials Friday told a task force of environmental agencies that they have begun an environmental audit of the Santa Susana Field Laboratory to assure that all contaminated areas of the research complex west of Chatsworth have been identified.

At a meeting in Burbank of the task force on pollution problems at Santa Susana, DOE officials said their audit team also will develop a comprehensive plan covering long-term environmental monitoring and cleanup needs at the test site, where Rockwell International has done nuclear and other energy work for the DOE.

It was the second meeting of a task force of local, state and federal environmental officials that was convened earlier this summer by the U.S. Environmental Protection Agency to assure that contamination problems at the site southeast of Simi Valley are being addressed.

"It appears they're quite serious about getting a good handle on the pollution that's there," said Rich Vaille, assistant chief of waste programs for the EPA's western regional office, referring to the DOE audit team. Vaille spoke to reporters after the task force meeting, which was not open to the press or public.

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Earlier this summer, an EPA radiation expert expressed doubt in a memo that Rockwell had "a good handle on where radiation has been inadvertently or intentionally dumped on-site. . . . Most of the evidence on site spills is incompletely documented or anecdotal," the memo said.

In response to another EPA recommendation, Rockwell officials told the task force Friday that they expect to select and hire by Dec. 1 a panel of experts to review their radiation monitoring program, including laboratory techniques for measuring radioactivity in water and soil.

DOE officials also presented a summary report estimating that $455 million will be spent on cleanup at Santa Susana through fiscal 1995 if sufficient funds are appropriated by Congress for cleanup of DOE sites nationwide. DOE officials have previously estimated cleanup needs at about $60 million.

Radioactive Pollution

The work will include cleanup of contamination remaining in soil and buildings from three decades of nuclear work, including operation of 18 small nuclear reactors and recycling of nuclear fuel. Cleanup work has been done over the years, but areas of radioactive pollution remain in the 290 acres of the 2,668-acre site devoted to work for DOE.

"We have been operating that area in a very safe manner, and there is nothing for anybody to worry about," said Pat Coulter, a spokesman for Rockwell's Rocketdyne Division.

Still, news of contamination at the site, prompted by release in May of a DOE survey report, has spurred a local campaign to block renewal of the federal license Rockwell needs to operate Santa Susana's "hot cell"—a heavily shielded area where nuclear fuel is handled. Rockwell has asked the U.S. Nuclear Regulatory Commission for a 10-year renewal of the license, which technically expired in June but has been extended pending review of the application.

On Friday the NRC announced that the State Office Building at 6150 Van Nuys Blvd. will be the site of hearings Sept. 29-30 on Rockwell's license renewal request. Both meetings will be in Room 128.

At the first session, scheduled from 7 to 10:30 p.m. on Sept. 29, Administrative Law Judge Peter B. Bloch will take oral or written statements of no more than 10 minutes, the NRC said. The agency said speaking priority could be obtained by notifying Bloch at the NRC, Washington, D.C. 20555, by letter mailed by Sept. 21.

At the Sept. 30 session, scheduled to begin at 9:30 a.m., Bloch will consider the request of 28 petitioners who objected to the license renewal to be parties to the proceeding, which would allow them to present formal evidence.

Times 9/16/89

Rockwell disclosure ordered

Official wants data on contamination

By TONY KNIGHT
Daily News Staff Writer

The Nuclear Regulatory Commission judge reviewing Rockwell International's request for a renewed license to handle radioactive materials has ordered a full accounting of contamination at the company's nuclear-research facility in the Simi Hills, according to documents released Monday.

A complete list of contamination incidents or releases since 1969 at the company's Santa Susana Field Laboratory, three miles west of Chatsworth, should be submitted before Sept. 29, NRC Administrative Judge Peter B. Bloch said in a Friday memorandum to the company.

"Be clear and concise, using figures or charts whenever helpful," Bloch said. "Answers should be in writing, under oath or affirmation."

A spokesman for the company's Rocketdyne Division, which operates the field laboratory, said a response to the judge's request is being prepared but he was unsure whether a complete list of spills and contamination incidents was available.

"I think it's a matter of being able to provide as much information as we have available, and we're certainly going to do that," spokesman Pat Coulter said Monday.

The NRC judge also issued a memorandum asking for details of company evacuation plans, if any, for area residents in case of an accident or an explanation of why such plans are not needed.

Coulter said the company has an on-site emergency plan, which is required by the NRC license. He said officials were going over the plan to see if any elements apply to off-site residents.

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Contamination disclosure ordered

ROCKWELL / From Page 1

If a complete list is provided, it will be the first thorough review of contamination problems at the field laboratory to be released since last May, when the U.S. Department of Energy released an environmental survey identifying some problems with chemical and radioactive contamination.

The report said there was no evidence of an imminent public health threat, but said more monitoring was needed to determine the extent of the problem.

In the ensuing months, area activists, the state Department of Health Services and the U.S. Environmental Protection Agency have asked for a complete audit of the site to identify all contamination problems.

The company has agreed to such an audit. But in the meantime, three San Fernando Valley residents have attempted to intervene in the company's request for a 10-year extension of its NRC license to handle nuclear materials.

The residents, who have called repeatedly for the company to disclose more information about radioactive contamination at the site, hailed the judge's memorandums.

"I'm happy," said Woodland Hills businessman Jon Scott, an opponent of the license renewal. "It further opens up developments. My main problem is that I just don't know all the facts."

The other residents who have intervened in the company's license application request are Estelle Lit, president of the San Fernando Valley United Neighborhood Associations, and Jerome Raskin, president of the Northridge Civic Association.

Bloch is reviewing the complaints of the residents who have demanded a hearing on the company's request for an extension of its license to handle nuclear materials at the Santa Susana Field Laboratory.

The public has been invited to submit oral or written comments on the issue at a meeting scheduled from 7 to 10:30 p.m. Sept. 28, in Room 120, 6150 Van Nuys Blvd.

A prehearing conference with all parties present is scheduled in the same room beginning at 9:30 a.m. Sept. 29. The conference is open to the public.

The company needs an NRC license to handle nuclear materials at its Radioactive Hot Laboratory, where highly contaminated nuclear fuel rods can be processed and nuclear materials recovered for other uses.

Most of the nuclear facilities on the 290-acre nuclear reservation are under DOE control and not covered by the license.

But Bloch, in Monday's memorandum, said that DOE operations are not exempt from his review in this case.

Coulter said he did not know whether the company would maintain that DOE operations are exempt from scrutiny by the NRC judge. He said company officials would not respond specifically to the new memorandums until the hearing.

"Everybody's kind of huddled behind closed doors with the letters taking a look at them," Coulter said.

Sept 25

SOUTHLAND

'Unusual events' at lab reported

Incidents occurred at Rockwell's Santa Susana facility during past 3 years

By TONY KIMBRIT
Daily News Staff Writer

9/25/89

Rockwell International has reported five unusual events at its nuclear research facilities in the Simi Hills in the past three years, according to documents released to area residents who oppose renewal of the company's Nuclear Regulatory Commission license.

The documents sent by the NRC last week to San Fernando Valley residents Estelle Lit, Jerome Raskin and Jon Scott reveal such "unusual events" as an overturned trailer used to ship nuclear waste, a missing radioactive gauge and pages removed from a log book where radiation doses to a worker were recorded.

Related story:
■ Government ousted Rockwell from troubled Rocky Flats plant. Page 7

The incidents did not result in violations of the NRC license, but were reported as part of the normal review of license operations, said Greg Cook, NRC spokesman in Walnut Creek.

"It's not terribly significant," Cook said. "The reportable incidents would be incidents that we require a formal report on. That is not the same thing as a violation."

Conceding the reported events are not serious, Lit said she still opposed the license renewal because the facility, three miles west of Chatsworth, is too close to a large urban population.

"I don't see any reason for this plant to continue dirtying up the environment and what we leave to future generations," Lit said.

Concerned about U.S. Department of Energy reports of radioactive soil contamination at the company's Santa Susana Field Laboratory in the Simi Hills, Lit, Raskin and Scott wrote to the NRC opposing renewal of the company's license to handle nuclear materials.

An NRC administrative law judge was assigned to the case and will accept public testimony on the matter during proceedings Thursday in Van Nuys. Members of the public will be allowed to speak or submit written statements to the judge beginning at 2:30 p.m. in Room 120, 6150 Van Nuys Blvd.

The judge will hold an informal pre-hearing conference between the company and any other parties who wish to formally oppose the license renewal beginning at 9:30 a.m. Friday at the same location.

"I will make an effort to accommodate everybody who shows up," said NRC Judge Peter B. Bloch. "They can just show up and they probably will be allowed to speak."

The Daily News reported in May that a DOE environmental survey team had found evidence of radioactive soil contamination and chemical soil and groundwater contamination on the 290-acre nuclear research portion of the field laboratory, which is operated by the company's Rocketdyne Division under a DOE contract.

The report said their was no evidence of an imminent public health threat, but that more investigation was needed to determine the extent of the problem.

In the ensuing five months, Rep. Elton Gallegly, R-Simi Valley, has convinced the U.S. Environmental Protection Agency to assume oversight of the cleanup of contaminated DOE facilities.

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'Unusual events' reported at Rockwell

ROCKWELL / From Page 4

The NRC has cited Rockwell for 58 violations of health, safety and security rules at its nuclear reactor facility since 1975, but NRC officials said the majority were administrative citations common to other nuclear facilities.

Spokesman for Rocketdyne Division, which operates the company's Santa Susana Field Laboratory, said the unusual event reports were made to keep other nuclear facilities informed of any events that could aid in strengthening safety measures.

"This process has contributed beneficially to the safety of the nuclear industry," said Paul Sewell, company spokesman.

Although DOE controls most of the nuclear research facilities at the site, a Hot Laboratory where highly radioactive nuclear fuel which can be processed is licensed by the NRC.

When they learned that the NRC license was up for renewal, residents alarmed by the contamination problem wrote letters demanding that the license be denied.

Bloch said he is conducting the proceedings next week to determine if there is sufficient reasons to conduct a formal hearing. Bloch said written statements can also be submitted to him in writing at the U.S. Nuclear Regulatory Commission, Washington D.C., 20555.

Since he was appointed to the case Aug. 22, Bloch has been gathering information about the company's NRC license. He said he has forwarded most of the material to Lit, Raskin and Scott.

Company documents show that 43 unusual events have been recorded. The company reported five events to the NRC, and 38 minor events were documented but not reported.

The company reported that in March 1988 a truck and trailer hauling an empty cask used to transport nuclear wastes overturned going around a corner at the field laboratory. The cask was not damaged.

A subsequent investigation revealed that the trailer was "unstable and structurally inadequate for the service."

In 1987, the company reported that a film badge assigned a radiographer indicated that the worker had been exposed to radiation over federal limits. The worker had not kept a separate log of his exposure history as he was supposed to and there was no evidence to refute the exposure recorded on the film badge.

The worker was removed from radiographic work for five quarters and managers were advised to make sure workers filled out the logs.

In 1986, the company reported the loss of a radioactive gauge. The gauge could not be found and was "presumed to be lost."

Also that year, an X-ray machine operator's film badge recorded an exposure over federal limits. Pages were found removed from the worker's log book and investigators concluded that the badge has been deliberately exposed "by an unknown persons, performed to create trouble."

The company also reported that a source of radioactive strontium was discovered missing on April 14, 1986. Investigation showed the material had mistakenly been thrown away in a container of radioactive wastes shipped to a licensed burial site.

DailyNews 9/25/89

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Nuke license hearing begins

CONCERNED: Susana Knolls homeowner Barbara Johnson speaks out for hearing on Rocketdyne's bid to operate a "hot lab" in the Simi hills.

Needed for testing in Simi Hills

By Susana Bricker and Armando Aguirre
The Enterprise Staff

Concerned residents of the Simi and San Fernando valleys this morning and Thursday night urged a regulatory judge to allow a hearing on renewing Rocketdyne's license to operate a "hot lab" in the Simi Hills.

But Rocketdyne officials defended the facility's safety record and dismissed the suggestion that the plant convert to non-nuclear uses.

"The hot lab is supplied with many safety features and is inspected three times a year by the NRC," said Rocketdyne spokesman Joseph Mills. "The NRC has never had to impose a fine and it is certainly our intent to keep operating in that form."

In the first stage of a formal licensing procedure in Van Nuys today, Judge Peter B. Bloch of the Nuclear Regulatory Commission urged participants to relay their concerns about the nuclear lab at the Santa Susana site.

The laboratory is the only facility on the site licensed by the NRC.

Until 1988, it was used to dismantle reactor fuel from experimental Department of Energy facilities. The dismantling is the initial stage of producing weapons grade plutonium 239, which is used in nuclear weapons warheads, said James D. Werner, environmental engineer for the Natural Resources Defense Council.

Although it is no longer in operation, the facility is still known to be contaminated, said Gregory N. Cook, public affairs officer for the United States NRC, Region 5.

Cook said today's federal prehearing conference is the first stage of the formal license renewal process.

"If there is going to be a hearing, the people have to demonstrate there is some potential danger that could occur from the renewal," Cook said.

According to federal regulations, this could be either a physical or a financial loss.

(Please see LAB, Page 6)

Lab

(Cont. from Page 1)

"If they are going to be part of the hearing process, one party must demonstrate at least one concern directly related to the renewal request," Cook said.

Jon Scott of Bell Canyon was the first speaker at this morning's conference, which began at 9:30 a.m. in the State Building in Van Nuys.

"I am here to say why we want to be able to live in safety and why Rockwell (International, parent company of Rocketdyne) should not be able to continue its present performance within a rural area," Scott said. "I don't think Rockwell gives a hoot about who could be affected by a nuclear accident."

During the testimony, Bloch asked Scott to clarify his concerns about activities relevant to Rocketdyne's request for a license renewal.

Scott responded with a summary of his requests, which ranged from a denial of their renewal appeal to permanent removal of the field laboratory from its present site.

Cook said the renewal proceedings could take up to a year; however, he also said the results of the prehearing conference may delay it further.

This is not the first time homeowners have voiced complaints against research and development activities at Rockwell's Santa Susana Field Laboratories.

On Thursday, local residents urged Bloch to just say no to Rocketdyne's request to renew its license that will allow research, development and fuel decladding activities at it's Santa Susana lab.

Barbara Johnson of the Santa Susana Homeowners' Association said the residents' main concern is the population in Simi Valley, which numbers more than 100,000.

The residents objected to the licensing because the facility is no longer in an isolated area as was when it first went on line during late 1950s.

"We can't afford to be silent and trusting and passive. The population has ballooned to 100,000," Johnson said. "We consider ourselves under a great threat. The burden of proof should be on Rocketdyne," Johnson said.

Johnson demanded that the residents be given a full disclosure of operations at the facility.

"The most obvious and urgent need is to know," Johnson said. "Discovery has been forced, belated and reluctant."

The comments were made prior to the public prehearing conference this morning.

Bloch and more than 130 people jammed onto a small room where they listened to the oral testimony of residents wishing to contest the licensing.

While Bloch told the crowd peaceful uses of nuclear materials is legal and it's not an issue, it did not mean Rocketdyne's license will be renewed.

"If you feel that nuclear material should not be used at all, your recourse is the Congress, not this hearing," Bloch said.

Copies of the application and the comments will be available at the Simi Valley Library in about 10 days, Bloch said.

Last spring, a DOE environmental study reported toxic chemical and radioactive pollution at the lab.

Federal and state regulators who monitor elsewhere at the lab said they were not aware of the extent of the contamination in the 290 acre nuclear test area.

Rocketdyne and DOE officials have said repeatedly the contamination poses no health risk to the public.

Johnson also questioned the reliability of the U.S. Department of Energy monitoring its own activities.

Rocketdyne's denials of accidents or injuries resulting from nuclear operations have repeatedly turned to admissions, said Don Wallace, a Canoga Park resident and a Los Angeles Fire Department captain in Woodland Hills.

"I do not believe Rockwell's denials; too often they have turned into admissions," Wallace said.

Mills said the cost of reconverting the facility would be "in the tens of millions of dollars."

Mills told the audience he had enough confidence in Rocketdyne to move his family to the west San Fernando Valley near the lab.

"I moved my family there with full knowledge of the activities there," Mills said.

Marie Mason, who lives on Clear Springs Road, said the narrow winding canyon road was too dangerous to continue transporting nuclear fuel rods.

"The fact that a trailer overturned at the site on the (lab) surface is bad enough; what about possibility of an accident on the way to the site?"

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Daily News 9/30/89

3 allowed to fight Rockwell licensing

NRC to hear neighbors' complaints

By TONY KNIGHT
Daily News Staff Writer

VAN NUYS — A U.S. Nuclear Regulatory Commission judge granted three San Fernando Valley residents the right Friday to oppose Rockwell International's renewal of its license to handle nuclear materials at its field laboratory in the Simi Hills.

The action by Administrative Judge Peter B. Bloch gives the residents, none of whom has a background in legal matters or nuclear physics, the opportunity to present written arguments on why the company should not be licensed to conduct nuclear research at the Santa Susana Field Laboratory, three miles west of Chatsworth.

Bloch said Estelle Lit and Jerome Raskin, both of Northridge, and John Scott of Bell Canyon had raised sufficient concerns to demonstrate that their health and welfare might be

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Residents get right to oppose renewal of Rockwell license

NUCLEAR From Page 1

affected by the operation of nuclear facilities at the field laboratory.

"I foresee it as a tremendous amount of work," said Raskin, president of the Northridge Civic Association. "I don't look forward to it but I feel it is something that has to be done. I have children and grandchildren, and I want to help try and make it a livable world."

The intervenors will be able to rely on any legal or scientific expertise that they can muster, Bloch said. And they now become the conduit through which other members of the community can raise issues relevant to the NRC licensing issue.

The judge gave the intervenors until Jan. 3 to submit their initial arguments. Rockedyne will have 90 days to respond, and a series of rebuttals and closing arguments will be submitted over the course of the case, which is expected to conclude on July 10, 1990, according

tremendous amount of time and effort, and having no legal background, I think it's going to be a very difficult task," said Lit, president of the Valley chapter of the United Nations Association.

Four other parties, Woodland Hills firefighter Donald Wallace, Sybil Zeppieri of Box Canyon, Arline Mathews of Chatsworth and the Natural Resources Defense Council, a Washington, D.C.-based environmentalist group, were given additional time to submit written applications to intervene in the process.

During nearly five hours of proceedings conducted by Bloch Friday at the State Office Building in Van Nuys, the prospective intervenors raised concerns for their health and safety if a fire or earthquake caused a release of radioactivity.

They cited a recent U.S. Department of Energy report revealing radioactive soil contamination at the site as evidence that company

you decide in favor of a hearing, we will cooperate fully."

The company also submitted a list of 24 chemical spills that have occurred on the 290-acre nuclear research portion of the field laboratory since 1964.

The list was a response to the judge's order last week for compilation of all "significant chemical and radiological contamination incidents or releases at Santa Susana."

The list submitted to the judge contained no mention of radiological spills, even though documents obtained by the Daily News in recent months have shown at least three areas of radioactive soil contamination, one of which was cleaned up in July.

Robert Lancet, Rocketdyne director of nuclear safety and licensing, said no radioactive releases were included on the list because all releases in the past 20 years were too "trivial" to be mentioned.

When asked about the documented soil-contamination problems that must be cleaned up, he said he believed that they all occurred before 1969. Company officials declined to comment further on the matter.

The conference Friday was the second public proceeding at the state office building in two days that was conducted by the Washington, D.C.-based judge. On Thursday night, he allowed anyone who wanted to speak to comment on Rocketdyne activities at Santa Susana.

Many residents living within 10 miles of the mountain laboratory raised concerns Thursday for their safety, and accused the company of hiding problems with radioactive contamination at the site.

The judge ruled that none of the comments would be made part of the formal record, but the newly designated intervenors may now raise any of these issues formally.

Peter B. Bloch
Says sufficient concerns raised

Both Wallace and the NRDC seem likely to be granted intervenor status, officials said.

Wallace, a fire captain stationed in Woodland Hills, said the company's emergency contingency plan erroneously states that the company has an agreement with the city of Los Angeles to respond to an emergency with firefighting equipment and ambulances.

"No such agreement has ever existed," said Wallace, who said he checked with fire department headquarters. "None such exists now."

Rocketdyne spokesman Pat Couter said the company could not respond to the charge during the proceeding.

"We're looking into that," he said.

James D. Werner, an NRDC environmental engineer who was formerly hired by the DOE to survey environmental problems at Santa Susana, said he believes that the company might be planning to use the hot lab to process plutonium for nuclear bombs from spent nuclear fuel rods.

He said such DOE activities would be exempt from NRC regulation.

Park purchase stalled over Rocketdyne radioactivity

By Susan Chasen
The Enterprise Staff

The Santa Monica Mountains Conservancy is putting off buying the Sage Ranch for parkland until further tests for contamination are done on the 680-acre Simi Hills property.

The Sage Ranch is located north of Rocketdyne's Santa Susana Field Laboratory, where radioactive and chemical contamination has been found.

"We had tests done that showed that radioactivity in the water was more intense the closer and closer you got to Rocketdyne," said Joe Edmiston, conservancy executive director.

The levels were so low they are well within official health standards, but, said Edmiston, the conservancy wants to do more extensive tests to confirm that there is no hazard.

"We'll do an exhaustive potential liability study," Edmiston said, "because even if we didn't cause the problem, you can be held responsible for cleaning it up."

Current studies have only focused on water wells. Additional studies will examine the soil and atmosphere for contamination. Also a review of the site's history with respect to problems at Rocketdyne will be done to determine if there is potential for more serious problems down the road.

Edmiston said official reports have all indicated that there is no problem, but the conservancy has to consider continuing concerns that have been reported in the press.

In June, the conservancy voted to authorize purchase of the property at a price not to exceed $4.2 million. The site is a high priority acquisition for the agency because it offers a variety of outdoor recreational opportunities, already has good access, and is an important wildlife habitat resource.

Funding is available from Proposition 70, the parks and wildlife bond act passed in 1988. It was originally hoped that an agreement with the seller, Property Mortgage Co., could be reached sometime in July. Now, if the purchase goes forward, it is not likely to happen before January, Edmiston said.

The conservancy has already asked that state and county environmental health officials do tests on the site, according to Susie Thompson, analyst for the conservancy.

"After we've had the state and the county tests done, we will have a professional consulting firm to go over those results and do whatever else needs to be done to give us the assurances we need that the place has a clean bill of health," Thompson said. "Of course, if it doesn't, we don't spend the taxpayers' money on it."

"If it wasn't such a great piece of property we would have just shrugged our shoulders and walked away."

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Dates set for Rocketdyne comments

By Serena Bricker
[illegible] Staff

A Nuclear Regulatory Commission judge has set a date for submitting final applications to protest Rocketdyne's Santa Susana Field Laboratory request for a renewal of its license to process nuclear material.

The deadline for submitting written concerns germane to the licensing request will be 30 days from the date he posts a federal register notice, Judge Peter B. Bloch announced Friday at a public prehearing conference in Van Nuys.

He said he intends to try and post the notice sometime next week.

"The register notice is the federal government's official bulletin board," said Gregory N. Cook, public affairs officer for the U.S. Nuclear Regulatory Commission Region V. "It is an official document by which the government lets the public known what actions it is planning to take or is taking."

During that one-month period, persons can submit in writing reasons why they believe they would be physically or financially affected affected by the renewal of this license, Cook said.

Once the filing date has passed, requests will no longer be allowed, he said.

Bloch unveiled the terms of the filing schedule at Friday's prehearing conference in Van Nuys. The schedule allows individuals opposed to the licensing request time to express their hand-written grievances to Rocketdyne, a division of Rockwell International Corp.

It also gives a specified time period for Rocketdyne to respond.

Bloch structured both response times in two-month increments beginning in October and ending in July.

Pat Coulter, Rocketdyne's director of communications, said he was pleased with the plan Bloch laid out because it fairly represented the interests of all parties concerned.

"This is an outstanding plan," he said. "This will really open up the lines of communications and keep us

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• Radioactive water near Rocketdyne site delays park purchase. Page 2.

Nuclear

(Cont. from Page 1)

ent rules for everyone to express their opinions."

Sybil Zeppiere, who a filing a request to oppose the license renewal, said she was also pleased with the schedule.

"I regard this as a fine attempt to diversify a narrow issue," said Zeppiere, who lives in close proximity to the Santa Susana Field Laboratory.

She described her interest in the future of the testing laboratory in the Simi Hills even as a matter of personal concern.

Zeppiere said she became severely ill in May a few days after smelling a contaminant odor outside her home.

ENTERPRISE 9/30/89

EPA calls Rockwell lab safe, but admits test is incomplete

By TONY KNIGHT
Daily News Staff Writer

An Environmental Protection Agency report said Tuesday that contamination at Rockwell International's nuclear facility in the Simi Hills is not a public health hazard, but officials conceded the survey missed the worst radioactive soil problems.

The EPA radiological survey, based on soil samples taken in July at six areas, found that radiation has not spread from the Santa Susana Field Laboratory three miles west of Chatsworth. Only one area showed unusually high readings, about eight times above background levels, the report said.

But the EPA official who conducted the survey said it did not include data on soil contamination at a nine-building radioactive waste packaging facility where company tests have found radioactivity 200 times above background levels.

"Our investigation is not over," said Gregg Dempsey, chief of the EPA's office of radiation programs in Las Vegas, Nev.

"All I can say is that I wasn't aware of it, and I'm going to get aware of it," he said. "If I would have known about it, I think I certainly would have sampled."

Officials of Rockwell's Rocketdyne facility, which operates the facility, refused to comment on whether they directed EPA investigators to the waste packaging complex.

"The EPA report confirms what Rocketdyne has maintained all along that only very minor amounts of low-level contamination are present in the soil and ground water at the Santa Susana Field Laboratory, that they are being effectively cleaned up, and that there is no evidence of it migrating off site," said Pat Coulter, Rocketdyne spokesman.

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Survey misses Rockwell lab area

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The EPA study was prompted by disclosure in the Daily News on May 14 of a U.S. Department of Energy survey which found radioactive and chemical contamination at the 40-year-old Santa Susana nuclear research facility.

Dempsey said the reading of 3,400 pico curies per gram — 230 times above background levels — at the waste packaging facility is still low level and does not pose an imminent public health threat. He said he would return to the mountain site to retest contaminated areas that were missed.

Dempsey said Rocketdyne officials were asked at lab where the contaminated areas were but did not mention the problem at the waste complex.

The Daily News reported Sept. 3 that company and DOE documents dated as early as July 1983 indicate that low-level soil contamination was a problem at the nine-building complex known as the Radioactive Materials Disposal Facility.

EPA officials in San Francisco said the first they learned of the waste facility's contamination was in the newspaper report.

Richard Vaille, EPA's assistant director of the toxics division, said the information was not forwarded to Dempsey in Las Vegas because of an oversight.

"No excuses here," Vaille said Tuesday. "We thought he had it. We're going to have an addendum to the report. If (Dempsey) needs to sample again, he'll do it."

This is the second time that government investigators conducting an environmental survey have missed the waste facility's contamination.

The DOE environmental survey team that inspected the site in May 1986 was not given key information about the contamination, officials said.

Rocketdyne officials have said they didn't have to report the waste facility's contamination to the survey team because they had already reported it to another arm of the DOE.

But DOE officials in the San Francisco field office said in Washington D.C. said the contamination should have been reported to the survey team.

The DOE released a report earlier this month outlining $34.6 million in cleanup activities on the nuclear reservation over the next five years, including $5.3 million for surveillance and maintenance of the complex and final decontamination through 1995.

The EPA radiological survey released Tuesday includes soil sampling data from six areas of the Santa Susana Field Laboratory with only one area near the Building 64 nuclear storage facility showing readings above background levels at about 300 pico curies per gram.

The company excavated the contaminated soil at Building 64 in September and packaged it for shipment to a waste site.

The report also recommends more investigation into the discovery of radioactive tritium that was found in ground water under Building 59, where a nuclear reactor was operated in the 1960s.

The tritium level discovered is hundreds of times lower than the safe level for drinking water, Dempsey said. But more testing should be done to determine the source of the contamination, he added.

DOE officials said they intend to conduct more tests to try to determine the source of the tritium. The company has dug 17 new ground water monitoring wells in an effort to further characterize contamination problems at the site.

The EPA also reported that an evaluation to see whether the Rocketdyne site should be included in the federal Superfund list has been delayed while officials gather more information on the airborne pathways through which chemical contamination could be carried.

Daily News Sept. 89

Rockwell lab cleanup accelerates

State agency orders testing before buying land near site

By TONY BIZJAK[illegible] and STACEY [illegible]
Daily News Staff Writers

The Santa Monica Mountains Conservancy has delayed purchasing a ranch next to Rockwell International's Simi Hills research laboratory pending tests to determine whether there is radioactive or chemical contamination on the property, agency officials said Saturday.

The conservancy, a state agency authorized to purchase private lands for public use, voted in June to spend no more than $4.2 million to buy the 600-acre Sage Ranch, which borders the northern side of Rockwell's Santa Susana Field Laboratory, three miles west of Chatsworth.

But negotiations with the

See SAGE / Back Pg

> "We've cleaned up some of these because of public concern. The public can become so phobic about radioactivity."
>
> — Robert Tuttle
> director of radiation safety and health at Rockwell's Simi Hills research lab

Public concern spurs removal of radioactivity at Simi facility

By TONY BIZJAK[illegible]
Daily News Staff Writer

Contamination inside two aging nuclear facilities at Rockwell International's Simi Hills research laboratory has been removed in the past two months in a stepped up environmental program, officials said.

The cleanup reflects an acceleration of a planned $45.5 million program at the Santa Susana Field Laboratory, due to public disclosure of contamination. As many as 16 buildings and two dirt areas remain contaminated from extensive nuclear research conducted primarily in the 1960s and 1970s, officials said.

"What this is, is a reflection of more emphasis and funding for environmental restoration," said Richard Nolan, assistant manager of the Department of Energy's San Francisco field office.

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10/1/89

Rockwell lab cleanup stepped up

ROCKWELL / From Page 1

Robert Tuttle, director of radiation safety and health at the facility operated by Rockwell's Rocketdyne division, said, "We've cleaned up some of these because of public concern. The public can become so phobic about radioactivity."

The Daily News reported May 14 that a DOE environmental survey found toxic and radioactive contamination at the facility, three miles west of Chatsworth. The report said there was no imminent threat to the public but called for more testing.

Since then state and federal health and environmental agencies have stepped up monitoring and oversight at Santa Susana and DOE has announced it will conduct an extensive testing program.

In announcing the accelerated cleanup program, DOE and Rocketdyne officials also released documents which give the most complete picture yet of radioactive and chemical contamination at the 290-acre nuclear reservation.

The documents also provide a cost estimate and a time line for completing most cleanup projects.

Among the $45.5 million in projects to be conducted through 1995 are:

- Cleaning up all areas of known soil contamination.
- Decommissioning and decontaminating five aging nuclear facilities. The DOE decontaminated and decommissioned 10 nuclear facilities between 1972 and 1986.
- Cleaning up the two remaining active nuclear facilities — the Rockwell International Hot Laboratory and the nine-building Radioactive Materials Disposal Facility (RMDF).
- Improving and increasing the accuracy of monitoring programs to ensure that radioactive material doesn't migrate from the property over the 7-year period.
- Construction of a $2.9 million waste-water treatment system to clean up waste water from the non-nuclear Sodium Components Test Installation, the largest working project at the nuclear reservation.
- Spending more than $2 million on hazardous waste management, including disposal of liquid metals and other chemical wastes associated with past nuclear activities.

DOE officials said the recent cleanup activities are the culmination of a program started three years ago by former Energy Secretary John S. Herrington aimed at emphasizing environmental protection over production of nuclear weapons.

[illegible] paperwork are completed.

Cleanup activities at Santa Susana have gained momentum in the past five months since disclosure in the DOE survey of chemical contamination of the soil and ground water and radioactive contamination of the soil at the site.

The EPA has assumed oversight of the cleanup program, and both the state Department of Health Services and the Regional Water Quality Control Board have ordered additional cleanup activities.

The EPA also inspected the site, declaring that there is no evidence of an imminent public health threat, but recommending that the company increase monitoring for radioactive contamination in the environment and improve many of its testing methods.

Seventeen new ground-water monitoring wells are being dug to find out if any radioactivity has seeped into the ground water, and new air monitors have been installed to detect contamination in airborne dust near soil contamination areas.

The company has investigated 10 sites of actual or potential contamination outlined in the DOE environmental survey. Two of the worst sites are included in the five-year plan with a request for $14.6 million to clean them up.

Three other sites, including the old storage yard, were cleaned up during the summer, and data from the new monitoring wells will determine if cleanup is necessary at two other sites.

Investigations at the three remaining sites revealed no contamination problems.

The outline of the $45.5 million cleanup plan was given Sept. 15 to officials of state and federal regulatory agencies that make up a Santa Susana Task Force established at the urging of Rep. Elton Gallegly, R-Simi Valley.

"We are developing a site-specific plan that will outline details of each of these cleanup projects that will be available for review by the EPA folks by Nov. 10," Nolan said. "It will probably take a near-term focus. By then the 1990 budget figures will be out, and it will take a more specific look at what we will do in 1990 and '91."

The company's Rocketdyne Division has conducted research and testing at the field laboratory since 1948. Much of the site is devoted to rocket testing and development for the National Aeronautics and Space Administration and the U.S. Air Force.

Since the 1950s up to 16 experimental nuclear reactors were developed and tested under DOE contracts on the site's nuclear [illegible]

SANTA SUSANA FIELD LABORATORY

Following shows contamination problems and facilities at Rockwell's 290-acre nuclear reservation in the Simi Hills, and plans for cleanup projects.

CONTAMINATED AREAS OUTLINED IN THE DOE ENVIRONMENTAL SURVEY

1. Building [illegible]: $[illegible] million cleanup scheduled for 199[illegible] completion.
2. [illegible] Pit: $7.3 million cleanup scheduled for 199[illegible] completion.
3. [illegible] Leach Field: Monitoring wells installed.
4. Old Conservation Yard: Cleaned [illegible]
5. Building 100 Trenches: Monitoring well installed.
6. Building [illegible]: Cleaned up in 19[illegible]

EXISTING NUCLEAR FACILITIES TO BE DECONTAMINATED

7. Rockwell International Hot Laboratory: $10 million cleanup under way.
8. Radioactive Materials Disposal Facility: $[illegible] million cleanup scheduled for 199[illegible] completion.

INACTIVE NUCLEAR FACILITIES TO BE DECONTAMINATED

9. Building [illegible]: Decommissioning scheduled for 199[illegible]. Soil contamination cleaned up in July.
10. Building [illegible]: Cleaned up in [illegible]
11. [illegible]
12. Building [illegible]: Decommissioning scheduled for 199[illegible]
13. Building [illegible]: Decommissioning scheduled for 199[illegible]
14. Building [illegible]: $[illegible] million decommissioning scheduled for 199[illegible]
15. Building [illegible]: $471,000 decommissioning scheduled for 199[illegible]

SOURCE: DOE and Rocketdyne Division

Daily News 10/1/89

Herrington's successor, Adm. James D. Watkins, released a $21 billion, five-year cleanup plan last month aimed at solving the massive environmental problems plaguing DOE facilities nationwide.

The DOE's San Francisco office said the cleanup plan released last week reflects Santa Susana's $45.5 million share of the overall DOE budget.

"What this is, is a snapshot of the detail for the Santa Susana field lab," Nodan said. "This plan is intended to reflect all that is known at the time it was produced about the site and what needs to be done to clean it up."

Company officials disclosed last week that two of eight remaining decontamination jobs in old facilities were completed in August and September, and released documents outlining the remaining decommissioning and decontamination projects.

They said soil contamination in a building and an old storage yard was cleaned up in July.

Tuttle said a contaminated concrete storage area at one building and an underground radioactive water holdup tank at the former site of a small reactor were cleaned up this summer because the jobs were relatively small and could be done quickly. He said both buildings were ready for release for unrestricted use as soon as final testing and

[illegible] operation reached its zenith in the 1960s and early 1970s and has since been on the decline.

The company and the DOE began a decontamination and decommissioning program at the field laboratory in 1974, cleaning up 10 old facilities through 1986.

Although some nuclear research has continued up in the present, most facilities were mothballed until funds were available for cleanup, officials said.

In addition, the DOE environmental survey found several areas of significant soil contamination that must be cleaned up. Company and DOE officials said they had been aware of the low-level radiation for years and had not cleaned it up because there was no danger.

However, the officials said the DOE spending plan that will be presented to Congress indicates that postponement of the cleanup would increase the risk of ground water contamination.

James D. Werner, a consultant who worked on DOE environmental surveys of Santa Susana and eight other nuclear installations across the country, said the practice of delaying cleanup of low-level contamination was widespread at DOE facilities.

"They fill out a form when they find a contaminated area and they just put off cleaning it up," said Werner, now an employee of the Natural Resources Defense Council, an environmental group. "That's one of the complaints that we have against the department. They have this backlog of contaminated areas."

The cleanup outline released by the DOE envisions spending $19.3 million on Priority One cleanup activities. These are defined as activated "to prevent near-term adverse impacts on workers, the public, or the environment." These include ongoing activities that if terminated would result in "significant program impacts."

There are no Priority Two jobs on the DOE plan for Santa Susana. These are activities necessary for compliance with agreements with other governmental agencies.

The outline calls for spending $14.8 million on Priority Three activities, which include those that would further reduce environmental risks and prevent disruption of DOE activities.

It is estimated $11.4 million will be needed for Priority Four activities, defined as cleanups not required by regulations, but that must be done to release facilities for unrestricted future use.

Priority One projects include spending $10 million this year and next on decontamination of the Rockwell International Hot Laboratory, where highly radioactive fuel rods can be processed via remote control.

The DOE's other major Priority One project asks for $7.3 million for cleanup and decommissioning of Building 59 by 1992. A prototype of a space-based nuclear reactor was tested in this building during the 1960s.

Ground water was discovered leaking into the basement of Building 59 in 1983 where it was contaminated by radioactive sand that had been used for shielding. The DOE has spent $5 million to remove and clean up the sand and some other contaminated material.

Other Priority One projects include $149,000 for surveillance and maintenance through 1994 of Building 24, where one of the space-based reactor prototypes was tested, and $70,000 through 1991 for surveillance and maintenance of Building 005, where nuclear fuel was fabricated.

The projects also include $1.6 million for maintenance and surveillance of RMDF, $133,000 for management and disposal of hazardous wastes, and $55,000 for surveillance and maintenance of six work areas where low levels of contamination were found during a recent field lab radiological survey.

The top Priority Three project in the plan earmarks $7.3 million for cleanup of the Sodium Burn Pit by 1993. The Burn Pit, an old dump site where chemical and radioactive wastes have been detected, was one of the most significant environmental problems revealed by the DOE survey.

Other Priority Three jobs include construction of the $7.9 million waste-water treatment system, $866,000 to install impervious liners around fuel and chemical tanks, $1.8 million for the new [illegible] ing wells, $2 million to dispose of waste metals and containers containing liquid sodium and $280,000 to bring the RMDF into compliance with EPA regulations for operations of a hazardous waste facility.

The plan's Priority Four projects include spending $4.8 million by 1994 to decommission and decontaminate Building 24, which still contains a large quantity of contaminated equipment; $1.3 million by 1993 to decontaminate radioactive areas at RMDF, the most significant contamination not included in the DOE survey report; $1.5 million to build an air pollution control system for the SCTL, and $471,000 to decontaminate radioactive ducts and filters in Building 005 by 1991 so it can be released for unrestricted use.

Santa Monicas Conservancy stalls Sage Ranch deal

OE / From Page 1

[illegible]er, Property Mortgage Co., [illegible]e been suspended while a [illegible]es expert is called in to determine whether the conservancy would inherit an expensive [illegible]roup, said Ann Rushton, the [illegible]ervancy's attorney.

"If we bought it we wouldn't want to be in a position where it is going to cost a lot of money for cleanup," Rushton said. "We've told them that we need to see the results of the tests to see what we're up against. It's not that we have changed our mind, just that we want to be cautious."

Efforts to reach a Property Mortgage Co. spokesman were unsuccessful.

Rocketdyne spokesman Pat Coulter said Saturday that the company has no comment on the Sage Ranch negotiations.

"There's nothing to say," Coulter said. "We're just not aware of it. To the best of my knowledge we have not been contacted by the conservancy or the Sage Ranch people."

Tests on four Sage Ranch water wells conducted in September by the state Department of Health Services revealed low levels of radioactivity, well within safety standards, said Sonia Thompson, conservancy project manager for the site.

"Those tests showed radioactivity in the water was greater on the Rocketdyne side of the property than on the other," Thompson said. "All wells tested under the allowed limits."

Thompson said the conservancy has decided to call in a consultant to conduct a complete series of environmental tests at the old citrus and avocado ranch.

"Testing will begin any time," she said Saturday. "They might even have begun testing."

The state ordered Rockwell to test 16 off-site water wells and springs for radioactivity in June, and only low levels of radioactivity, below safe drinking water standards, were found.

State officials said at the time traces of radioactivity can be detected in most well water because of contact with radioactive rocks that occur naturally in the ground.

Rockwell's Rocketdyne Division has conducted nuclear research and rocket engine testing at the 2,668-acre field laboratory since the 1940s.

The DOE released an environmental survey of the field laboratory in May that revealed problems with radioactive soil contamination and chemical ground-water contamination in the 290-acre nuclear research portion, in the southeast section of the field lab.

The survey said there was no evidence of an imminent public health threat, or that contamination has migrated off the company property. But it recommended more investigation to determine the extent of the problem.

Also, the company has spent more than $1 million since 1985 cleaning up chemical contamination in the ground water on the rocket engine testing portion of the site, which borders the Sage Ranch.

State's role in Rockwell cleanup to be debated publicly

By TONY KNIGHT
Daily News Staff Writer

Assemblyman Terry Friedman will conduct a public hearing on the state's role in regulating the cleanup of contamination at Rockwell International's nuclear research facility in the Simi Hills.

The Oct. 19 hearing in Van Nuys will help determine the responsibilities of state health and environmental agencies, Friedman aide Nancy E. Grant said Wednesday.

"I'm quite concerned, and I want to see if there needs to be increased staffing or increased oversight or any action that the legislature needs to take that would be in the purview of my subcommittee that would protect the public's health," said Friedman, D-Sherman Oaks.

Friedman is chairman of the Subcommittee on Health Welfare of the Assembly Ways and Means Committee. The subcommittee has oversight of the Department of Health Services and the Regional Water Quality Control Board.

Both agencies are involved in regulating environmental cleanup programs at Rockwell's Santa Susana Field Laboratory, three miles west of Chatsworth.

The company's Rocketdyne Division has conducted nuclear research at the facility since the early 1950s under a U.S. Department of Energy contract.

A DOE environmental survey released in May identified problems with chemical ground water contamination and radioactive soil contamination.

The survey found no evidence of an imminent public health threat, but recommended more monitoring to determine the extent of the problem.

In a related matter, U.S. Nuclear Regulatory Commission officials said Wednesday that they had denied the request of two activist groups to suspend Rocketdyne's license to handle nuclear materials.

The Los Angeles Chapter of Physicians for Social Responsibility, and the anti-nuclear group Committee to Bridge the Gap had petitioned the NRC to suspend the license while a criminal investigation is being conducted into illegal dumping at Rockwell's Rocky Flats nuclear plant in Colorado.

"It's essentially been denied," NRC spokesman Greg Cook said Wednesday. "That's the end of this petition."

The Friedman hearing will be from 9 a.m. to 1 p.m. in Room 120 of the state office building, 6150 Van Nuys Blvd.

For the past three years, the state health department's Toxic Substance Control Division and inspectors with the regional water board have overseen a major cleanup of chemical contamination on the ground water on portions of the field laboratory leased to rocket testing for the Air Force and the National Aeronautic and Space Administration.

After the DOE survey was released, health department and regional board officials said they were surprised to learn of the problems in the nuclear area.

DAILY NEWS 10/5/89

Rockwell denies toxics violations

Accuses state of stalling cleanup attempts at Santa Susana lab

By BETH BARRETT
Daily News Staff Writer

Rockwell International officials denied Friday the state's claim of 11 violations of hazardous waste laws at its Simi Hills nuclear research facility and accused the California Health Department of unresponsiveness and delays.

In formally responding to the list of violations of federal and state laws issued nearly two months ago, company officials said they were being accused of problems that they have been trying to fix for years while getting little help from the state.

"The department has cited Rockwell for taking actions to remediate historical problems," the company said. "However, the department appears to have made minimal attempts to respond to Rockwell's requests and permit applications."

Pat Coulter, spokesman for the company's Rocketdyne Division, which operates the Santa Susana Field Laboratory, said the company will cooperate with health officials but said it is concerned because the department has been slow to respond over the years.

A state health official defended [illegible] actions, saying they reflect [illegible] scrutiny of the 2,600-acre [illegible] laboratory following the [illegible] disclosure in the Daily [illegible] of a U.S. Department of Energy environmental survey that found radioactive and chemical contamination at the facility.

Scott Simpson, chief of surveillance enforcement for the state Health Department's Toxic Substances Control Division, said the department believes the violations are significant, although officials have found no evidence they pose health dangers to employees or residents.

"We'd drop them if we weren't confident," Simpson said Friday.

State health officials originally

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Rockwell says state delayed lab cleanup

ROCKWELL / From Page 1

listed 14 violations of federal and state hazardous waste laws in an Aug. 11 letter to the company. However, two — including a charge that a release of radioactive waste went unreported nearly 25 years ago — were dropped earlier this week, and one violation was referred to the California Regional Water Quality Control Board.

Health officials now will consider the company's response, and decide whether an enforcement action is warranted, Simpson said. The maximum administrative penalty for each violation of a hazardous waste law is a fine of $10,000 per day. The courts can order a maximum fine of $25,000 per day, he said.

Simpson said field inspectors found elevated — but not hazardous — levels of radioactivity in one building, and thought it was an unreported spill. The company, he said, showed the radiation readings came from a cement vault where nuclear material in a pencil-size vial was stored previously.

"It was a benign situation," Simpson said, explaining why the violation was dismissed.

One violation deals with a contaminated area in the 290-acre nuclear portion of the lab, Area IV, and another involves practices for disposing of hazardous wastes identified in the DOE survey.

The remaining violations are in areas where Rocketdyne has done work for the Air Force and the National Aeronautics and Space Administration.

Company officials disputed seven violations as either incorrect, or the result of health officials' lateness in responding to permit applications. They argued that two violations either did not involve a hazardous waste, or covered a type of hazardous waste the state has no jurisdiction over.

Simpson said the state contends the material submitted by Rocketdyne was not complete, or did not meet the format established under state law for cleaning up old ponds that were contaminated with toxic chemicals. He said the company has agreed to rewrite some reports.

The company's response also states that it obtained the proper permits to operate a burn area where security guards shot bullets into highly flammable canisters, although it said the company was unable to locate a 1983 authorization letter.

"Rockwell has always responded in a timely manner to all regulatory agency requests," said the Oct. 5 letter signed by Steve Laflam, the company's environmental manager. "However, it is sometimes difficult to locate the older documents."

Simpson said, "We're saying they didn't refile the way we said to refile (the application)."

The company said it instituted one new procedure in response to a violation that charged officials had not kept written reports on inspections of tanks where hazardous wastes are stored for less than 90 days. The written records were begun June 19, the response said.

Simpson said inspectors spent three days in June at the lab, and did the most extensive survey ever conducted there by health officials. He said the 1988 DOE survey criticizing the company's monitoring program and calling for additional tests spurred the broader evaluation.

He added state inspectors in the past were unwilling to question the company's insistence that the facility was regulated through federal agencies, including the DOE, which runs the nuclear test area with Rocketdyne.

Simpson also said that some hazardous-waste laws have changed, as have the agencies responsible for cleanup at Santa Susana lab.

"I think the department is better at inspections than it was in 1984, 1985 and 1986," he said. "A lot of the permitting process in the early years was not as good as it is now. The staff was not as well trained."

ROCKWELL'S RESPONSES

Rockwell International responded to accusations Friday that it violated federal and state environmental laws at its Santa Susana Field Laboratory in the Simi Hills. Here is how Rockwell responded point by point:

Count 1: The company did not submit adequate plans for the final cleanup of three toxic ponds in the area nuclear portion of the field laboratory within the required time limit.

Response: The accusation is incorrect. Health officials did not respond to the company's proposals.

Count 2: The company did not complete the cleanup of five toxic ponds in the area nuclear portion of the field laboratory within six months of approval of the cleanup plans.

Response: The plans were submitted, but the state Department of Health Services did not respond.

Count 3: The company did not notify the U.S. Environmental Protection Agency that hazardous wastes were being processed at a burn pit.

Response: A permit was submitted but the agency did not respond.

Count 4: The company did not modify operations of a hazardous waste treatment unit ordered by the Department of Health Services in 1983.

Response: The company could not find all the documentation, but maintains it responded to all regulatory agencies.

Count 5: The company did not obtain a permit to neutralize nitrogen tetroxide in the area nuclear portion of the field laboratory.

Response: The process does not need a permit, because the liquid is not a hazardous waste.

Count 6: The company did not obtain permits for two towers used to clean chemicals from ground water.

Response: Officials have not responded to the company's request for a variance.

Count 7: The company did not prepare contingent waste analysis plans for the ground water cleanup and nitrogen tetroxide systems.

Response: No response needed because the count was dropped.

Count 8: The company did not document daily and weekly inspections of hazardous waste tanks.

Response: Written records began June 19.

Count 9: The company did not submit final cleanup plans for two toxic ponds within the required time period.

Response: The accusation is incorrect.

Count 10: The company did not complete cleanups of five toxic ponds within 180 days of approval of the plans.

Response: The accusation is incorrect.

Count 11: The company did not obtain a hazardous waste permit for ground water cleanup towers.

Response: The accusation is incorrect.

Count 12: The company did not obtain a permit from the Department of Health Services for a ground water treatment system outside Building 59 in the nuclear portion of the field laboratory.

Response: Toxic chemical contamination in that area does not require a permit for treatment.

Count 13: The company did not submit a written report within 15 days on a release of radioactive waste at a storage area.

Response: No response needed because the count was dropped.

Count 14: The company violated state law by not obtaining a waste discharge permit for the Sodium Burn Pit where chemical and radioactive contamination have been detected.

Response: The health department referred this count to the California Regional Water Quality Control Board, because it does not have regulatory oversight.

DAILY NEWS 10/7/89

Rocketdyne president steps down

Schwartz takes job with Delaware firm

By STARR SPENCER
Daily News Staff Writer

After 32 years with the company, Richard Schwartz has resigned as president of Rockwell International's Rocketdyne Division to assume the presidency of Hercules Aerospace Co. in Wilmington, Del., officials said Saturday.

SCHWARTZ

Schwartz, 53, said his departure from Canoga Park-based Rocketdyne was based on career motives and was unrelated to Rocketdyne's problems stemming from the findings of radioactive and chemical contamination at the firm's Santa Susana Field Laboratory in the Simi Hills.

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Rocketdyne president quits, takes Delaware post

SCHWARTZ / From Page 1

"That did not enter into the decision process," Schwartz said. "Another opportunity has come up, and I thought it would be an excellent career move."

The Environmental Protection Agency has said there is no imminent public health threat from the Santa Susana nuclear research facility, but EPA officials have criticized Rockwell's monitoring of the site and say more tests are needed to determine the extent of the contamination.

Replacing Schwartz as president on Monday will be Bob Paster, Rocketdyne vice president of the Space Shuttle Main Engine Program, said Rocketdyne spokesman Pat Coulter. Paster is a Woodland Hills resident.

While no longer heading Rocketdyne after Monday, Schwartz said he will remain with the firm until Nov. 1 to "effect a smooth transition."

"I'm not leaving the company Monday," Schwartz said. "In a critical position like this, we have to make sure there's some turnover" as the post changes hands, he said.

Coulter said news of the resignation was read to Rocketdyne employees over its public address system Friday afternoon, and that Schwartz announced his resignation to his own staff Thursday.

Coulter also said that Schwartz's resignation was not connected to problems at the Santa Susana nuclear research facility.

"Absolutely not," he said. "I couldn't make that more clear. This is an offer that has come to him."

Hercules Aerospace Co. is a leading U.S. supplier and user of advanced composite materials. It also manufactures electronic systems and subsystems for commercial and military aircraft and propulsion systems for missiles, ordnance and space vehicles.

Hercules also builds the solid rocket motors for the Pegasus, a small air-launched rocket designed to send small commercial satellites into orbit. The rocket, which leaves a carrier aircraft such as a B-52, is scheduled for its first launch later this year.

Securities analysts said Hercules, with a broader product range than Rocketdyne, represented a sound move for Schwartz.

"He'll be covering a lot more technology than at Rocketdyne," said John Simon, senior vice president of Seidler Amdec Securities.

Simon doubted the contamination reports at Santa Susana prompted Schwartz' decision to leave Rocketdyne.

"No matter where someone goes these days, they'll have some sort of environmental problem on their hands," Simon said.

Patty Trent, securities analyst for Seidler, also said that Hercules could be a good move for Schwartz.

"Hercules isn't as advanced as Rocketdyne, in the sense it hasn't been in existence as long, so it could be more challenging," she said.

Trent also said that it could not be presumed that negative publicity surrounding Rocketdyne's Santa Susana facility resulted in Schwartz' departure.

Schwartz said he will also become a senior vice president of Hercules Aerospace's parent company, Hercules Inc., and will also be nominated for Hercules' board of directors.

With 10,000 employees, including 400 at the Santa Susana facility, Rocketdyne produces engines for the Space Shuttle program and electric power systems for the space station Freedom.

The Daily News reported May 14 that a U.S. Department of Energy environmental survey found toxic and radioactive contamination at the facility, three miles west of Chatsworth. The report said there was no imminent threat to the public but called for more testing.

Since then, state and federal health and environmental agencies have stepped up monitoring and oversight at Santa Susana and the DOE has announced it will conduct an extensive testing program. The EPA has assumed oversight of the cleanup program, and both the state Department of Health Services and the Regional Water Quality Control Board have ordered additional cleanup activities.

The EPA also inspected the site, declaring that there is no evidence of an imminent public health threat, but recommended that the company increase monitoring for radioactive contamination in the environment and improve many of its testing methods.

Seventeen new ground-water monitoring wells are being dug to find out if any radioactivity has seeped into the ground water, and new air monitors have been installed to detect contamination in airborne dust near soil contamination areas.

On Friday, Rocketdyne officials denied the state's claim of 11 violations of hazardous waste laws at the nuclear research facility. Coulter said the company has been trying to correct the problems but has gotten little help from the state.

Scott Simpson of the state Health Department's Toxic Substances Control Division said the violations are significant, but said that officials have found no evidence that they pose health dangers to workers or residents.

Schwartz joined Rockwell International as an engineer in the Rocketdyne division in 1957. He held aerospace management positions with Rockwell before being appointed Rocketdyne president in 1983.

SCHWARTZ'S CAREER HIGHLIGHTS

Here are highlights in the career of Richard Schwartz:

- **1936:** Born in New York City.
- **1957:** Received bachelor's in science in mechanical engineering from Cooper Union for the Advancement of Science and Art in New York.
- **1957:** Joins Rockwell International's Rocketdyne Division as an engineer.
- **1965:** Managed Rockwell's activation and test of Saturn II Program [illegible]
- **1966:** Design [illegible] and chief engineer of Saturn II program in Seal Beach.
- **1970:** Vice president and program manager of Saturn II Program in Downey. Received masters in business administration from Pepperdine University.
- **1973:** Vice president, Rockwell space systems and applications in Downey.
- **1974:** Vice president and program manager of Rockwell's NAVSTAR GPS program in Seal Beach.
- **1976:** Vice president and general manager of Rockwell satellite systems.
- **1978:** Executive vice president of Rockwell's shuttle orbiter division in Downey.
- **1981:** Vice president and general manager of Rockwell's launch operations, Kennedy Space Center, Fla.
- **1983:** President, Rockwell's Rocketdyne Division, Canoga Park.
- **1989:** Resigned from Rocketdyne Division to become president of Hercules Aerospace Co., Wilmington, Del.

Daily News 10/8/89

Tue Oct 3 1989

'Worst-case scenario' at Rocketdyne was avoided in fire under large acid vat

By Kevin Uhrich

Initial reports about a Thursday morning fire at Rockwell International's Canoga Park plant were blown out of proportion, said Pat Coulter, a spokesman for the aerospace company.

Although the Los Angeles City Fire Department at the scene reported that 1,200 people were evacuated and that as many as 10 people suffered serious injury, Coulter said the information was grossly inaccurate.

The Fire Department initially reported that a spill had occurred from a 3,000-gallon vat containing hydrofluoric and nitric acids, compounds used to clean engine parts for the space shuttle main engines.

That also was untrue, Coulter said.

By the time the emergency ended and officials could begin piecing together the events that led up to the 3:37 a.m. fire and subsequent evacuation of Building 591 on Canoga Avenue, Coulter said much of the information released to the media had to be corrected.

"I think if there was any confusion it was with the initial reports," Coulter said. But, Coulter said, considering the highly flammable and toxic chemicals the Fire Department was forced to deal with when the fire broke out, it was natural to expect a worst-case scenario.

Fortunately, he said, that scenario did not occur.

Although a fire erupted near the chemicals, it did not spark near either of the acids, Coulter said. The fire started on wooden supports under the acid vat, he said. However, Fire Department officials still do not know the cause.

Further, Coulter said, the injuries were not as extensive as initially reported. At first, Los Angeles paramedics said five people were killed and 10 people were seriously injured. It was also believed that 37 people received emergency medical treatment at the scene.

The 10 injuries, Coulter said, were not serious. The injured people were examined by a company doctor and taken to three different nearby hospitals for additional attention. All but one employee was released, and that injury was caused by a pre-existing medical condition that was believed to have been brought on by stress. Also, he said, all people received minor injuries that required attention at the plant.

The scene was cleared by cops and the workers on the second shift were back inside at about 1:15 p.m., about two hours before the regular shift change, he said.

Coulter lauded the company's emergency management procedure, saying all of the employees were orderly and professional in their evacuation of the building.

"We're very proud of our people. They responded exactly how they were expected to," Coulter said.

And, no environment. "There was absolutely no release of any chemical."

ENTERPRISE 10/13/89

ENTERPRISE 10/16/89

10-16-89

Assemblyman calls for state to step in on Rocketdyne cleanup

By Susan Chasen

The Enterprise staff

Assemblyman Terry Friedman, D-Sherman Oaks, this morning called for aggressive state involvement in the cleanup of Rocketdyne's Santa Susana Field Laboratory.

He challenged the federal government's ability to do the job, given its dual role as principal customer and enforcer at the facility.

"It's such a conflict of interest that we can't trust the DOE (Department of Energy) to do the job," Friedman said. "I hear that Rocketdyne may be one of the worst waste sites in the state of California."

Friedman, chairman of the Assembly Ways and Means subcommittee on health and welfare, called the hearing to gather information on what the state's role should be.

Assembly members Cathie Wright, R-Simi Valley, and Richard Katz, D-Sepulveda, participated in the hearing. Testimony from state and federal government agencies and environmental and citizens groups was still being taken at press time.

In his opening comments, Friedman proposed that the state develop a budget and work plan for monitoring the site.

He raised questions about how local planners allowed residential development so close to Rocketdyne, and voiced concern about confusion between the state and federal agencies responsible for knowing what's going on at the facility.

He also called for an epidemiological study to be conducted to see if there have been long-term negative health consequences for employees at Rocketdyne or nearby residents.

Transportation of hazardous material through densely populated communities and emergency response plans were also targeted for further investigation.

Katz proposed that the state join other groups in seeking intervenor status in proceedings on Rocketdyne's application to renew its license to operate its "hot lab" that prepares radioactive materials for use in nuclear weapons.

"Should there be any new nuclear work at all in densely populated

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Cleanup

Cont. from Page 1

areas like Los Angeles?" Katz asked.

He pointed out that the U.S. Air Force recommends a 5-mile buffer zone around facilities handling the sort of rocket fuels used in Rocketdyne's rocket engine test operations.

"There are 50,000 people living in that buffer zone," he said.

Wright said she is concerned both as a state official and as a resident of the area. She asked questions targeting the kind of safeguards that would be required if the facility is allowed to continue operating.

Mary Nichols, senior attorney with the Natural Resources Defense Council, testified that her organization is asking the Nuclear Regulatory Commission to redo its risk assessment and to prepare a full environmental impact report as part of its review of Rocketdyne's application to continue operations involving radioactive materials.

The NRDC is also raising the question why the license is being sought at all, considering the facility has no prospective commercial contracts, she said.

Nichols suggested the new license could be a ploy to put off completing cleanup efforts at the site. Also, she said the NRDC is concerned that, because of contamination at the Hanford nuclear facility in Washington state, could result in work being redirected to the Santa Susana facility in the Simi Hills.

Dennis Dickerson, branch chief with the state Department of Health Services, said he does not think the Rocketdyne site represents one of the worst sites in the state, as Friedman had suggested. He described the site as being in the "mid-range" of toxic sites in the Los Angeles area.

Rockwell to shut nuke lab

Cites community concern over Simi Hills facility; closure due in '90

By MARK BARABELL
Daily News Staff Writer

Rockwell International's laboratory for processing nuclear materials at the Santa Susana Field Laboratory in the Simi Hills will be closed within a year, company officials announced Friday.

Company officials — faced with challenges to their request for a 10-year extension of the "hot lab's" Nuclear Regulatory Commission license — said community concern over disclosure of toxic and radioactive contamination at the facility prompted the decision.

The request for a license extension for processing enriched uranium at the site will be amended to seek renewal only through Oct. 30, 1990, said officials of Rockwell's Rocketdyne Division, which operates the facility in the hills between Simi Valley and Chatsworth.

"In recent months there have been expressions of serious concern from the surrounding community about our nuclear work at SSFL," Rocketdyne's new president, Bob Porter, said in a statement.

"While the hot lab poses no threat to safety, health or the environment, we hope closure of the facility will allay concerns and will assure the public of our commitment to the community in which we live and work," Porter said.

Since the Daily News disclosed May 14 that a Department of Energy survey found contamination at 10 sites at the 42-year-old facility, Rocketdyne and state and federal regulatory agencies have faced growing criticism over the handling of nuclear materials near a heavily populated area.

The DOE report said contami-

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Rockwell to shut down Simi Hills nuclear lab

ROCKWELL / From Page 1

nation posed no immediate threat to the public, but said the company's monitoring program was inadequate to determine the extent of contamination and more tests were needed.

Rep. Elton Gallegly, R-Simi Valley, who played a leading role in demanding full disclosure and cleanup of contamination at the field lab, said he has been working for several weeks to persuade Rocketdyne to close the hot lab.

"I am pleased that Rocketdyne understands its obligation to remain a corporate good citizen of our community," he said.

"Although I'm convinced the company has operated the hot lab in as safe and responsible a manner as possible, it is becoming more and more obvious that nuclear operations of this type should not be taking place in an area where 500,000 people live within a 10-mile radius," Gallegly said.

Assemblyman Terry Friedman, D-Sherman Oaks, who conducted an informational hearing last week into Rocketdyne operations, said he would push for state action to speed closing of nuclear activities at the facility, which also is used for rocket research.

"I'd rather them close it at the end of this month," Friedman said. "It's a recognition by Rocketdyne that the community and state will not stand for the continuation of that facility.

"I welcome the step but I believe it should be closed sooner. There still remains much to be done to clean up the ground water and surface water. I don't have the confidence in the Department of Energy because of its conflict of interest to do that. So what's vital is for the state to play an active watchdog role."

Assemblyman Richard Katz, D-Panorama City, who has oversight of state Department of Health Services operation, said Rocketdyne's timetable was acceptable.

"I think it's a big win for the Valley," Katz said. "I think what happened is that after (last week's) hearing, Rocketdyne realized we weren't going away. They've decided they want to take a new approach to their relationship with the community."

Los Angeles City Councilwoman Joy Picus, whose district includes West Hills near Santa Susana, applauded the company's decision in response to community concerns.

"I've lived in Woodland Hills for 27 years and have found Rockwell International to be a good neighbor," she said in a statement. "Their agreement to close the lab demonstrates that they are continuing in that role."

In the five months since the contamination problems were reported, federal, state and local officials have formed a task force to monitor the facility, and the Energy Department agreed to conduct a full environmental study of the site.

Rocketdyne dug 17 new monitoring wells, agreed to a peer review of its program and pledged to clean up the remaining contamination from a nuclear program that dates back to the 1950s.

The company operated up to 16 reactors at the nuclear facility between 1952 and 1983. Most of the nuclear facilities have long since been mothballed and extensive areas of contamination cleaned up.

But Rocketdyne has maintained its license to handle radioactive material in the hot lab, where workers with specially shielded equipment strip the metal cladding from irradiated fuel elements.

In announcing the decision, Rocketdyne officials said almost all work in the hot lab ended in 1986. The license extension through next year will allow the company to "complete current work in progress" and prepare a plan for decommissioning the facility, the company's statement said.

In June, Rocketdyne applied for a 10-year extension of its license to handle special nuclear materials at the hot lab.

The application was immediately opposed by a group of San Fernando Valley residents, alarmed at the proximity of radioactive materials to such a populated area and the disclosures of past contamination.

Their petition has triggered controversy within the NRC.

Peter B. Bloch, an administrative law judge considering the license renewal, ordered Rocketdyne in September to provide a complete history of radioactive spills at Santa Susana.

The company provided only a list of chemical spills, saying the any radioactive spills were trivial and not reportable under the judge's orders.

Bloch issued a new order demanding a list of all spills, regardless of whether they exceed NRC standards.

An NRC appeals panel then stepped in, asking Bloch to justify his "judicial activism" and explain under what authority he mandated the list.

Bloch granted community activists legal status to challenge Rocketdyne's license renewal. The NRC will determine whether or not to grant the extension.

CONTAMINATION AT SANTA SUSANA

Here is a chronology of key events involving Rockwell International's Santa Susana Field Laboratory since the discovery May 14 of radioactive and chemical contamination at the facility in the hills between Simi Valley and Chatsworth:

■ May 14: The Daily News reports that a 1985 environmental survey of Santa Susana by the U.S. Department of Energy found significant levels of radioactive and chemical contamination at the 290-acre nuclear research and testing site.

■ May 16: Rep. Elton Gallegly, R-Simi Valley, demands a copy of the survey from DOE officials and the Daily News reports that Rockwell's Rocketdyne Division, which operates the lab, has been cited for 50 violations by the Nuclear Regulatory Commission since 1978.

■ May 19: U.S. Environmental Protection Agency officials say they did not know the extent of radioactive work at Santa Susana when they decided in 1981 not to designate the facility a Superfund cleanup site.

■ May 19: State health officials say they were unaware of contamination at Santa Susana and began an inquiry.

■ June 10: Rocketdyne officials acknowledge that tests in September turned up previously undisclosed areas of radioactive contamination.

■ June 22: The EPA, under strong pressure from Gallegly, agrees to begin a full-scale review of contamination.

■ July 1: State and federal officials agree to form a task force, headed by the EPA, that will develop a complete blueprint of contamination and determine the responsibility of each agency in cleaning up the site.

■ July 7: Company documents show that radioactive "hot spots" up to 200 times above natural occurring levels were found the year before in soil near a septic system leach field above Simi Valley.

■ Aug. 5: The Energy Department, in a draft report on cleaning up facilities nationwide, classifies certain contaminated areas of the facility as urgent. Family One property that could cause "near term adverse impacts" to the public health and environment if not cleaned up.

■ Aug. 12: The Energy Department, in a three-paragraph report in Gallegly, says Santa Susana poses no threat to the surrounding community.

■ Aug. 17: State leaders officials ask the EPA to explain why Rocketdyne rejected their recommendation to dig a monitoring well 50 feet from a drainage gorge that may be contaminated, and instead put the well 900 feet from the gorge.

■ Aug. 30: State health officials accuse Rocketdyne of violating 11 hazardous waste laws at Santa Susana.

■ Aug. 31: A new EPA report concludes that Rocketdyne's environmental monitoring is inadequate and unable to guarantee that contamination won't spread to nearby communities.

■ Sept. 19: Rocketdyne agrees to undertake a series of new steps to monitor radioactive contamination at Santa Susana, including testing vegetation and animals near the facility for exposure to radiation.

■ Sept. 13: The Daily News reports that a 1985 internal document shows the company withheld public disclosure of nuclear-like contamination at Santa Susana one of the biggest potential risks in coping with the problem.

■ Sept. 19: The Nuclear Regulatory Commission judge reviewing Rocketdyne's request for a renewal license to handle radioactive materials orders a full proceeding.

■ Sept. 30: The Nuclear Regulatory Commission judge grants those San Fernando Valley residents the right to oppose Rocketdyne's license renewal request.

■ Oct. 1: Contaminated waste from aging nuclear facilities at Santa Susana has been removed in the past two months in a stepped-up environmental program as part of an accelerated $15.5 million cleanup, company officials report.

■ Oct. 17: At a legislative hearing, Simi Valley area Assembly members accuse state regulators of failing to take actions to adequately monitor environmental contamination.

■ Oct. 20: Rocketdyne officials announce they will close down the nuclear "hot lab" at Santa Susana within a year.

DAILY NEWS 10/21/85

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Rocketdyne scraps 'hot lab' plans

By Susan Chasen

Rocketdyne, in a surprise announcement on Friday, revealed that it is withdrawing its highly controversial request to renew its permit to operate a nuclear "hot lab" at the Santa Susana Field Laboratory, and is planning to shut the "hot lab" down in one year.

The announcement was met by widespread enthusiasm among opponents of Rocketdyne using radioactive materials at its sprawling site in the hills above Simi Valley, but there was also some skepticism regarding the company's motives.

Rocketdyne officials had little to say as to what prompted the move.

The company, a division of Rockwell International Corp., is going to ask for an extension to Oct. 31, 1990 to complete a current research contract and prepare a full-scale plan for decontaminating the lab and shutting it down.

Rocketdyne president Bob Foster said the company's nuclear work has been declining in recent years anyway and acknowledged that community opposition played a role in the decision. He also repeated company assurances that the lab doesn't pose a threat to health or the environment.

"We hope closure of the facility will allay concerns and will assure the public of our commitment to the communities in which we live and work," Foster said in a prepared statement.

Shortly after Rocketdyne's announcement, Rep. Elton Gallegly, R-Simi Valley, announced that he has been trying for several weeks to get Rocketdyne to scrap its relicensing efforts and to simply shut the lab down.

The company had requested relicensing from the Nuclear Regulatory Commission.

"Although I'm convinced the company has operated the 'hot lab' in as safe and responsible a manner as possible, it is becoming more and more obvious that nuclear operations of this type should not be taking place in an area where 100,000 people live within a 10-mile radius," Gallegly said in a press release.

Several groups opposing a new license for Rocketdyne are very pleased with the news and see it as a sign that concerted efforts among

(Please see HOT LAB, Page 12)

Rockwell plans to cease all Simi Hills nuclear work

By [illegible]
Daily News Staff Writer

Rockwell International will end its 40-year nuclear era at the Santa Susana Field Laboratory in the Simi Hills and completely decommission all facilities for handling radioactive materials, a company official said Saturday.

Officials of the company's Rocketdyne Division, which operates Santa Susana, will meet Monday to formulate plans to permanently cease nuclear operations at the mountain laboratory three miles west of Chatsworth, said spokesman Pat Coulter.

"Our intent is to do an on-going nuclear work at Santa Susana," Coulter said. "We're going to close it up, return the area to it's pristine condition and make the facilities capable of being released for unrestricted use."

In a written statement released Friday, Rocketdyne's new president, Bob Paster, announced the company will withdraw its Nuclear Regulatory Commission application for a 10-year license renewal for its "hot lab" — a

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Rockwell to end nuclear era at laboratory in Simi Hills

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heavily shielded workshop for handling radioactive materials.

Paster cited growing public concern over the proximity of the nuclear facility to the heavily populated San Fernando and Simi valleys as the main reason the company decided to close the hot lab within a year of the NRC extended its license until Oct. 20, 1991.

Rocketdyne had operated Santa Susana with only sporadic criticism over four decades until the Daily News reported May 14 that a U.S. Department of Energy survey had found radioactive and chemical contamination in the soil and ground water beneath the facility. The DOE survey said there was no immediate threat to public health but that more tests were needed because monitoring of contamination had been inadequate.

In a series of follow-up investigative articles, the Daily News disclosed that state and federal health and environmental officials were unaware of the extent of the contamination at Santa Susana and had done little independent monitoring.

Rocketdyne's statement Friday had left in question whether the company planned to end nuclear operations on the entire 290-acre nuclear reservation. Besides the hot lab, Rocketdyne operates a complex of more than a dozen buildings under the control of the U.S. Department of Energy and not subject to the NRC.

In the past, Rocketdyne and DOE officials had said they did not know whether nuclear research at the facility would continue in the future, although they promised that all contamination problems would be cleaned up.

In an interview Saturday, Coulter said the company would continue research into rocket propulsion systems on the portions of the 2,600-acre field laboratory that are controlled by the National Aeronautics and Space Administration and the U.S. Air Force.

"We're delighted if it means that they're going to get out of the nuclear business in this highly populated area," said Northridge resident Lucille Lit, one of three San Fernando Valley residents who had formally intervened in the hot lab relicensing process.

Cleanup of the nuclear facilities at the site will continue as scheduled, company officials said. The DOE has prepared a $45.5 million plan to clean up most of the facilities over the next five years. But ultimately the cleanup could take years longer, officials said.

Lit said regardless of what happens with the licensing case, local citizens would continue to keep tabs on cleanup operations to ensure that they are completed as soon as possible and that no new nuclear work is contemplated at the site.

"We need more local people and our local regulatory agencies in charge of oversight," Lit said. "I just want to make sure that they aren't back in business a year later."

News that the company has given up seeking a license renewal for the hot lab was a clear victory for the intervenors, three average citizens who had succeeded in getting the NRC to grant them legal privileges to oppose the company in formal proceedings conducted by an NRC administrative law judge.

Lit, Jerome Raskin of Northridge and Jean Scott of Bell Canyon were granted intervenor status last month, and had been preparing for a long and complicated proceeding that would last at least 10 months.

"I think there were a lot of people who said we didn't have a chance," Scott said. "But I thought we did have a chance. I was definitely prepared to go all the way. I'm thrilled that this has happened, because in my mind any time you can stop plutonium and uranium from possibly affecting the entire San Fernando Valley, that's a victory."

NRC officials said the intervenors' case would remain in effect until the company files an amendment to it's license renewal application and Judge Peter B. Bloch has a chance to review it.

"It's up to the judge as to what to do," said Greg Cook, spokesman for the NRC regional office in Walnut Creek. "There will be some discussion with the parties even if it seems there is no reason for continuing the case."

The company operated up to 16 small nuclear reactors at the field laboratory from the early 1950s to the mid-'80s. Most of the facilities had fallen into disuse in the past 15 years and the company and the DOE were in the process of slowly decommissioning certain facilities.

Since disclosure last May of the DOE survey of Santa Susana, the U.S. Environmental Protection Agency has assumed oversight of the cleanup at the urging of Rep. Elton Gallegly, R-Simi Valley.

State regulatory agencies also began aggressive investigations into contamination problems in the nuclear area.

Pressure from the state mounted last week when Assemblyman Terry Friedman, D-Sherman Oaks, conducted a hearing in Van Nuys on nuclear operations at the site and called for tough new state regulations governing such facilities.

Assemblyman Richard Katz, D-Sepulveda, called on state Health Department Director Ken Kizer to begin an investigation into the health of past and present Rockwell workers and asked Gov. George Deukmejian to formally intervene in the hot lab relicensing proceeding.

The hot lab, a heavily shielded workshop where irradiated nuclear fuel can be dismantled and processed into reusable radioactive materials, is the only NRC-licensed facility at the field laboratory.

Most of the nuclear reservation is controlled by the DOE and not under NRC jurisdiction. Eleven buildings where DOE research was conducted have been decontaminated and released for unrestricted use.

But the company and the DOE plan to decommission six additional buildings currently out in use. And plans are underway to decommission the hot lab and a nine-building nuclear waste disposal and packaging complex where extensive soil contamination problems have been identified.

In addition, a DOE environmental survey found soil contamination problems at a Sodium Burn Pit where waste chemicals and radioactive material were disposed of in the 1960s.

The company also plans to clean up six areas discovered during a complete radiological survey.

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DAILY NEWS 10/24/89

SOUTHLAND

June finale set for 'hot lab' work

2 projects scheduled for completion at Rockwell's Simi Hills nuclear research site

By TONY KNIGHT
Daily News Staff Writer

The only two projects involving radioactive materials at Rockwell International's nuclear research laboratory in the Simi Hills will be completed by June, company officials said Monday.

Top executives of the company's Rocketdyne Division, which operates the Santa Susana Field Laboratory, three miles west of Chatsworth, met Monday to discuss the future of nuclear work at the mountain site, said Pat Coulter, Rocketdyne spokesman.

Coulter said the company does not have any contracts for nuclear work beyond the two projects and does not expect additional nuclear work in the future.

"Talking for the whole hill up there, we have no other contracts working," Coulter said. "We are not actively seeking any other contracts."

Faced with community opposition, the company announced plans Friday to permanently close its "hot laboratory," which is licensed by the U.S. Nuclear Regulatory Commission. The hot laboratory is a heavily shielded workshop where highly radioactive nuclear fuel rods can be dismantled and their contents processed into other usable materials.

On Saturday, Coulter said in an interview that the company intended "to do no more nuclear work at Santa Susana."

After a meeting of company executives Monday, he said the company's position is to seek no new nuclear contracts. "That doesn't mean that DOE won't come down and want to do additional work at the hill," he said.

Nuclear research and engineering has been carried out at more than a dozen other buildings on the 290-acre nuclear research portion of the field laboratory under U.S. Department of Energy jurisdiction.

Company and DOE records obtained by the Daily News have shown problems with radioactive contamination in the soil in several areas and at several buildings. The DOE released a $45.5 million cleanup plan last month.

Nuclear research has been carried out on 290 acres of the 2600-acre field laboratory for the past 40 years. The DOE owns an option to buy 90 acres of the nuclear reservation and has virtually complete control over this area.

Federal officials and company executives have said that there is no evidence that contamination problems at the field laboratory pose an imminent threat to public health. But a DOE environmental survey released in May recommended more testing and monitoring to determine the extent of the problem.

Efforts to reach a DOE spokesman in Oakland Monday were unsuccessful. In the past, DOE officials have said they have no plans for major nuclear research at the site and their main activities at Santa Susana is the work to assess nuclear cleanup and decommissioning of existing facilities.

Until last week, company officials had held out hope that they could get a major new contract for work at the hot lab, which is outside the DOE-optioned area.

But the company's application for 10-year extension of its NRC license was being challenged by three San Fernando Valley residents who were granted formal

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Last projects due for completion in June at Rockwell nuclear lab

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intervener status last month by an NRC administrative law judge.

The action by Judge Peter B. Bloch started what was expected to be 10 months of expensive and complicated legal wrangling over the relicensing application.

Citing community concerns and the lack of business, Rocketdyne President Bob Paster said the hot lab would be permanently by October 1990.

Company officials said they need a year to prepare a decontamination and decommissioning plan for the hot lab and to finish up an experimental program on radioactive wastes.

The TRUMP-S (Transuranic Management by Pyropartitioning — Separations) project will involve 75 grams of depleted uranium, 5 grams of plutonium, 4 grams of neptunium and 4 grams of americium, said spokesman Paul Sewell.

Depleted uranium has only a faint trace of radioactivity, but the other three materials emit stronger doses of radiation, he said. The materials would be used in experiments in the hot lab beginning in January and ending in June.

The nuclear materials are already at the field laboratory and stored in Building 59, Sewell said.

The experiments are being carried out under a contract with the DOE and Japan's Kawasaki Heavy Industry and Central Research Institute of Electric Power Industry (CRIPI). The project, also known as the actinide burner program, is exploring ways to reduce the volume of high-level radioactive wastes from nuclear reactors and other sources.

Wed. Oct. 25, '89

Rocketdyne

NRC: truck violated U.S. limits

By Lori Zuboff

Levels of radioactivity from a truck that crashed in Pennsylvania while carrying radioactive material from Rocketdyne's Santa Susana Field Laboratory exceeded those allowed by the U.S. Department of Transportation, a spokesman from the Nuclear Regulatory Commission said today.

"Measurements of the truck after the accident have been confirmed as being 230 milligrams per hour," said Lee Bettenhausen, a spokesman for the NRC in Pennsylvania. The Department of Transportation does not allow vehicles carrying radioactive equipment to exceed 200 milligrams per hour, Bettenhausen said.

A Rocketdyne spokesman could not comment today on the accident involving the truck, which was carrying radioactive material from the company's Field Laboratory in the hills above Simi Valley.

The truck hit a bridge in Pennsylvania Tuesday en route to Alloca Corp., a company that will be

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ENTERPRISE 10/25/89

10/27 DAILY NEWS

Activists rally in Simi Hills

Seek promise to end nuclear work at site

By TOM KNIGHT
Daily News Staff Writer

Anti-nuclear activists rallied Thursday in front of Rockwell International's research laboratory in the Simi Hills demanding that the company cease nuclear work in the San Fernando Valley area.

About 35 protesters, including rock star Tom Petty, challenged Rich Power, vice president of the company's Rocketdyne Division which operates the facility, to promise in writing that the company would end its nuclear operations permanently.

The protesters praised the company's announcement last week to shut down within 12 months the Hot Laboratory, a heavily shielded workshop where highly radioactive materials can be manipulated by remote control.

But they vowed to continue their fight until the company, which also conducts research into rocket engines at the 42-year-old Santa Susana complex, cleans down and decontaminates all of its nuclear facilities.

"What we are here today to do is to tell Rockwell that this issue is not dead," said Dan Wallace, chairman of the Rocketdyne Cleanup Coalition, the San Fernando Valley activist group that organized the event.

"We are not opposed to people working in the community on engineering, manufacturing and testing of rocket engines," he said. "But we want to clear all of the nuclear side of Rockwell's business in our community."

Wallace released a letter delivered to Power earlier in the day calling for a cease in nuclear operations and raising several questions regarding the extent of nuclear work at the mountain laboratory, which is three miles from Chatsworth, and at company facilities in Canoga Park.

The letter signed by Wallace and Richard Saxon, president of

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Dan Wallace, chairman of the Rocketdyne Cleanup Coalition, spoke Thursday at the Simi Hills facility.

Activists rally at Rockwell site; seek end to all nuclear operations

ROCKWELL / From Page 4

the Los Angeles chapter of Physicians for Social Responsibility, often demands citizen membership on a task force of state and local agencies formed to oversee cleanup of the contamination problems at the site.

The letter also demands that the company fund an independent study to determine the long-term health effects of 40 years of nuclear research at the laboratory on workers and the nearby community.

Company officials said that they could not comment immediately on the letter.

"The letter was delivered to the lobby here and ultimately to Mr. Power's office," said Pat Coulter, Rocketdyne spokesman. "But Mr. Power is in meetings all day today and he won't really read the letter until tonight."

Community concern about Rockwell's nuclear operations has grown since last May when the Daily News disclosed that a U.S. Department of Energy environmental survey had found problems with radioactive soil contamination and possible ground-water contamination at the field laboratory.

The report said that there was no evidence of an imminent public health threat from the nuclear reservation where research on as many as 14 experimental reactors has been carried out since 1948.

But it recommended further testing and monitoring to determine the extent of the problems.

The company applied in June for a 10-year extension of its U.S. Nuclear Regulatory Commission license to operate the Hot Laboratory. Three San Fernando Valley residents, with the backing of the coalition, filed papers opposing the re-licensing and were appointed legal intervenors last month by an NRC judge.

Facing a protracted legal case to obtain a new license and growing community opposition, Power announced last week that the company would seek a new license through Oct. 30, 1991 and then permanently close the hot lab.

The company said that it would use the hot lab from January to June for one minor nuclear research project, which had been commissioned jointly by the DOE and two Japanese firms.

The protesters said that they do not want the company to proceed with the program, known as TRUMP-S for Transuranic Management by Pyropartitioning-Separation.

Although the company has not released all the details of the TRUMP-S project, the protesters said that they feared that it involved the incineration of radioactive wastes.

Incineration could create airborne radioactive particles that could be released to the atmosphere, said Barbara Paskin, an engineer and member of the Southern California Federation of Scientists.

"I'm very concerned about it," Paskin said. "I feel that they can't help but release some radioactivity into the environment."

Rocketdyne officials have said that the TRUMP-S project involves experiments to reduce the volume of nuclear wastes.

Asked Thursday whether the experiments involve incinerating the materials, Coulter said that he would not comment until he had met with Power to discuss the coalition's letter.

The letter asks whether Rocketdyne would be able to apply for a new license for the hot lab at a later date, and asks Power to promise in writing that this will not be done.

It asks whether any other nuclear work is being done at other buildings at the field laboratory under the jurisdiction of the U.S. Department of Energy or at the company's facilities in Canoga Park.

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DAILY NEWS 10/25/89

Lab critics still pressing Rockwell

Detailed information on spill at Simi Hills facility awaited

By TONY KNIGHT
Daily News Staff Writer 10/25/89

Despite repeated requests from state and federal agencies, Rockwell International has yet to provide detailed information about how radioactive material was spilled in the soil at the company's laboratory in Simi Hills.

Company and government documents released in recent months have disclosed problems with low-level soil contamination in several areas of the nuclear research portion of the Santa Susana Field Laboratory, three miles west of Chatsworth.

Community activists, the state Regional Water Quality Control Board, the federal Nuclear Regulatory Commission and the Environmental Protection Agency all have asked Rocketdyne, the Rockwell division that runs the facility, for a full accounting of how the spills occurred.

The question has been raised since the Daily News disclosed May 14 that a Department of Energy survey found radioactive and chemical contamination at the site. The survey said the contamination did not pose an immediate threat to the public and more tests were needed to determine the extent of the problem.

Regulatory officials said it is important to know the quantity of spilled material, and how long it has been in the environment, in order to plan the scope of monitoring programs and to ensure that the radioactive material is adequately cleaned up. They also said knowing how spills occurred would allow them to evaluate the company's past safety performance.

Although company officials have said they would respond to the EPA and NRC requests, the detailed spill information on the 290-acre nuclear research portion of the field laboratory, where as many as 10 reactors were operated from the early 1950s to the mid-1970s, has not been provided.

Company officials refused last week to discuss the details of the spills, saying their responses were being prepared to the NRC and

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Activists, agencies press Rockwell for detailed information on spill

ROCKWELL / From Page 1

DOE inquiries.

"We're not going to comment on that before it's released," said Rocketdyne spokesman Paul Sewell.

Anti-nuclear activists, who scored a victory last week when the company decided to close its nuclear Hot Laboratory facility, say they will not cease their efforts until the spill data is disclosed.

"I think it's important that everybody finds out these answers," said Bell Canyon resident Jon Scott, who was designated by the NRC as a legal intervenor in the company's now-defunct bid to relicense the hot lab.

"Just because they closed the hot lab doesn't mean there's no unanswered questions," Scott said.

In past interviews about the known contamination problems, company officials have not given clear explanations of how the spills occurred, saying they happened years ago.

They have explained that the contamination was low level, and although it was allowed to remain in the soil, in some cases for more than 20 years, it has not presented a health threat to the public or workers.

Whether the company will ever be able to offer a full accounting of each spill is in doubt because the regulations that existed years ago did not require highly detailed record keeping, federal officials said.

"There was an approach that if the spill was below the level that could present a risk to the public, it wasn't something to worry about," said NRC spokesman Greg Cook.

"Nowadays, we approach these things with an entirely different perspective," he said. "We say, you've got to document all of these things in great detail, otherwise where's the assurance?"

Almost all of the nuclear work at Santa Susana was done for the U.S. Department of Energy and its predecessor, the Atomic Energy Commission. DOE officials said last week that they don't think they will ever be able to compile an accurate accounting of every spill.

"These events go back so far that in some instances the records just aren't clear as to how they happened," said Richard Nolan, assistant manager of the DOE's Oakland field office. "I would expect that in many cases the records on this stuff simply don't exist."

According to federal and company documents, the DOE, Rockwell's customer and partner in the nuclear area at Santa Susana, also asked for an accounting of spills for a May 1988 environmental survey. The DOE was not given all the available data on known spills or the information on how they occurred, the documents show.

"It really comes down to that fundamental point: How did this happen?" said James D. Werner, a member of the DOE environmental survey team from headquarters in Washington D.C. that visited the 2,600-acre field laboratory in May 1988.

The survey team's report, released after the Daily News disclosed its contents, indicated there were problems with radioactive soil contamination, as well as the potential for contamination of ground water. The report found no evidence of an imminent public health threat, but recommended further investigation to determine the extent of the problem.

"I wonder if there's something that might be in such an inventory that they're afraid of releasing," said Werner, now a consultant for the Natural Resource Defense Council, a Washington-based environmentalist pressure group.

"Clearly, the implicit message from that entire survey report was 'Get out there and start investigating.' They got that message loud and clear the last day that we left the site in May 1988," Werner said. "They didn't have to wait for the EPA or the NRC to ask for this stuff."

The DOE survey identified 10 areas of actual or potential contamination where further investigation was called for. Subsequent DOE reports have identified three of the areas as major contamination problems that will require up to $15 million to clean up.

But the DOE survey report did not contain information on extensive soil contamination at the company's Radioactive Materials Disposal Facility, a soil spill near the Building 64 nuclear storage vault that has subsequently been cleaned up, or soil contamination problems near the Hot Laboratory.

Sketchy information on these spills has come out since May in newly released federal and company documents and interviews with company officials.

Company officials have maintained that they didn't have to report these contaminated areas to the DOE survey team because they were already documented.

But DOE officials in Washington and Oakland said the information should have been in the report.

Two weeks after the disclosure of the DOE survey, the state Regional Water Quality Control Board asked for a "detailed explanation of all accidental releases" and various other documents on the contamination problems.

The company submitted volumes of data on nuclear operations, but said detailed descriptions of accidental releases and cleanup operations was "beyond the scope of our response to your inquiry, due to the magnitude of the information requested."

Water board officials accepted that explanation, and have since relinquished primary responsibility for cleanup at the area to the EPA and the Toxic Substance Control Division of the state Department of Health Services.

EPA inspectors toured the site in July, concluding that the company's environmental monitoring program to detect radiation was inadequate. The company later agreed to a series of measures to improve monitoring.

EPA radiation specialist Gregg Dempsey, who conducted the July inspection, concluded, "Rocketdyne does not have a good 'handle' on where radiation has been inadvertently or intentionally dumped on site. Most of the evidence on site spills is incompletely documented or anecdotal."

At the urging of Rep. Elton Gallegly, R-Simi Valley, EPA assumed oversight of the cleanup in July. EPA officials, disconcerted over the lack of spill data, asked the DOE to provide a complete audit of environmental and radiation contamination problems at the site.

In an Oct. 13 letter to Assemblyman Terry Friedman, D-Sherman Oaks, the acting manager of the DOE's Oakland field office, Donald W. Pearman, Jr., said a "comprehensive inventory" was being prepared.

DOE officials said last week that the inventory was in the process of being prepared and they did not know when it would be provided to the EPA. Efforts were unsuccessful last week to reach EPA officials, who were not in their offices in San Francisco because of earthquake damage to the building.

Community activists thought they would get a complete accounting of the spills after NRC Judge Peter B. Bloch issued a Sept. 15 order that the company provide a complete inventory of accidental releases going back to 1969.

The company responded Sept. 28 with a list of chemical spills and no information on radiation releases. Robert Lancet, the company's director of nuclear safety and licensing, told the judge that all the radioactive spills were too trivial to list under specific terms set out in the judge's order.

In a follow-up interview, Lancet declined to answer when asked specifically if the Radioactive Materials Disposal Facility and Building 64 spills were too trivial to mention under the terms of the judge's order.

Bloch subsequently issued an Oct. 4 order asking for the spill information, regardless of how trivial the incidents were.

Sewell said the information would be provided to the judge by Nov. 4. He would not discuss whether the Radioactive Materials Disposal Facility or Building 64 cases would be mentioned.

"You can assume what you want to," Sewell said. "What I'm telling you is that we're going to give Judge Bloch what he asked for."

Bloch said last week that his order stands, in spite of the fact that the company has announced plans to abandon its effort to get the hot lab relicensed.

"They could either answer it, or make a motion that it's no longer relevant any more," Bloch said. "But there has to be an answer."

Because historical data on past spills is incomplete, the company was ordered by the DOE in 1987 to complete a radiological survey of the 90 acres under DOE control.

That report was completed in Sept. 1988, and released to the Daily News last week in response to a Freedom of Information Act request.

The survey data provided the first details on the spill that contaminated about 4,000 square feet of soil at Building 64. The company excavated that soil in July then shipped it to a nuclear-waste dump.

The radiological survey stated that the soil had become contaminated in the 1960s from a special drum containing an irradiated fuel element that had been stored in the yard outside the building.

"Water, which occupied the void space in the drum, leaked out through a rusted drain plug in the bottom," the September 1988 report said. "Mixed fission product activity was released to the immediate area. A large area was excavated for burial. Slight contamination still exists in that area."

The radiological survey did not include the disposal facility or the hot lab, DOE officials said, because these facilities are outside the DOE leased-optioned area.

Sewell refused to say whether similar surveys were done at the other facilities, particularly at the disposal facility, a nine-building complex where nuclear wastes are processed and packaged for shipment to dump sites.

Documents released in past weeks by the DOE in response to FOI requests from the Daily News indicate that the most widespread and highest level soil contamination problems are at the disposal facility.

The radiological survey supported the comments of federal officials that documentation of past spills and contamination problems will be difficult to gather.

Referring to the Sodium Burn Pit, one of the major contamination problems identified in the DOE survey, the report said it was unclear how radioactivity was disposed in the soil at that location.

"In the late 1970s, a concerted effort to clean up the Burn Pit was launched," the report said. "The gate was locked, and only documented items and materials were admitted. Occasionally, however, material of unknown origin was deposited at the site gate."

The survey covered four old salvage and storage yards, and found one mud puddle where contamination was above permitted levels. There was no explanation of how the mud puddle was contaminated.

"Although controls were instituted to prevent storage of radioactively contaminated materials in these areas, some contamination incidents are thought to have occurred," the report said.

The survey report also found various contaminated concrete vaults, underground lines and air filters in old buildings where radiation was above levels that would allow unrestricted use of the facilities.

> *"I think it's important that everybody finds out these answers. Just because they closed the hot lab doesn't mean there's no unanswered questions."*
>
> — Jon Scott
> Bell Canyon resident

ENTERPRISE 10/30/89

One of several fires to burn throughout Ventura County

By Alisha Semchuck and Suzane Bricker
The Enterprise Staff

Brush fires swept the Southland, injuring two firefighters, downing power lines, burning more than 4,000 acres and posing a threat to residences near downtown Moorpark.

"As far as I know, as of 8 p.m. there were four brush fires," said Laura Spawn, Ventura County Fire Department public information officer. "Five were reported, but we think one burned out because we couldn't locate it."

Spawn said today she did not know the names of the two injured firefighters and had no report on whether they were treated at a hospital.

She did say both only received minor injuries: one had a burn and the other an injured knee.

The Simi Valley and Moorpark areas were heavily saturated with fires that continued to erupt sporadically throughout the day on Sunday.

Twenty acres burned close to downtown Moorpark, when a fire broke out in the the area of Everett Street around 3:30 p.m., Spawn said.

Threatening winds blew the fire towards downtown and some homes were threatened, Spawn said, but Los Angeles City Fire Department hand crews were able to extinguish the blaze at 4:58 p.m.

County Fire Investigator Bill Hager said two juveniles are suspected of playing with fire in that blaze, which engulfed 20 acres.

The heaviest brush fire in a quarter-century charred more than 30 acres in the area of the Calleguas Municipal Water District near the Moorpark Freeway, across from the East Valley Sheriff's Station, Spawn said. The blaze started at 4:25 p.m.

"It could have been really bad," she said. "The fire was heavily fueled by the 25-year-old brush.

"We were really lucky to get that one out," she added.

The late afternoon blaze was contained at 5:28 p.m., said Spawn, who indicated she knew of no homes affected by the blaze.

However, Spawn said sporadic fires continued to spring up in the area, even after the major blaze was extinguished.

John Wade, a public information officer for the Ventura County Fire Department, said Sunday about 376 acres burned near Black Canyon and Box Canyon in the unincorporated Sumaca Knolls portion of Simi Valley.

"We know of no evacuation in the Black Canyon area and nothing was damaged," Spawn said today.

Fourteen engines, two bulldozers and two helicopters responded to the call, reported at 4:30 a.m., which took firefighters more than eight hours, or until 1 p.m., to extinguish, Wade said.

Because of the wind direction, Wade said, smoke drifted into Agoura Hills and could not be seen from most areas of Simi Valley.

Investigators listed the cause of the Black Canyon fire as undetermined, but Wade said, it "started near some power lines" possibly struck by a bird.

At the same time, a fire storm blanketed the mountainside along Pacific Coast Highway in Malibu, about five miles north of the Ventura County line.

Four structures were lost in the blaze, which charred more than 4,000 acres near Deer Creek Road.

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Fires

(Cont. from Page 1)

and Pacific View in the Malibu area, said Spawn, who said she knew of no evacuations in the area.

Todd Overheitzer, 32, grew up around Malibu. Though he moved away for a while, he recently returned to his childhood neighborhood near Big Rock Canyon.

As he watched the flames dance along the brush, Overheitzer said he hadn't had the opportunity to see the condition of his residence.

"I just got here, but heard that the fire went right past my house," Overheitzer said.

"I've been through a lot of fires that went through here since 1978," he recalled. "The worst one was in 1982 when the Leo Carrillo campgrounds burned. I was right in the middle of that one. It was like nothing I ever saw. Flames were overhead. My buddy and I had to hike in from Decker Canyon to help evacuate Leo Carrillo."

Monday morning a crew of six engines were reportedly still in the Malibu area mopping up the effects of the fire, Spawn said.

The more than 30 mph winds that were partially responsible for spreading the blazes also knocked power lines down in Simi Valley and Malibu.

The first wind-related trouble in Simi Valley Saturday "it around noon, said Christine Bradley, area manager for Simi Valley and Moorpark Southern California Edison Co.

"The wind blew trees into the lines," Bradley said.

Eighteen thousand customers in the eastern end of Simi Valley were without power, which was restored to all residents by 4 p.m., she said.

Winds also knocked the power out in Box Canyon Sunday just after 4 a.m. Bradley said, adding the customers in the area were affected by the downed power lines.

An additional 2,900 residents in the southeast end of Simi Valley lost power early Sunday morning.

Trees downed into power line interrupting the entire circuit, said Bradley, who indicated power was restored by 9:02 a.m.

Four circuits and more than 1,400 residents in the Malibu area were also affected Saturday and Sunday by the high winds, Bradley said.

However, she also indicated no incidents of damage to power lines have reportedly been filed since Sunday afternoon.

ENTERPRISE 10/30/89

Rocketdyne

Field Lab concerns continue

By Susan Chasen

There's still plenty to worry about at Rocketdyne, despite the welcome news last week of plans to close the nuclear "hot lab," according to members of the Rocketdyne Cleanup Coalition.

About 40 members of the coalition, a citizens group opposed to nuclear activity at Rocketdyne, gathered this morning at the company's Santa Susana Field Laboratory for a news conference on the coalition's future.

Among the ranks of those present was rock music star Tom Petty. He said he turned out because he has been concerned by reports of contamination at Rocketdyne.

Don Wallace, chairman of the coalition, said there are still many unanswered questions.

"Just because they closed one building in the complex doesn't mean the issue is dead," he said. "We hope that the news media and the public will remain aroused and concerned."

Just before the 11 a.m. meeting, Wallace hand-delivered a letter to Rocketdyne president Beo Paster

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Field Lab

(Cont. from Page 1)

outlining five remaining concerns and calling for more information about Friday's announcement.

In a surprise announcement Friday, Rocketdyne stated it would close the "Hot Lab" by Oct. 28, 1988. Earlier, the company was seeking a 10-year extension from the Nuclear Regular Commission to operate the lab.

Rocketdyne, a division of Rockwell International Corp., had "declad" — or processed — spent nuclear fuel rods at its "Hot Lab" at its site in the hills above Simi Valley.

The five questions were:

- Why was Rocketdyne pursuing a 10-year license extension when the Department of Energy had already stated as a top priority the "decommissioning and decontamination" of the "Hot Lab"?
- What commitment is Rocketdyne making that it will not seek to renew the license sometime during the next year?
- Will there be any other nuclear activity at the Santa Susana Field Laboratory site, specifically the Department of Energy's nuclear activities at the site that are not subject to NRC licensing?
- Does Rocketdyne's last remaining planned use of the "Hot Lab" involve incineration of radioactive material?
- Does Rocketdyne currently handle nuclear materials at its other San Fernando Valley facilities?

In addition, Wallace insisted that the coalition will fight against any future transportation of nuclear materials through the Simi Hills, and for formal representation on decontamination planning and implementation at the site.

Input urged on Rockwell cleanup

DOE shows rare openness by asking local officials to help prepare Simi Hills plan

By TONY KNIGHT
Daily News Staff Writer

In an unprecedented move toward openness, the U.S. Department of Energy has asked state and local environmental officials to help plan proposed cleanup operations at Rockwell International's nuclear laboratory in the Simi Hills.

Local officials said the invitation to a planning workshop later this month marks a sharp turnaround for DOE officials who have had little or no contact with regulatory agencies during the four decades of nuclear research that was conducted at the laboratory three miles west of Chatsworth.

"That kind of thing never occurred before," said Terry Gilday, Ventura County's environmental health manager. "The only time you ever saw anyone from DOE before was if you happened to bump into them on the site, and if you did they wouldn't talk to you."

What is unique about the workshop, officials said, is that local agencies are being involved in cleanup operations in the early planning stages and will be able to make informed comments on the plan before it is issued in final draft form.

Similar workshops for local officials are planned in the coming four weeks at DOE's five other nuclear installations in California, said Richard Nolan, assistant manager of the DOE's Oakland office.

"We've never done anything like this before," Nolan said. "We've never placed as much comprehensive attention on what condition our sites are in from an environmental standpoint and what needs to be done to clean them up."

The new openness for an agency that was born under a cloak of secrecy that surrounded the wartime development of the atomic bomb is the result of policies set down last summer by Energy Secretary James D. Watkins.

In a speech last June, Watkins admitted that the DOE had lost

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DOE solicits local input on Rockwell lab cleanup plan

CLEANUP / From Page 1

public confidence because of massive environmental problems at nuclear weapons plants across the nation and promised "a new culture of accountability."

DOE officials are now involving local agencies in the cleanup process, seeking their input before decisions are final and planning to include their comments in official planning documents that will be distributed to the public.

"The department's intent is to gain credibility," Nolan said. "And the only way to gain credibility is to provide data to people so that they can be assured that we're complying with the law and that we're not representing a health hazard to the people on site and the people in the surrounding community."

The Daily News disclosed last May 14 that a DOE environmental survey had found problems with radioactive soil contamination and chemical ground-water contamination on the nuclear research portion of Rockwell's Santa Susana Field Laboratory.

The report said there was no evidence of an imminent threat to public health but more monitoring and testing were necessary to determine the extent of the problem.

DOE officials at first refused to release the survey report, saying it was a draft. But the report was released to the public after Rep. Elton Gallegly, R-Simi Valley, demanded a copy.

Officials with the U.S. Environmental Protection Agency, the state Toxic Substance Control Division and Water Quality Control Board expressed surprise at the extent of environmental problems at the field laboratory, which is operated by the company's Rocketdyne Division.

Toxics and water quality officials had overseen a major ground-water and toxic-pond cleanup at the area of the 2,600-acre field lab where the company does rocket-engine testing and development for the National Aeronautics and Space Administration and the Air Force.

But they said they had been unaware that up to 16 nuclear reactors had been operated on the 290-acre nuclear research portion of the lab.

EPA officials in San Francisco said they had evaluated the field laboratory to see whether it should be put on the Superfund cleanup list without ever knowing the extent of nuclear research carried out at the site or details of the nuclear contamination problems.

Rocketdyne officials have maintained that they complied with all environmental regulations, keeping the appropriate agencies informed of the problems. But most documentation prepared by the company was reported to the DOE, which acted as both the contractor for nuclear work and the regulator of environmental problems at the site.

> *"That kind of thing never occurred before. The only time you ever saw anyone from DOE before was if you happened to bump into them on the site, and if you did they wouldn't talk to you."*
>
> — Terry Gilday
> Ventura County's environmental health manager

Under pressure from Gallegly, the EPA assumed oversight of the cleanup process in June, and local officials have been conducting investigations into the contamination problems.

"Certainly with respect to that facility, based on where we were three, four or five months ago, I think there is a much different attitude being shown by the DOE people up there," said Robert Giarelli, executive officer of the water quality board.

In the meantime, Watkins issued the department's long-awaited five-year plan to deal with all of its environmental problems. The $23 billion plan envisions spending $45.5 million on cleanup efforts at Santa Susana.

Last month, the DOE's San Francisco Field Office released a summary of the cleanup work that is planned including the $7.3 million excavation of the Sodium Burn Pit, where the soil is contaminated with chemicals and radioactivity, and decontamination and decommissioning of up to 16 buildings.

The DOE and Rocketdyne also have dug 17 new ground-water monitoring wells to determine whether radioactivity has seeped into underground water supplies. Data from the wells is expected within a month, officials said.

Meanwhile, DOE officials in Oakland are preparing a Site Specific Plan that will detail planned cleanup operations at Santa Susana and will be updated every year.

DOE officials met Oct. 27 in Burbank with state and local officials to outline the planning schedule. A first draft of the Site Specific Plan will be submitted to the agencies Friday, they said, and a workshop for local officials will be conducted at Santa Susana Nov. 29.

State and local officials are expected to submit comments on the plan by Dec. 15, and the final draft will be released by mid-January, Nolan said.

"We want them to have as much current information as possible with respect to what our assessment is of the problems at the sites and what it is that we're going to do about them," Nolan said.

Similar cleanup plans and workshops with local agencies are being developed for Lawrence Livermore National Laboratory, Lawrence Berkeley Laboratory, a DOE laboratory at the University of California, Davis, the Stanford Linear Accelerator Center and the Sandia Laboratory at Livermore, Calif.

The DOE's five-year plan outlines major problems with underground soil and ground-water contamination problems at Lawrence Livermore, the potential for toxic effluent discharges and radioactive air emissions at Lawrence Berkeley and inadequate waste and hazardous materials handling at the linear accelerator.

The Sandia National Laboratory, which is managed by the DOE's Albuquerque, N.M., office, has problems with existing systems to monitor radioactive air emissions.

By far, the worst environmental problems addressed in the plan were at the agency's nuclear weapons plants such as the Rocky Flats Plant in Colorado, Feed Materials Production Center near Fernald, Ohio, the Hanford Plant in Washington state, and Savannah River site in South Carolina.

"I think it's fair to say that in comparison to other DOE sites across the United States, particularly those that have been involved in weapons production, the DOE sites in California do not represent as severe a contamination problem," Nolan said.

"But I really wouldn't want to compare between the DOE sites in California because the circumstances in the operations are somewhat different," he added.

Daily News 11/6/89

11/9/89 - The Enterprise

Cleanup group focusing on Simi Valley

The Rocketdyne Cleanup Coalition wants to get the Simi Valley community more involved in their efforts and are planning an event later this month to address concerns and questions local residents may have.

The event, set for 7:30 p.m. Nov. 27 at the Simi Valley Library, will be a comprehensive overview of what is known and what isn't known about nuclear activities conducted by Rocketdyne and U.S. Department of Energy in the nearby Simi Hills.

"This side of the hill has been asleep," said Marie Mason, a Susana Knolls resident and member of the coalition. "We want Simi Valley to be informed so they can make intelligent decisions."

Mason and other Knolls residents noted that Simi Valley residents have signed petitions opposing nuclear activities at Rocketdyne's Santa Susana Field Laboratory and have expressed concern, but have probably been discouraged from getting involved because most of the meetings and hearings on Rocketdyne have been in the San Fernando Valley.

"We're totally aware of it every day," said Knolls resident Holly Huff, because Rocketdyne employees travel through their neighborhood to go to work.

"I'd like to see Simi Valley pressure not only Rocketdyne, but the DOE, to stop all nuclear activities here."

The Susana Knolls Homeowners Association is one of several organizations that have formed the Rocketdyne Cleanup Coalition. The coalition's three main goals are to block new nuclear activities at Rocketdyne's Simi Hills and San Fernando Valley facilities, to expedite cleanup of known radioactive contamination at the site, and to have health studies done to see if former Rocketdyne employees or nearby residents have suffered health effects related to radiation exposure.

Some Knolls residents are worried that there could be a correlation between a number of cancer cases in their neighborhood and contamination at Rocketdyne and DOE facili-

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Clean

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ties.

The coalition is seeking public participation in monitoring cleanup efforts and is calling for independent technical studies throughout the process. Similar agreements have been reached in other cleanup efforts throughout the country, according to Dan Hirsch, with Bridge the Gap, a group working with the coalition to block new licensing of Rocketdyne's nuclear "hot lab."

State officials have agree that citizens should be involved in the cleanup process, but so far no formal arrangements have been made.

Since an announcement nearly three weeks ago from Rockwell International Corp.'s Rocketdyne Division in Canoga Park that the company is going for a one year extension on its "hot lab" license instead of the 10 year extension it had previously sought, the coalition has not dropped its efforts.

In a letter to the company president Bob Pinter, dated Oct. 26, the coalition asked for specific clarification of the announcement, but so far there's been no response.

Rocketdyne spokesman Paul Sewell said Wednesday that he does not know when the company will respond.

If the company does not respond to the coalition, it may be asked to do so by the administrative law judge who is handling Rocketdyne's relicensing application to the Nuclear Regulatory Commission.

Intervenors in the license renewal case have sent the letter to the judge and asked that he request a response from the company.

The letter asks, among other things, whether the company is guaranteeing that it will not simply seek another extension after Oct. 30, 1990, the date announced for final closure of the "hot lab."

At a coalition meeting Wednesday night in the Susana Knolls, members also discussed whether three intervenors — Estelle Lit, Jerome Rankin and John Scott — should withdraw from the case now that Rocketdyne has reduced its licensing request. It was noted that intervening is an exhausting, time consuming and expensive responsibility. But the answer was emphatically "no."

Settlement negotiations might be an option at this point, but some of the intervenors are planning to pull out.

The Rocketdyne Cleanup Coalition, which has not yet filed for intervenor status, still intends to do so.

According to Hirsch, the licensing process for the year extension is likely to take a year in itself. Rocketdyne will probably reach its own Oct. 30, 1990 deadline for shutting down its "hot lab" before a license is received.

The company's NRC license for handling federally regulated radioactive materials, such as plutonium and uranium, expired in June 1988, but work is allowed to continue indefinitely while a new license is being sought.

Rocketdyne has reported that the lab will be needed in early 1990 for a joint project with the Japanese, called TRUMP-S, an experimental technology for reducing radioactive waste by heating.

Rocketdyne said that project will require a license for handling 4 grams of plutonium, but, Hirsch noted that the company doesn't say how often that quantity is to be used. It's far less than the previous license allowed, but there are still unanswered questions, he said.

The changed license application also asks for a total Special Nuclear Material handling capacity of 450 grams. According to Hirsch, some of this could also be plutonium.

Other outstanding questions concern a range of highly radioactive elements that are state-regulated and licensed, Hirsch said.

ENTERPRISE 11/9/89

Tainted soil to be removed from Rockwell lab by '92

By TONY KNIGHT
Daily News Staff Writer

All soil contaminated by radioactivity at Rockwell International's nuclear research laboratory in the Simi Hills will be removed within three years, according to a detailed cleanup plan released Tuesday by the U.S. Department of Energy.

The $34.6 million plan outlines a five-year cleanup operation at the company's Santa Susana Field Laboratory three miles west of Chatsworth in which contaminated soils would be hauled out by 1992 and the most highly contaminated buildings would be demolished and hauled away by 1995.

The cleanup plan is part of the DOE's $23 billion, five-year plan for environmental cleanups nationwide.

The documents released by the DOE's San Francisco office includes cleanup plans for the Lawrence Livermore National Laboratory, the Lawrence Berke-

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Soil cleanup planned for Santa Susana nuclear lab

ROCKWELL / From Page 1

ley Laboratory and the Stanford Linear Accelerator in the Bay Area and the Laboratory for Energy-Related Health Research in Davis as well as Santa Susana.

"This is the first time not only for Rockwell, but for all DOE sites, that we have issued for public comment our best understanding of environmental contamination problems at our various sites and what we proposed to do about them," said Richard Nolan, assistant manager of the DOE's San Francisco field office.

The draft cleanup plan reiterates earlier findings that there is no evidence of a public health threat at the mountain site and that there is no threat to workers at the laboratory.

It also contains plans for an extensive surveillance and maintenance program to make sure that contamination problems do not get worse prior to cleanup, and a monitoring program to determine whether ground water supplies have been contaminated.

"We received the document late this afternoon," said Paul Sewell, spokesman for Rockwell's Rocketdyne Division, which operates the field laboratory. "We intend to thoroughly review it and are not prepared to discuss it further until that analysis is complete."

Copies of the draft report also were distributed to state and local regulatory agencies and other interested parties, who were invited to make comments on it before a final version is released in January, Nolan said.

The plan will be updated and released annually for public comment, he said.

There was little new information on the location and extent of contamination in the report. But all known contamination areas were identified and scheduled for cleanup with a cost estimate.

The report identifies three soil contamination problems at the 290-acre nuclear reservation, stating that the contamination incidents occurred during the 1960s when nuclear research at the facility had reached its peak.

Soil contamination problems include:

■ The old Sodium Burn Pit, where chemical and radioactive contamination has been detected in a 1-acre area that was used to discard waste material and to treat liquid metals. Company and DOE officials have said they do not know how the area became contaminated, stating that no one was ever authorized to dispose nuclear wastes there.

■ The nuclear Hot Laboratory, a heavily shielded workshop where highly radioactive material can be handled by remote control. Company officials said there is low-level radioactive contamination outside the building as a result of normal operations.

■ The Radioactive Materials Disposal Facility, a nine-building complex where nuclear wastes are processed and packaged for shipment off site. Company documents indicate the radioactive levels in the soil, although still low-level, were about 200 times above background levels — the highest at Santa Susana. They said the contamination was caused by spills of liquid wastes that were partially cleaned up.

"The only known unconfined or outdoor radioactive contamination remaining at the site is the 'Burn Pit,' areas adjacent to the RMDF and the Hot Lab," the report states. "All of the areas with the exception of the Burn Pit will be decontaminated by the end of the current fiscal year."

The Burn Pit will be decontaminated in 1991 and 1992, the report said.

Officials said radiation levels in all contaminated soil areas were too low to present a health threat to workers.

DAILY NEWS 11/15/85

ENTERPRISE 11/19/89

Called unrelated to contamination

400 Rocketdyne workers moved from Field Lab

By Kayla Ulbrich
[illegible]

More than 400 workers have been moved from Rocketdyne's Santa Susana Field Laboratory over the past month, The Enterprise has learned.

The move is not related to recent reports of radioactive and chemical contamination at the company's mountaintop testing site above Simi Valley, Rocketdyne communications director Pat Coulter said. Rather, Rockwell International Corp., Rocketdyne's parent company, is consolidating its operations, Coulter said.

"We're just moving people around," Coulter said. "There's no particular significance to the move except that we're moving into a brand new facility."

The technicians and engineers who are being moved out of about a half-dozen modular units at the site are with Rocketdyne's environmental service division, Coulter said. Those people have all been moved to a newly constructed Rocketdyne office facility on Plummer Street in Chatsworth, he said.

Some of Rockwell's 9,500 employees from other Rocketdyne facilities in Canoga Park and Westlake are also being moved to the new three-building facility on Plummer Street. They will be part of a planned 1,600-person work force there, which should be fully operational in another year, Coulter said.

There are still about 600 people who will be working at the Rocketdyne facility above Simi Valley, Coulter said.

Although most of the moving from the Rocketdyne site is finished, there is still under way at Rocket-

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Detailed report is released

By Susan Chasen
[illegible]

In order to be more open about its cleanup activities and plans, Rocketdyne has released its

• City Council studies issue. Page 2.

first bimonthly Environmental Monitoring Report on its 2,600 acre facility in the Simi Hills.

But several citizens groups, including the Santa Susana Knolls Homeowners, which have been vocal in their concerns about contamination at Rocketdyne were not included on the list of more than 70 individuals and organizations to receive copies of the report.

The report is three volumes and about 800 pages, and it includes monitoring data on air, ground

(Please see REPORT, Page 14)

Report

(Cont. from Page 1)

and surface water and radiation, and covers new plans for additional monitoring, cleanup and studies.

Copies were sent out Friday to state, local and federal officials as well as to three chambers of commerce and the Bell Canyon Homeowners Association.

This edition of the report may be more detailed than future reports, according to Rocketdyne spokesman Pat Coulter, but the company is expecting to be generating these every two months for quite some time.

"We hope that this will be considered as a report card on how we're doing with cleaning up the facility," Coulter said.

"We look forward to the feedback that we're trying to receive so that we can continue to have an open and ongoing dialogue with all the regulatory agencies that are concerned with environmental conditions on the hill."

None of the groups that have been most vocal in expressing concerns about contamination and nuclear activities at the site were included on the list to receive copies of the report.

Barbara Johnson, president of the Susana Knolls Homeowners Association and member of the citizens Rocketdyne Cleanup Coalition, said she is disappointed these groups didn't get the reports.

"When they came to talk to our group in June, they said that we would be kept updated on what's happening. So far we've gotten no response from them at all," Johnson said.

"If anybody is entitled to this — yes, Bell Canyon is — but along with Bell Canyon, Santa Susana homeowners ..."

"If they're going to give it to one of their neighbors, they certainly should give it to all their neighbors."

Johnson said the Knolls homeowners who didn't get a copy of the cleanup plan released last week by the U.S. Department of Energy.

"We're certainly not being vindictive in any shape or form — we simply want to know the facts," Johnson said. "We can't just have somebody telling us, we have to have documents showing us."

Coulter said that since so many reports were issued, each group should be able to get dozens to one of them.

The Rocketdyne report is a comprehensive source of information on the status of environmental testing, cleanup work and new permit applications at the Santa Susana Field Laboratory.

"Nothing's been excluded from the report," said Steve Latham, manager, Rocketdyne environmental unit.

"It has every bit of data — good or bad."

There are no real surprises, though, Latham said.

Some test results on radioactive tritium levels in groundwater are not in yet, but Latham said he expects the levels will be far lower than maximum levels allowable in drinking water.

The report indicates that Rocketdyne is planning to ship out 30 boxes of irradiated waste materials to Westinghouse Hanford Company in Richland, Wash., in 1990 and early 1991. These materials are coming from Building 59, formerly a test facility for SNAP reactors — Spaced-based Nuclear Auxiliary Power supply.

Latham said the boxes are about 1.5 cubic yard. The total of 45 cubic yards is expected to be removed in 15 shipments, according to the report.

During the two months covered in the study, August and September, non-radioactive hazardous wastes were shipped to Texas for incineration.

The report also covers water discharges from Rocketdyne's efforts to cleanup groundwater contaminated with solvents. In July and August, over a total of 22 days, 34 million gallons of treated water were discharged into Bell Canyon, eventually running into the Los Angeles River.

For the most part, Latham said, the water is kept on site and used for industrial purposes like cooling down rocket engines during test firing. Then the remainder is discharged.

A second source of water discharge is from Rocketdyne's co-generation power plant. Then as water Rocketdyne and the U.S. Department of Energy are still planning to send down Simi Valley sewers. The city has refused to allow this, but DOE's cleanup plan released last week includes the sewer hookup as a preferred option for discharging the water.

The Rocketdyne report also details radiological tests of air, soil water and in the atmosphere at the Santa Susana Field Laboratory. More studies are planned for establishing what naturally occurring levels are in the area to make the test results more meaningful.

Radiological water monitoring has also been expanded at the site. Test results from samples taken in March and June show levels above drinking water quality in 14 wells. In some cases levels were nearly 30 times the allowable levels, but Rocketdyne attributes the higher reading to high sediment.

Move

(Cont. from Page 1)

dyne's Canoga Avenue plant, and the company's Downey and Westlake facilities, Coulter said. Construction on the Plummer Street facilities has been "finished for about a year."

Coulter said the move was designed to get people working on the company's various government-contracted projects, such as the Space Shuttle Program and the proposed Space Station, next to the areas where those programs are being worked on.

"We're consolidating people to areas they're assigned to," Coulter said. "The moving is essentially finished. The moves have been going on for a month."

The moving is part of the company's change of management style, called "projectization," Jerry Johnson, Rocketdyne vice president for Advanced Launch System engines, said The Enterprise recently that in the past, the engineers would send a stress analysis to the stress analysis department, for example. Under "Total Quality Management," or "projectization" each department would have its own stress analysis staff.

The Department of Energy released figures last week that indicate estimates for the clean-up costs at the Rocketdyne facility should total about $34.6 million. Dan Pearman, acting manager of the DOE's Oakland office, sent a request to the Simi Valley City Council for comments on the clean-up procedure and any additional information city officials might feel is important.

Because of the short notice to the city, the issue will be addressed at an emergency agenda item at Monday's council meeting. The council goes into open session at 6:30 p.m. Monday at Simi Valley City Hall, 3200 Tapo Canyon Road.

Coulter downplayed the recently completed move off the hill and said the new Plummer Street offices are a far cry from the trailers Rockwell employees were once forced to work in.

At least the Plummer Street offices have running water and flushing toilets, unlike the modular units.

"They were reasonably nice," Coulter said of the trailer accommodations at the Santa Susana field lab. "But they weren't what we wanted."

ENTERPRISE 11/21/85

Council seeking additional data on Rocketdyne plans

By Kevin Uhrich
Staff Writer #1 11/21/85

Simi Valley officials are seeking additional information on Rocketdyne's cleanup plans, calling a detailed Department of Energy report on the radioactive and chemical contamination at the company's Santa Susana Field Laboratory site outdated and partially inaccurate.

With less than a week to digest the more than 900-page technical document and report back to the DOE, city staff last week agendized the issue for immediate council review and action.

And after the city's Department of Environmental Services tore the document apart up until late Monday afternoon, both staff and the council raised additional questions about some of the data being used for the DOE's $346 million dollar cleanup effort at the Rocketdyne Santa Susana Field Laboratory.

At Monday's meeting of the council, councilmembers expressed reservations about technical deficiencies with the DOE report on the Santa Susana site.

"It's hard to tell if the information is outdated, but the map (used in the DOE report) seems to be," said Councilman Glen McAdoo. McAdoo voted with Mayor Greg Stratton and Councilman Bill Davis to send the council's comments and recommendations on to Don Pearman, acting manager of the DOE's Oakland office, today.

Along with asking for more information on radioactive waste transportation routes planned for use during the DOE's proposed five-year clean-up, the council also requested the Rocketdyne site be given a higher ranking in the DOE's overall cleanup site priority list.

McAdoo and other councilmembers estimated the map of Simi Valley used in the DOE report to be 20 to 30 years old.

"I think there are some flaws in the report," said Mayor Pro Tem Ann Rock. Rock and Councilwoman Vicky Howard sat out for the discussion and vote on the issue. Their husbands are retired engineers with Rocketdyne's parent company, and collect monthly pensions from the company. Rock and Howard both commented about the DOE report as private citizens after the meeting ended.

"For something that was site specific, it was lacking a lot of information," said Rock, a chemical engineer. Rock also chairs the city's Hazardous Materials Committee.

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Cleanup

(Cont. from Page 1)

"We haven't had Santa Susana (the former name of the community before incorporation in 1969) on a map for years," she said. Rock also questioned land use percentages used by federal speculators on the types of land uses identified in the Santa Susana Knolls residential area around the Rocketdyne site.

"As a citizen, I just have some concerns," Howard said after the meeting ended. "I'm not sure everything has been satisfactorily handled." Howard also said she wants to see Rockwell "show some responsibility to the community."

The DOE report, issued to city officials early last week, delved into such things waste management operations, correctional activities at the mountaintop rocket engine testing site and "D and D," or decontamination and decommissioning procedures, a federal requirement for all sites contaminated with radioactivity, hazardous waste or mixed waste.

At the Rocketdyne Santa Susana Field Laboratory, located in the mountains above Simi Valley, that means the "Hot Cell," or "Hot Lab," which was used for atomic testing and research, and seven other sites at the facility, including Building 59, the reactor test facility, the radioactive materials test facility and the so-called "sodium burn pit."

Because Pearman must send his report off to Washington D.C. by Dec. 15, the council had until Dec. 1 to comment. Because the council does not meet again until Dec. 4, the council was forced to act on the issue at Monday's meeting.

The public will have until Nov. 30 to review and comment on the DOE document and the city's response, which are available for reading at the Simi Valley Public Library, 2969 Tapo Canyon Road and next year at City Hall.

Marie Mason and Molly Huff, members of the Susana Knolls Homeowners, attended the Monday council meeting to speak out on the Rocketdyne issue and express safety concerns for the community. Huff and Mason, presidents of the Susana Knolls Homeowners, said they were not sent a copy of the DOE report. The staff-prepared response was distributed to the press and the council before Monday's meeting got under way.

Although neither Mason nor Huff wanted to comment on the report or the city's response until reading both documents, Mason said there will be a meeting a Monday to possibly discuss the Rocketdyne issue.

"Is Rocketdyne a Safe Neighbor?" will be the topic of the meeting, scheduled for 7:30 p.m. Monday at the Simi Valley Public Library. The meeting is sponsored by the Rocketdyne Clean-Up Coalition, a group comprised of homeowners groups and residents mostly from the San Fernando Valley.

In its findings for the council, staff listed several other concerns with the DOE report besides antiquated information and out maps. Among staff's concerns was the absence of information on transportation routes planned for use during the cleanup. Staff also said a proposal in the federal cleanup plan to discharge waste water into the city's sewer system was an idea already shot down by the council last summer.

City staff also called for a higher priority ranking on the evaluation and clean up of contaminated groundwater sites and said that public meetings with homeowner groups and other concerned residents be scheduled with DOE representatives.

Promise of lab closure demanded

By TOBY KNIGHT
Daily News Staff Writer

Opponents of Rockwell International's bid to relicense its nuclear laboratory in the Simi Hills have demanded a written promise from the company that the research facility will be closed next year.

Faced with community opposition, the company's Rocketdyne Division last month abandoned plans to seek a 10-year license renewal for the Hot Laboratory, a heavily shielded nuclear workshop at the company's mountain research site three miles west of Chatsworth.

The company says it is seeking a one-year extension from the U.S. Nuclear Regulatory Commission to complete minor nuclear research and develop a plan to decommission and decontaminate the hot lab.

San Fernando Valley residents who have been recognized by the NRC as legal intervenors in the relicensing case said that Monday they want a written promise to close the lab.

"I can see why they require a year to close up," said intervenor Jerome Rosen, president of the Northridge Civic Association. "But what about the end of the year? After all, if they requested a license for this period of time, who knows what they could request in the end of this time."

Rocketdyne spokesman Paul Sewell said the company could not comment on the intervenors' statements.

Rosen and intervenor Bonnie Lit of Northridge sent a letter Nov. 13 to NRC Judge Peter Bloch asking for the company's written promise to close the lab permanently on Oct. 30, 1990.

Community concern over environmental contamination at the site has heightened since the Daily News disclosed May 14 that a DOE environmental survey had found radioactive contamination in the soil and chemical contamination of the ground water.

The DOE survey found no evidence of an imminent public health threat, but recommended further monitoring and investigation to determine the extent of the problem.

Since May, the U.S. Environmental Protection Agency has assumed oversight of the cleanup activities and the DOE has issued a $34.6 million cleanup plan, including $10 million to decontamin the Hot Laboratory.

In a telephone interview Monday at his Maryland office, Bloch said he has no authority to order the company to issue a written promise.

Rosen said Lit also asked that the company make a full disclosure of the nuclear work in has planned in the Hot Laboratory next year.

Bloch said he had asked the company to respond in writing to demands for a discussion of the nuclear research planned for the hot lab. He said a citizens oversight committee would have to be organized between the residents and the company.

A third intervenor in the case, Jan Scott of Bell Canyon, a member of the Rocketdyne Cleanup Coalition, issued similar letters to an earlier letter.

Simi council to criticize cleanup plan in letter to DOE

By PSYCHE PASCUAL
Daily News Staff Writer

SIMI VALLEY — The Simi Valley City Council decided Monday to send a letter to the U.S. Department of Energy criticizing a plan to clean up soil and buildings contaminated by radioactivity and chemicals at Rockwell International's Santa Susana Field Laboratory in the Simi Hills.

Among the concerns cited by the council are transportation of hazardous wastes from the facility, waste-water disposal, contaminated airborne dust and groundwater pollution.

"From our perspective, we feel the site should have higher priority," said Mayor Greg Stratton, who along with other council members said he is concerned that the Santa Susana laboratory has been assigned a low priority for cleanup funds.

Simi Valley resident Marie Mason, a representative of the Susana Knolls Homeowners Association, told the council her neighbors were concerned about the cleanup effort.

"We are worried about nuclear waste being transported through our neighborhoods," she said. "Safety of Rocketdyne is a concern of all Simi Valley."

The homeowners group will meet Monday to review Rocketdyne's cleanup plans, Mason said.

Three members of the Simi Valley City Council reviewed a draft version Monday of the letter addressed to Donald W. Pearman Jr., acting manager of the San Francisco operations office of the DOE.

"We feel that the [cleanup] plan should show specifically which routes have been designated for use by radioactive/hazardous waste removal vehicles," the letter said.

Council members Ana Rock and Vicky Howard declined from participating in the discussion Monday as city officials, citing conflicts of interest from their husbands' retirement pensions from Rockwell Int. national.

Rock, however, said she had a list of criticisms about the DOE report and planned to voice them as a public citizen.

"I have a feeling that the DOE is just paying lip service to our concerns, and this is a little taste they're throwing at us," Rock said.

Rock said she will send a letter as a private citizen to the DOE.

Rock, chairwoman of the city's hazardous materials committee, said she found the DOE report deficient in many areas. She criticized the report as vague and said much of the material, including maps, was outdated.

Stratton said the council had only five days to read the DOE report, which he said made it "inconvenient for the council members to properly review the document."

According to the DOE report on the $34.6 million cleanup plan, contaminated soils at the Santa Susana Laboratory would be removed by 1992 and the most highly contaminated buildings demolished and disposed of by 1995.

Rancher testifies he moved [illegible]

DAILY NEWS 11/21/89

SAN FERNANDO VALLEY

Residents target nuclear lab

Coalition plans to keep up pressure on Rocketdyne's Santa Susana facility

By BETH BARRETT
Daily News Staff Writer

SIMI VALLEY — Leaders of the Rocketdyne Cleanup Coalition urged 70 people at a Simi Valley meeting Monday night to continue community activism aimed at stopping nuclear research at Rockwell International's Santa Susana Field Laboratory.

"We don't plan to go away," said Dea Wallace, the coalition's chairman. "This meeting is to review the activities at the lab and to recommend actions that we as neighbors can take to accomplish the goals we have set to stop what has been happening on the hill for far too long — for 40 years."

Members of the coalition met at the Simi Valley Public Library to gather support for stopping nuclear work and immediately cleaning up contamination at Rockwell International's research facility in the Simi Hills.

The meeting was the coalition's third since the Daily News reported in May that a U.S. Department of Energy environmental survey had found radioactive and chemical contamination in the soil, and chemical pollution in the ground water at the laboratory, three miles west of Chatsworth where 10 reactors were tested over four decades.

Paul Sewell, spokesman for the company's Rocketdyne Division, said company representatives were not invited to the meeting.

The coalition's goals mirror those of three San Fernando Valley residents who have opposed Rocketdyne's application with the federal Nuclear Regulatory Commission to continue limited nuclear work at the 290-acre nuclear research facility, said Jerome Raskin, Northridge Civic Association President and one of the interveners in NRC's review of the license application.

Community opposition led Rocketdyne to abandon a 10-year license renewal for the Hot Laboratory, a heavily shielded nuclear workshop.

The coalition opposes the company's current proposal for a one-year extension and has asked for a public commitment from the company that it will close the lab permanently Oct. 30 of next year if the NRC does grant a one-year extension.

"The protests have always existed to Rocketdyne's work in the community, but the climate for that protest was not conducive to keep the protests going. Today it is," Raskin said.

The DOE environmental study and later the U.S. Environmental Protection Agency concluded the lab contamination does not pose an immediate health threat to workers or the public. However, both criticized monitoring at the facility, saying it was inadequate to determine the full extent of the environmental contamination.

The company subsequently announced it would drill new ground-water monitoring wells, and a DOE plan released earlier this month called for the removal of all soil contaminated by radioactivity within three years.

While Raskin said the coalition opposes the DOE's efforts to involve the community, he said the organization still wants more oversight and influence in matters involving the NRC and the company.

Daily News 11/28/89

Nov. 28, 1990

Cleanup Coalition targets Rocketdyne; vigilance of 'monster on the hill' urged

By Susan Beason
The Enterprise Staff

The Rocketdyne Cleanup Coalition may have set up a new colony of concerned citizens in Simi Valley to help in their fight to stop nuclear activities at the company's controversial Santa Susana Field Laboratory.

At a public meeting Monday night, about 100 local residents turned out to learn how to get involved in the coalition. Many left with petitions to circulate. They are determined to pressure the elected officials to prevent any new nuclear work at Rocketdyne and to ensure safe and thorough cleanup of contamination — both on Rocketdyne property and on properties owned by the U.S. Department of Energy.

Also, scattered throughout the audience at the Simi Valley Public Library were several Rocketdyne employees. Some employees were willing to comment after the meeting, but would not be identified.

"Our efforts have to be toward getting Congress and our elected representatives to react to our concerns and our demands that these contaminated areas in our neighborhoods," said Don Wolfson, coalition chairman.

"It's time for Rocketdyne to fold its tent and steal silently into the night, leaving us with a facility that could be used for other work."

Monday's public meeting was the group's first in Simi Valley. The coalition is made up of homeowners, organizations and other groups concerned about past and future nuclear work at Rocketdyne.

Also, the coalition is calling for independent monitoring of the cleanup of the company's Santa Susana Field Laboratory in the hills above Simi Valley and for epidemiological studies of Rocketdyne employees and nearby residents.

Assemblyman Richard Katz, D-Sylmar, has written to the state Department of Health Services asking for epidemiological studies. Any relicensing of Rocketdyne to handle nuclear material would be premature until health studies are completed, Katz said.

Katz and Assemblywoman Cathie Wright, R-Simi Valley, sent representatives at the meeting.

Barbara Johnson, president of the Santa Susana Homeowners Association, said she was disappointed so few elected officials turned out. City, county, state and congressional representatives were invited.

Johnson expressed how revelations about contamination of Rocketdyne have changed her life.

"Fear has replaced our peace," she said. She described Rocketdyne as "the monster on the hill."

Simi Valley resident and Chaparral Middle School teacher Richard Gillis said he plans to join the coalition.

"This was, hopefully, the first step for getting people more involved," Gillis said. "I am concerned about the potential dangers. I'm a great supporter of zero tolerance in that respect.

"We need to find a more appropriate operation or location. This is not appropriate."

Dan Hirsch, with the Committee to Bridge the Gap, warned the group that a $96.8 million cleanup plan from the DOE is not the end of the road.

Cleanup itself can be hazardous, he said, because winds can blow contaminated dust into surrounding communities. Also, he said, cleanup promises sometimes simply go unfulfilled and contaminated waste is kept on-site or not properly disposed of.

Nine of nine radioactive site cleanups across the country, Hirsch said, have been found deficient by the U.S. General Accounting Office. In some cases, homes have been built on these supposedly cleaned up sites, he said.

"We are simply going to have to be very vigilant," he said.

Simi Valley resident Ruth Salvatierra said she has approached the City Council about her concerns and was frustrated by its disinterest in the issue.

"They basically are saying, 'They are over there. We're over here. It's not in Simi Valley, it's not our problem,'" she said.

"I think the coalition is right. I think we need to stand up and say 'No more.'"

An 11-year Rocketdyne employee who did not want to be identified said the nuclear industry has changed across the country. But, at the same time, he said, there is perhaps an element of hysteria in the concerns about Rocketdyne.

"Some of these people are antagonistic to me making a living," he said. "There's a feeling on the hill that these people are out ... to shut the place down.

"Rocketdyne is one of the major players in Simi Valley being anything on the map whatsoever, and even the community does not need Rocketdyne."

According to Hirsch, protests about Rocketdyne are nothing new. Ten years ago, he said, the outcry was similar when it was discovered that the company's predecessor, Atomics International, had not told the community about a meltdown in 1959 in one of its experimental nuclear reactors.

Amounts of radioactive material at that time are not known, he said.

"Protest has always existed in Rocketdyne's work in the community. ... Unfortunately, it has not been organized and probably the climate in which the protest originated was not conducive to keeping the protest going," Hirsch said.

Enterprise 11/28/90

EPA: Contaminated Rocketdyne site was untested

By Susan Chasen
The Enterprise Staff

The U.S. Environmental Protection Agency said Tuesday that results now available from soil and water tests done at Rocketdyne in July indicate no present public health risk, but officials acknowledged that a key site, known to be contaminated, was not tested.

The findings support repeated assurances from state and federal officials as well as officials at Rocketdyne, that there is no immediate health threat.

But concerned neighbors of the site have said they want to know over what period of time or under what conditions — past or present, these contaminants could pose a health threat.

The EPA report also stated that the levels of contamination are low enough to make off-site migration unlikely. It contains test results already announced regarding low levels of radioactive tritium in ground water and cesium-137 in soil.

Not tested was the area near the Radioactive Materials Disposal Facility, a nine-building U.S. Department of Energy facility slated for a $8.1 million decontamination and decommissioning cleanup by the agency.

Under the DOE's current $34.6 million cleanup plan for all its facilities at Rocketdyne, the site will be last to be decontaminated and decommissioned because it is needed for storage of contaminated waste during cleanup of other areas.

The north slope adjoining the facility and the facility's leach fields are scheduled for cleanup in 1991 in the plan, but the plan also states that this is a "more aggressive" program than is reflected in current funding requests for that year.

According to Rocketdyne, the sanitary sewage leachfields at the RMDF were accidentally contaminated with radioactive materials in 1982, and were cleaned up in 1973. Company reports, however, indicate that small amounts of radioactive materials — cesium-137 and strontium-90 remain in cracks in the bedrock.

The RMDF has also been used for evaporation of radioactively contaminated water to reduce the volume of waste for disposal.

DOE officials have said there is material stored at the RMDF now, but have not specified quantities or types of materials.

According to the plan, the facility is going to be monitored from 1989 to 1992. Cleanup is scheduled to begin in early 1994, and decommissioning and decontamination of the facility is scheduled for late 1998. Completion of the effort is projected for sometime after 1998.

The current budget for the RMDF site monitoring work in 1989 is $200,000.

EPA officials said that test results released Tuesday do not represent the complete picture and that further tests will be needed. They said the failure to test at the RMDF was an oversight.

Six samples were taken on July. The cesium-137 was found near Building 04, a storage vault for radioactive materials. EPA samples were taken, however, prior to completion in August of outside contamination cleanup efforts.

Radioactive tritium found in groundwater under Building 59 should be studied further, according to the EPA report. Levels are below tolerable levels for drinking water, but the source of contamination is still unknown.

ENTERPRISE 11/24/89

DAILY NEWS 11/30/89

Rockwell's crisis plan inaccurate, NRC says

By TONY SUNDAY
Daily News Staff Writer

Officials of Rockwell International made "apparently negligent or grossly negligent misstatements" in their emergency plan to handle potential accidents at the Santa Susana Field Laboratory, a Nuclear Regulatory Commission judge says.

In an order Tuesday, Judge Peter B. Bloch gave the company 30 days to explain the inaccuracies in its emergency plan, which stated that the Los Angeles Fire Department had agreed to provide ambulance services during a nuclear accident.

NRC and fire department officials said there is no ambulance provision, and the company has agreed to review and revise its emergency plan, according to NRC documents released Wednesday.

Officials with the company's Rocketdyne Division, which

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Rockwell emergency plan inaccurate, NRC papers say

NUCLEAR / From Page 1

operates the nuclear laboratory, declined to comment.

"We haven't got a copy of that (order), and we can't comment on it until we do," said spokesman Paul Schell.

The company needs a one-year renewal of its application to handle nuclear materials at its facility in the Simi Hills.

"Rockwell should file . . . a statement concerning the factual accuracy and the adequacy of the on-site emergency plan originally filed as part of its license application," Bloch wrote in the order.

The NRC released a report Wednesday based on an inspection of the company's mountain laboratory, three miles west of Chatsworth.

The announced inspection of the NRC-licensed facilities at the site was conducted Oct. 17-20 in response to concerns about the company's emergency plan, known as the Radiological Contingency Plan.

In the report, NRC inspector C.A. Hackler said company officials explained that the emergency plan was inaccurate because it was not adequately revised after NRC-licensed facilities at two areas of the company's Canoga Park plant were closed.

The company's NRC license also covered the fabrication of nuclear fuel rods at a plant at the corner of De Soto and Nordhoff avenues, but that plant closed in the early 1980s.

In his order, Bloch said the NRC inspector did not specify why he concluded there were no violations of agency rules, despite the misstatements of the emergency plan.

"Nor is it clear whether he considered the possibility that there had been a violation of NRC regulations by submitting misstatements — apparently negligent or grossly negligent misstatements — in an application for a license," Bloch said.

The emergency plan submitted by the company as part of its license-renewal application is dated June 25, 1988, and was revised on May 19, 1989.

"They basically did a sloppy job not taking out the material that was relevant to the De Soto site," said Ross Scarano, director of the NRC's radiation safety division.

"None of it would render the plan inadequate for the Santa Susana site," he said.

The Daily News disclosed May 14 that a Department of Energy environmental survey found problems with radioactive and contamination and chemical ground-water contamination at the mountain site.

The survey concluded that there was no evidence of an imminent public health threat, but recommended more testing to determine the extent of the problem.

The DOE has developed a five-year $38.6 million cleanup plan for the property and has jurisdiction over most of the 300 acres of the site devoted to nuclear research.

But the NRC became involved in the case because it licenses the company's nuclear Hot Laboratory, a shielded workshop for handling highly radioactive materials.

Bloch is the presiding judge in the challenge of four San Fernando Valley residents to Rocketdyne's application for renewal of its NRC license to handle nuclear materials in the hot lab.

Rocketdyne applied for a 10-year extension of the license in June. But in the face of community opposition and the lack of business for the hot lab, the company announced last month that it would close the facility next year and ask for a license extension only until Oct. 30, 1990.

Bloch originally named three Valley residents as legal intervenors after a special hearing in Van Nuys on Sept. 29. But in his Nov. 28 memo, he added Don Wallace, a Los Angeles fire captain and former candidate for the county Board of Supervisors, to the group.

Wallace, appearing as a private citizen, had raised the issue of the inaccuracy of the company's Radiological Contingency Plan at the September hearing.

Wallace said Wednesday that he was elated to be named an intervenor, and praised the judge's order demanding an explanation from the company.

Wallace said he did not believe the explanation that the company had not deleted information regarding operations at its De Soto plant.

"That isn't credible," Wallace said. "The document was prepared for this license application. No such agreement has ever existed or exists now with the LAFD."

The NRC inspection report released Wednesday said the company had not violated NRC regulations.

In addition to ordering a review of the emergency plan, the inspector ordered the company to begin monitoring radioactive liquid wastes before they are pumped into a tanker for transportation to the DOE-owned radioactive-waste packaging plant nearby.

The company had been monitoring the tanker only before and after the liquid was transported, the report said.

"I think we're talking about a matter of good practice rather than a requirement," said NRC spokesman Greg Cook.

3 new groups allowed to legally intervene in Rocketdyne license

By Susan Chasen 12/8/89

Three more groups, including the Susana Knolls Homeowners Association, have been admitted as intervenors in Rocketdyne's application to renew its license for handling radioactive materials.

Administrative law judge Peter Bloch announced Thursday that the other two groups are the Committee to Bridge the Gap and the Southern California Federation of Scientists.

They list 35 concerns about Rocketdyne's requested license from the Nuclear Regulatory Commission to continue handling nuclear materials at the "hot lab" in the hills southwest of Simi Valley through Oct. 30, 1990. Most of the concerns center on the proposed research project called TRUMP-S, Rocketdyne's track record for monitoring itself and for reporting releases of radioactive emissions, and the potential for significant accidents even though Rocketdyne has scaled down its license request to allow for much smaller amounts of nuclear materials than allowed under the current license.

Also, the group wants assurances that after the one-year license extension to Oct. 30, 1990, Rocketdyne will not seek a further extension.

Bloch said that request is not within the scope of this license application.

As it is now, the company's license application will probably not be completed before August 1990, Bloch said.

This leaves only two months before the license would expire again. However, during the licensing review process, the company's expired license is automatically extended and the TRUMP-S research can go forward, unless intervenors seek to block operations while the license is being reviewed.

Bloch said so far the intervenors

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Intervene

(Cont. from Page 1)

have not made that motion. If they do, it will be a difficult case to make because they will have to establish that there will be "irreparable injury" if work is allowed to continue, he said.

According to Bloch, the decision to admit the groups as intervenors says only that he agrees that their concerns are pertinent to the case. It is not an indication that they have proven any of their allegations.

"There isn't much evidence in it," Bloch said of the group's petition.

I suggested that they listed so many things that they will want to decide what the focus is going to be," Bloch said. "They would do better to look for the things they can prove."

The deadline to intervene was Nov. 28. Now, intervenors have until Jan. 5 to file their cases. Other intervenors in the case are the Natural Resource Defense Council; Los Angeles Physicians for Social Responsibility; Don Wallace, representing the Rocketdyne Cleanup Coalition; and three individuals residing in the San Fernando Valley.

Where the petitions to intervene include lists of concerns, the next step will require proof substantiating these causes for concern and will have to cite specific aspects of the licensing regulations, which have either not been met in the past or are not met in the current application.

These cases can also describe gaps in the record that need to be filled. Then, there can be some back and forth between the intervenors and Rocketdyne.

When this process is completed, Rocketdyne will have an opportunity to rebut allegations from the intervenors, then Bloch will make an evaluation and accept suggested questions. Without a negotiated settlement between Rocketdyne and the intervenors or some other change in the application, the process is likely to last eight months.

Radioactive Water Found Under Rockwell Site

■ Environment: Officials say the radiation levels appeared to be low and pose no hazard to the public.

By MYRON LEVIN
TIMES STAFF WRITER

Elevated radioactivity has been found in ground water beneath Rockwell International's Canoga Avenue plant in Canoga Park, which was once a nuclear research site, state water quality officials said Friday.

Officials said the radiation levels appeared to be low and pose no hazard to the public. The nearest drinking water wells are 10 miles away in North Hollywood.

The radiation was detected in water samples from seven wells near the plant's Building 28, which was used 30 years ago for nuclear operations, according to a brief report by the Los Angeles office of the California Regional Water Quality Control Board.

"Based on preliminary data, there is evidence of radioactivity in the ground water," said Dr. Robert Ghirelli, executive officer for the regional board.

But Ghirelli said it appeared that naturally occurring radiation alone could not account for the readings.

"It's certainly enough for us to want to dig deeper," he said.

Officials of Rockwell's Rocketdyne division, which is headquartered at the Canoga Avenue complex, had no comment late Friday. "I'm not aware of the thing," company spokesman Pat Coulter said, and other officials could not be reached.

The report by the regional board, dated Dec. 4, also disclosed that the board's staff had been informed that water from other monitoring wells on a Southern Pacific right of way next to the Rockwell plant also "exhibited elevated gross alpha and gross beta particle activity." Alpha and beta are types of radiation.

That monitoring is connected with the possible sale of the right of way to the Los Angeles County Transportation Commission for use as a rail transit line.

Building 28, near the southeast corner of Vanowen Street and Owensmouth Avenue, was used for nuclear work by Rockwell's former Atomics International Division from about 1956 to 1959. Nuclear fuel was fabricated, and a small laboratory reactor operated there.

The report said alpha radiation in the Rockwell well samples appeared to exceed the state safe drinking water standard of 15 picocuries per liter of water. However, it said the tests were inconclusive about how much of the radiation was naturally occurring or man-made.

Only one sample exceeded the state standard for beta radiation of 50 picocuries per liter of water, according to the report. But the report said beta readings were higher for unfiltered water samples than for filtered samples, indicating that soil particles in the unfiltered water were radioactively contaminated, possibly by activities on the site.

"'Elevated' is a way of saying we suspect it's above what would be normal amounts," said Phil Chandler, an engineering geologist with the regional board. "I don't see that these levels are something for everybody to begin to beat down any doors over," he said.

The ground-water tests were requested by the regional water board on May 31, in response to disclosures about nuclear work once done at the Canoga plant. "We don't have any reason to believe there's any radioactivity, but we haven't looked," Steve Laffam, environmental affairs manager for Rocketdyne, said at the time.

Rocketdyne and water quality officials have known for years about a major ground-water problem involving chemical solvents from spills and leaky tanks. But before last spring, the state did not request tests for radioactivity, and the firm did not volunteer them.

Please see ROCKWELL, B3

ROCKWELL

Continued from B3

The concern about radioactivity followed reports on radioactive and chemical pollution at Rockwell's Santa Susana Field Laboratory west of Chatsworth, where nuclear work was done from the 1950s until recent years on a much larger scale than at Canoga.

The company's nearby De Soto Avenue plant also was used to fabricate nuclear fuel and run an experimental nuclear reactor from the late 1950s until the early 1980s for federal nuclear agencies.

Under a proposed DOE cleanup plan for Santa Susana, funds also would be included for radiation testing of soil and ground water at the De Soto plant, beginning next year.

TIMES 12/9/86

Rockwell radiation count up

Water elevation 1st at Valley plant

By TONY KNIGHT
Daily News Staff Writer

CANOGA PARK — Elevated radiation levels have been found in ground water underneath Rockwell International's Canoga Avenue plant, the first such levels found near the company's facility in the San Fernando Valley floor, water-quality officials said Monday.

It is unclear whether the slightly elevated levels are from naturally occurring radiation in the soil or from nuclear operations at the plant in the 1950s, said Robert Ghirelli, executive officer of the state Regional Water Quality Control Board.

"It's the first time that we've actually discovered radioactivity at levels that indicate that further investigation is needed," said Ghirelli.

"If we confirm these levels that are in excess of public drinking-water standards, then we're going to have to consult the health officials as to what should be done."

There is no evidence that drinking-water supplies are threatened by the low levels of radioactivity, Ghirelli said. The nearest city drinking-water wells are 10 miles away in North Hollywood.

Spokesmen for the company's Rocketdyne Division, which operates the plant, declined comment on the findings.

Ghirelli said the test results will be discussed at a meeting of all the regulatory agencies involved in the cleanup at Rockwell facilities, which is scheduled for 9 a.m. to 3 p.m. Thursday at the Simi Valley City Council chambers, 2929 Tapo Canyon Road.

The Daily News reported in May that a U.S. Department of Energy environmental survey found radioactive soil contamination problems at the compa-

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Daily News 12/12/89

Radiation level up in water under Valley Rockwell plant

ROCKWELL / From Page 4

ny's Santa Susana Field Laboratory in the Simi Hills, three miles west of Chatsworth.

There was no evidence of a public health threat at the mountain site, the report said, but more testing was needed to determine the extent of radiation contamination resulting from 40 years of nuclear research and testing at the site.

A U.S. Environmental Protection Agency official said Monday that Rocketdyne engineers have maintained the elevated Valley levels are caused by natural background radiation. The EPA said company officials are expected to attend the Thursday meeting.

The elevated levels of gross alpha and gross beta radiation were found in samples taken from seven ground water monitoring wells on Sept. 7 and Oct. 30, according to the regional board reports.

The highest levels were recorded near Building 38 near the corner of Owensmouth Avenue and Vanowen Street where a small reactor was operated from 1956-59 and where nuclear reactor fuel was fabricated.

A third round of samples were taken from 21 wells near the facility last week, and tests will be run to determine the exact radioactive isotopes present to see whether they came from company operations, said David Bacharowski, an engineer for the regional board.

Since May, the Environmental Protection Agency has assumed oversight of the cleanup operation and the DOE has published a proposed $34.6 million cleanup plan.

A task force composed of representatives from all the local, state and federal regulatory agencies involved in the Rocketdyne cleanup was formed and has been meeting monthly to discuss the problem.

The meeting on Thursday at Simi Valley City Hall will be the first time the task force has met in public, said Al Zemsky, EPA spokesman.

"It is not a community meeting," Zemsky said. "It is the work group meeting of the interagencies."

However, he said time would be set aside at the end of the meeting for questions from the public.

"I think it's great, because really it's the community that is most concerned about the cleanup that is going to be necessary and how that cleanup actually takes place," said Estelle Lit, a Northridge resident that has opposed renewal of Rocketdyne's nuclear materials license.

The regional water board ordered tests of monitoring wells at the Canoga Park facility last May after the contamination problems at the mountain field laboratory were revealed.

These wells were installed in 1986 to extract chemical solvent contamination stemming from spills and leaks at the Rocketdyne plant and from a nearby gasoline station.

The tests results released this week show gross alpha radioactivity rose to three times over the 15 pico curie per liter safety level recommended by the state for drinking water.

ENTERPRISE 12/14/89

Radioactivity found in wells

Contamination at Rocketdyne site said not to pose significant threat

By Dean Oesterle
The Enterprise Staff

Radioactive contaminants were found along with high levels of toxic chemicals in new groundwater monitoring wells at Rocketdyne's facility in the Simi Hills, but they do not pose a significant health threat, environmental officials said this morning.

Federal, state, county and regional regulatory representatives and Rockwell officials addressed the findings at a public task-force meeting today at Simi Valley City Hall.

The radioactivity found in the wells was low-level, Rich Vaille, assistant director of hazardous waste management for the Environmental Protection Agency Region Nine, said, adding that it does not pose a significant threat.

"There have been very low levels of radioactive contaminants found, but it's just one more contaminant to be dealt with," Vaille said.

"The important thing is that the contaminants on site don't represent any severe health threat."

An EPA public information officer also emphasized there is no health threat, particularly to area drinking water, and that the latest findings are no surprise to the agency.

"Drinking water supplies are not infected at this time," said Al Zemsky.

Additional wells will have to be drilled to continue to monitor the toxicity and the groundwater movement, officials said.

"In the groundwater report we sent back, we proposed additional wells," Steve Laflam, manager of Rocketdyne's environmental unit, said.

Also, data that shows chemical contamination of the groundwater under Rocketdyne's nuclear research facility is as expected, Zemsky said.

"It confirms prior data that we had," he said.

The new information, part of Rocketdyne's Dec. 1 bi-monthly report to regulators, shows high levels of the toxic solvent trichloroethylene on 70 percent of 17

(Please see WELLS, Page 3)

Wells

(Cont. from Page 1)

new monitoring wells.

That solvent is a suspected carcinogen for humans and has been shown to cause cancer in laboratory animals.

Hydrocarbons, which are found in fuel products such as gasoline, were also found by the tests.

Cleanup operations, estimated to cost $3 million, began this year to remove solvents deposited in the area by the company's rocket testing operations.

Rocketdyne's report on radioactivity in the area is incomplete, Laflam said.

It is incomplete as far as it does not have any radiological data yet," he said during Rocketdyne's presentation, which opened the meeting.

However, Rocketdyne does not expect to encounter problems, such as with tritium in any of the wells, he said.

Testing is being continued to make sure that the groundwater and other contaminants do not move off-site, he said.

Rocketdyne had no additional comments, he said after his presentation.

Regulatory agencies represented at the meeting were: the U.S. Department of Energy, the state Department of Health Services, the Regional Water Control Board, Ventura County Air Pollution Control District, Ventura County Environmental Health Division, U.S. Nuclear Regulatory Commission and the EPA.

Assemblyman Richard Katz, D-Sepulveda said Wednesday he believes the DOE shielded the company from state water-quality investigators.

Richard Nolan, head of the DOE office in Oakland, declined to react to Katz's comments.

Rockwell lab's wells highly contaminated

No immediate threat to drinking water seen

By TONY KNIGHT
Daily News Staff Writer 12/14/89

High levels of toxic chemicals have been found in ground water samples from new monitoring wells at Rockwell International's nuclear research facility in the Simi Hills, state water-quality officials said Wednesday.

Comprehensive tests also were conducted for radioactive contamination, but the reports are not yet complete and will be released later.

Officials with the company's Rocketdyne Division, which operates the field laboratory, declined comment. They said they would discuss the data at a public meeting at 9 a.m. today at Simi Valley City Hall, 2929 Tapo Canyon Road.

The new data shows for the first time that chemical ground-water contamination is a problem underneath the 290-acre facility where nuclear research is conducted for the U.S. Department of Energy, said Robert Ghirelli, executive officer of the Regional Water Quality Control Board.

The findings do not indicate an imminent threat to drinking-water wells near the company's Santa Susana Field Laboratory three miles west of Chatsworth, he said. However, the company will have to dig additional wells

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Rockwell lab's wells highly contaminated

NUCLEAR / From Page 1

to determine the extent of the toxicity, he said.

"There's no doubt that Rockwell is going to have to develop a clean-up plan for this contamination," Ghirelli said. "It looks to be moving toward the (plant's) boundary lines off site, and we need to pin down where the leading edge of the plume is."

The Dec. 5 report on the data collected from 19 newly installed monitoring wells included information on chemical contamination only.

High levels of the toxic solvent trichloroethylene (TCE) were found in more than 70 percent of the 17 new monitoring wells, the report said. TCE is thought to be a human carcinogen, and has been shown to cause cancer in laboratory animals.

The recommended state safety level for TCE in drinking water is 5 parts per billion (ppb). One well sample on the Rocketdyne site contained 1,200 ppb.

> **"There's no doubt that Rockwell is going to have to develop a cleanup plan for this contamination."**
>
> — **Robert Ghirelli**
> executive officer of the Regional Water Quality Control Board

The sampling also revealed hydrocarbons, which are found in fuel products such as gasoline, in some of the wells. State safety standards allow no traces of petroleum products in drinking water.

One well showed levels of toxic benzene at 2 ppb. Benzene is a known human carcinogen, and the state safety level for that chemical is 1 ppb.

Water-quality officials have known about chemical ground-water contamination problems in the Air Force and NASA portions of the 2,600-acre field laboratory since 1985.

A $1 million cleanup operation got under way this year to remove the solvents, which were used in rocket-testing operations.

Ghirelli said regional board investigators had not expanded their ground-water investigation to the DOE portion of the laboratory, where up to 16 nuclear reactors were operated over four decades.

"We haven't focused on that area because we had no indication that these chemicals were being used there," Ghirelli said. "But, obviously, something is getting in that area from somewhere."

Assemblyman Richard Katz, D-Sepulveda, author of the state's toxic pits act, said Wednesday that the DOE had shielded the company from state water-quality investigators.

"Wherever you have the DOE involved, they have given companies the impression that you can do whatever you want and we'll cover for you," Katz said. "I'm confident that there's enough heat on everyone now that people are doing what ought to be done."

Richard Nolan, assistant manager of the DOE's San Francisco field office, said he could not react to Katz's accusations.

But Nolan said that under new guidelines set out last year by Energy Secretary James D. Watkins, the DOE site would be opened fully to state regulators.

"Everything will be accessible and open, and we encourage the public to take an interest in what's going on so we can move in the direction of restoring our credibility and public confidence that we're not presenting a health hazard," Nolan said.

The new well data was gathered in response to a DOE environmental survey released in May that revealed problems with radioactive soil contamination and potential ground-water contamination in the nuclear portion of the field lab.

The report said there was no imminent public health threat, but recommended digging a series of monitoring wells to determine the extent of the problem.

Meanwhile, the DOE has published a draft $34.6 million cleanup plan for the site, which will be carried out over the next five years if it is approved in Washington, D.C.

The new well data was based on samples taken from 19 newly installed wells in the nuclear area, according to the report, which was prepared for Rocketdyne by [illegible]-based ground-water [illegible] Consultants Inc.

DAILY NEWS 12/14/89

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Ventura County Star ☆ Free Press

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Toxic water a big problem at Rocketdyne

Associated Press

Ground water samples from new monitoring wells at a Rockwell International nuclear research laboratory in the Simi Hills contain high levels of toxic chemicals, a state water official said.

The report on data collected from 19 new wells contained only information on chemical contamination. Reports on testing for radioactive contamination were incomplete and were to be issued later.

Robert Ghirelli, executive officer of the Regional Water Quality Control Board, said Wednesday that the new information reveals that chemical contamination of ground water is a problem beneath the facility.

The Santa Susana Field Laboratory is operated by Rockwell's Rocketdyne Division and conducts research for the U.S. Department of Energy.

"There's no doubt that Rockwell is going to have to develop a cleanup plan for this contamination," Ghirelli said. "It looks to be moving toward the (plant's) boundary lines of site, and we need to pin down what the leading edge of the plume is."

The sampling doesn't indicate an immediate threat to drinking water wells near the field laboratory, but the company will have to dig more wells to determine the extent of the contamination, he said.

According to the Dec. 1 water board report, there were high levels of the toxic solvent trichloroethylene (TCE), which is thought to be a human carcinogen and has caused cancer in laboratory animals.

While the recommended state safety level for TCE in drinking water is five parts per billion, one well sample on the Rocketdyne site contained 1,300 parts per billion.

(Please turn to A-8, Col. 1)

Toxic water

Continued from A-1

Hydrocarbons, found in fuel products, showed up in some wells. State standards do not allow any traces of petroleum products in drinking water.

Benzene was found in one well at the level of two parts per billion. The safety level is half that.

Authorities have known about chemical contamination of water beneath Air Force and NASA areas of the 2,800-acre laboratory since 1988, and a 10 million effort began this year to clean up the solvents used in rocket testing.

Ghirelli said investigators hadn't expanded their ground-water investigation to the Department of Energy portion of the laboratory, where up to 10 nuclear reactors were operated over four decades.

"We haven't focused on that area because we had no indication that those chemicals were being used there," Ghirelli said. "But, obviously, something is getting in that area from somewhere."

STAR ☆ FREE PRESS 12/15/89

Rockwell contamination spreading toward Simi

No immediate risk from ground water seen

By [illegible] 12/15/89

Federal and state regulators said Thursday that new tests show toxic chemical contamination of ground water is moving from Rockwell International's Santa Susana Field Laboratory toward Simi Valley.

At a federal-state task force disclosed findings at a public meeting in Simi Valley, company officials said they will drill new off-property wells to determine the extent of the contamination.

"There were two surprises," said Jon Ross, project engineer for the California Regional Water Quality Control Board. "The concentrations of the organics (toxic chemicals) was higher than we thought, with the potential to flow off the site greater than we thought."

Ross was among 10 federal and state regulators attending the interagency task force meeting at the Simi Valley City Council Chambers.

The task force was formed under the direction of the U.S.

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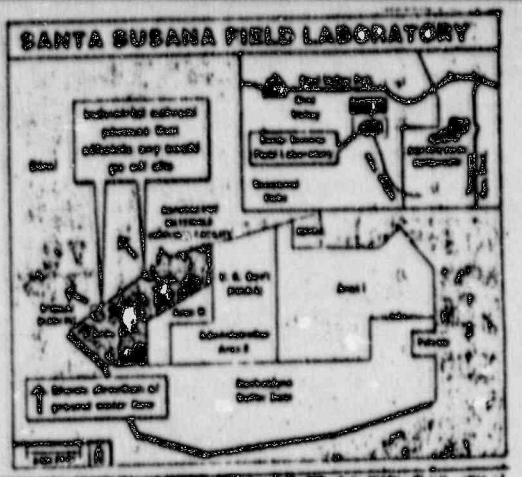

Steve Lafflam, Rocketdyne's environmental manager, points out ground water locations and borings of a contamination study Thursday. Officials said off-property wells would be drilled to determine the extent of the pollution.

Rockwell pollution may be off site

ROCKWELL / From Page 1

Environmental Protection Agency after the Daily News disclosed May 14 that a Department of Energy survey had found toxic and radioactive contamination at the 42-year-old nuclear and rocket test facility, three miles west of Chatsworth. The report said there was an immediate health risk, but more testing was needed to determine the extent of the pollution.

The potential off-site contamination was found in tests conducted by state water officials on a series of new wells that were dug after disclosure of the contamination problems. Results of tests for radioactivity are not yet available.

Officials from seven agencies agreed Thursday that the toxic industrial solvent trichloroethylene (TCE) probably could not have traveled far from the facility's boundary, based on previous tests of springs and wells some distance from the property. The nearest drinking water well is over a mile from the lab, Ross said.

"There is no additional health risk," said R.J. Saille, regional assistant director of the EPA's Toxics and Waste Management Division.

"We know the (chemical) plumes were under the site, and now we're going to put in monitoring wells to see if they have gone off site," he said. "The important thing is that we fully characterize the plumes so the water can be pumped and treated."

Paul Stovall, spokesman for the company's Rocketdyne Division, said previous assurances that contamination had not spread off the 2,668-acre research lab in the Simi Hills referred to radioactive contamination only. Test results for radioactivity in the new wells won't be available for a month or two, said Steve Lafflam, Rocketdyne's environmental manager.

"The question (of off-site migration) so far has focused on the radioactivity," Stovall said.

The new data showing the potential for off-site chemical contamination comes from 19 wells drilled in the nuclear section, or Area IV, last fall after local, state and federal officials pushed Rocketdyne for more monitoring in response to the disclosure of the DOE environmental survey.

The 1988 DOE survey of the 290-acre nuclear test portion of the lab found toxic chemical and radioactive contamination of the environment.

The Daily News reported Thursday the results of the new well sampling, which showed for the first time that TCE is a problem under the site where nuclear research was conducted for the DOE over four decades, regulators said.

The December post by Phoenix-based Groundwater Resources Consultants Inc. found high levels of TCE in 20 percent of the new wells. The recommended state safety level for TCE in drinking water is 5 parts per billion (ppb). One well sample on the Rocketdyne site contained 1,200 ppb, and another near the boundary tested at 660 ppb, Ross said.

TCE is thought to be a human carcinogen based on laboratory tests involving animals.

The company has proposed drilling ten new monitoring wells off their property, but Ross said he is recommending four to eight wells downhill from the facility toward Simi Valley.

"They need to go a safe distance," Ross said, adding the wells must be fairly deep. "If it (the chemical contamination) is deep, it could reach higher quality aquifers that potentially could be used for drinking some day."

Water-quality officials said Area IV will be added to a continuing $3 million cleanup operation of chemical ground-water contamination problems in the Air Force and NASA portions of the lab identified in 1985.

However, DOE official Jim Hartman said the agency may ask the Air Force or NASA to pay for the cleanup in Area IV if the solvents come from their operations.

The task force, created after Rep. Elton Gallegly, R-Simi Valley, ordered the EPA to take an active role following the May disclosures, met for the first time in public and with Rocketdyne officials present.

Represented on the panel were officials from two Ventura County environmental agencies, the state Department of Health Services, and Regional Water Quality Control Board, and the federal DOE, EPA and Nuclear Regulatory Commission.

During the six-hour meeting, company officials also presented the results of testing at 47 wells that showed no detectable traces of radioactive hydrogen, or tritium, in the ground water.

In December, the EPA said it found a sample of ground water contained trace levels of tritium in the vicinity of Building 59 where a prototype of a space-based nuclear reactor was tested in the mid 1960s.

Lafflam said retesting at that site by the company found no detectable tritium. However, he said the test results were not necessarily contradictory to the EPA's because radioactivity is different to measure at very low levels.

"Their number is a real number," Lafflam said. "That's why we're going to continue to watch in Area IV for tritium."

Reports by the DOE and EPA also called for additional environmental information from the facility and for improvements in monitoring methods.

The EPA is seeking additional data on any uncontrolled releases of TCE or other solvents into the air before deciding whether the Santa Susana lab should be placed on the National Priorities List under the federal Superfund program, according to documents released Thursday.

The DOE released a report by consultants, Oak Ridge Associated Universities, that made 17 recommendations on Rocketdyne's monitoring program. In July, EPA inspectors criticized the company's progress and said it was unable to guarantee that contamination had not spread.

The Oak Ridge report concluded there is no evidence of radiological conditions posing an imminent threat to the public health or the environment.

Daily News 12/15/89

Times 12/15/89

State Considers Study of Rockwell Health Risks

By MYRON LEVIN
Times Staff Writer

12/15/89

Responding to requests from area lawmakers and citizens, state health officials Thursday promised to look into whether a major health study of workers and neighbors of the Santa Susana Field Laboratory is justified, following reports of chemical and radioactive contamination there.

But researchers with the state Department of Health Services would not commit themselves to a full-blown health study involving the lab west of Chatsworth, where for more than 30 years Rockwell International has done nuclear work for the federal government.

"We've been asked to look at the possibility that either workers who've worked at the facility or people who have resided in the area ... may have had health impacts," said Dr. Lynn Goldman, chief of environmental epidemiology and toxicology for the state Department of Health Services.

Before the inquiry becomes a major research project, Goldman said, investigators first must determine if there are enough logical suspicions to warrant the study and sufficient data to reach definitive conclusions.

An investigator is scheduled to begin gathering data next week.

Goldman said the epidemiological studies branch gets about two dozen requests a year to conduct health studies of areas where unusual disease patterns or unusual industrial hazards are suspected.

She said all the requests are followed up, but that typically only one or two per year result in "an extensive study" because of staffing constraints, or lack of good leads or persuasive evidence. But she said the department in many cases produces written reports or holds public meetings.

Dan Wallace, president of the anti-nuclear Rocketdyne Cleanup Coalition, expressed hope that Rockwell "would open the records of their employees for that part of the study. That would go a long way to assuring members of our coalition that they're really interested in finding the scope of the problem."

If such a request were made, Rockwell's legal staff would have to rule on it, company spokesman Pat Coulter said.

Most of Santa Susana's [illegible] acres are devoted to rocket testing for NASA and the Air Force.

But in the 1950s, part of the site became a major hub of nuclear research for the Atomic Energy Commission and its successor, the Department of Energy. Work included fabrication and recycling of nuclear fuel, and operation of 16 small nuclear reactors, the last one decommissioned in the early 1980s. Much of the activity in recent years has been cleanup of contaminated soil and buildings.

Despite spills and accidents, Rockwell officials say no significant contamination ever left the site.

And in recent months state and

Please see ROCKWELL, B8

ROCKWELL: State Weighs Major Health Study

Continued from B3

federal agencies have said radioactive and chemical pollution awaiting cleanup at the site poses no immediate health threat.

Plans for the health inquiry were revealed Thursday at a meeting of the task force of agencies involved with cleanup of the site. About 50 citizens and officials attended the four-hour meeting at Simi Valley City Hall.

Rockwell official Steve Lafflam told the gathering that new data on ground water pollution under the DOE part of Santa Susana contained "no surprises." The most polluted water sample from 19 new monitoring wells contained the chemical solvent trichloroethylene, or TCE, at a level of 1,200 parts per billion—well above the drinking water standard of 5 p.p.b., although there are no drinking water wells in the area. The presence of TCE in ground water there had been previously established.

But with ground water flowing toward the edge of the property, some tainted water probably has seeped off the site, said Jim Ross, an engineer with the Los Angeles regional office of the state Water Quality Control Board. Ross said Rockwell will drill off-site wells to investigate.

The discovery of off-site pollution could trigger new attacks on Rockwell and increase cleanup costs.

TCE, used to rinse rocket engines and for other metal cleaning work, is much more concentrated in ground water in the NASA and Air Force portions of Santa Susana. Cleanup is already under way there, with aeration towers and other treatment systems treating about 300,000 gallons of ground water per day, Lafflam said.

ENTERPRISE 12/17/89

Opinion

Editorial

Continuing concerns

A just-released Department of Energy report about previously undetected subsurface radioactive contamination at Rocketdyne may be cause for concern. Or it may not.

While early during a task force meeting last week officials acknowledged contaminants and high levels of toxins were found in new groundwater monitoring wells, they deemed them no significant health threat. It was revealed later, though, there may be some previously untested old leach fields that may also be contaminated.

Officials again assure, though, there is no significant health risk. But we wonder how they can make such a claim, considering the newfound contamination sites reportedly are as yet untested.

At the same time, state health officials are gauging the seriousness of the Rocketdyne contamination problem and appear to be waffling about whether to conduct any massive investigation into any health-related impacts on Rocketdyne workers and residents living nearby.

They seem to be viewing this as just another in the many half-crazed requests they receive from neurotic citizens who happen to note some sort of health trend and demand a full-scale probe. After all, how could plug citizens expect state health officials to study each and every request they receive — and there are at least two dozen a year. These high-riding officials only have time for two such probes a year.

In deciding whether to engage in a study we hope our state health officials strongly consider the high profile of this case and the high level of concern. And, the fact that 30 years of nuclear testing in the hills above heavily populated areas is a legitimate concern — whether or not there have indeed been higher incidences of cancers or other serious diseases. And whether or not their study finds any significant health trend.

Meanwhile, we also reported Rocketdyne and several groups that are legally challenging the company's attempt to renew its license to operate a nuclear "hot lab" have begun [illegible]

Which would be wonderful, except for the fact they are meeting in secret. Away from the light of day, under a previously agreed-upon cone of silence, in which case we think it stinks.

The public, supposedly, is being represented in this matter by such public groups as the Susana Knolls Homeowners Association, Rocketdyne Cleanup Coalition, Natural Resources Defense Council, Southern California Federation of Scientists, Committee to Bridge the Gap and Los Angeles Physicians for Social Responsibility.

Yet the officers of those groups aren't talking about this meeting, obviously preferring to keep the rest of the public in the dark.

We urge these groups to reconsider. The public has the right to be kept well informed every step of the way. These discussions, which we believe are being conducted in the public's interest, cannot and should not be held under cloak by refusing to comment, these groups are guilty of the same sort of cover-up that [illegible]

ENTERPRISE 12/15/89

Dispelling past beliefs: Enterprise Dec. 9, 1989

Low-level radiation poses greater health risk

WASHINGTON (AP) — Low-level exposure to X-rays and gamma rays pose a cancer risk three to four times greater than previously believed, the National Research Council reported in a study released today.

Based on new methods of estimating and assessing the health effects of radiation, the committee concluded that a 1980 study by another NRC committee significantly underestimated the cancer risk from the low level of X-rays and gamma rays.

The risk for solid tumor cancer is three times greater than the earlier estimate, and the risk for leukemia is four times greater, the committee concluded.

And the committee found a much greater danger for mental retardation among unborn babies exposed to low-level radiation from the eighth to 15th weeks after conception.

Women, the report said, are slightly more likely than men to develop cancer from low levels of radiation, and that in some types of cancer, children are more susceptible to radiation effects than are adults.

The report, called Biological Effects of Ionizing Radiation, or BEIR V, is part of a series of studies by the NRC assessing the health effects of the type of radiation produced in nuclear reactions, from natural uranium, and from the stars, such as the sun. The committee said its study updates risk estimates contained in the BEIR I study released in 1980.

New studies of low-level radiation were conducted, the committee said, because of concern about fallout from nuclear reactor accidents, such as the 1979 Three Mile Island accident in Pennsylvania and the Soviet accident at Chernobyl in 1986.

The study said there also was new concern about radioactivity around nuclear facilities, and that there was new knowledge about the extent of radiation exposures from natural sources and medical uses.

The study is based partly on the medical history of 76,000 survivors of the 1945 atomic bombings in Japan, health studies of workers at nuclear facilities and the records of patients who were treated with X-rays for certain medical conditions.

Part of the increased cancer danger seen from low-level radiation is based on a reduced estimate of the radiation received by Japanese survivors of the Hiroshima and Nagasaki atomic bomb attacks.

Previously, the committee said, neutron radiation was erroneously considered to have a major influence on the health of the A-bomb survivors. Removing neutrons from the equation, it said, means that the survivors are experiencing higher rates of cancer from lower radiation doses.

This is interpreted by the committee to mean that there is an increased risk of cancer and other health problems from low-level radiation.

Radiation levels and duration of exposure result in different amounts of health risk, the committee said.

ENTERPRISE 12/21/85

Rocketdyne talks in question

By Susan Chosen

The Rocketdyne Cleanup Coalition, which is opposing Rocketdyne's application to continue operating a nuclear lab at its Santa Susana Field Laboratory, announced that the company terminated negotiations.

But this morning Rocketdyne spokesman Pat Coulter denied that negotiations with the citizens group have been cut off.

"That's incorrect," Coulter said. "We have not terminated negotiations. ... There's still plenty of room to talk.

"This whole thing is a major step forward for both of us."

Rocketdyne initiated negotiations last week with the six groups and three individuals who are legally intervening to block relicensing of the company's nuclear "hot lab."

The intervenors met with Rocketdyne officials twice — Thursday and Saturday, Coulter said. Also, coalition leader Dan Wallace was contacted on Thursday by a Rocketdyne official, he said, but he would not comment about what was said.

Both sides have agreed to keep the contents of negotiations in confidence to ensure that there is an

(Please see TALKS, Page 5)

Talks

(Cont. from Page 1)

atmosphere of openness.

Still, Wallace said he was definitely told by a Rocketdyne official there was nothing left to discuss.

"He told me in no uncertain terms that Rockwell — parent company of Rocketdyne — was not interested in continuing the discussions," Wallace said. "They terminated settlement talks."

According to Wallace, the only option left open to the intervenors was to put their requests into writing.

"They said we will not meet again unless you submit in writing some other proposal," Wallace said. "That's what people say when they don't want to talk to you — 'Hey, put it in writing.'" Wallace said. "Nobody has as far reduced their position to writing."

Barbara Johnson president of the Simi Valley Homeowners Association and a member of the coalition, said the intervenors understood Rocketdyne's position, after the Thursday phone call, to be that there were no grounds for further negotiations.

Nuclear foes pass legal jump

Named intervenors in bid by Rockwell

By TONY KNIGHT
Daily News Staff Writer

Two environmental groups have been granted legal status to intervene in Rockwell International's application for renewal of its license to handle nuclear materials at its facility in the Simi Hills.

A judge for the Nuclear Regulatory Commission issued an order Wednesday granting the Natural Resources Defense Council and Physicians for Social Responsibility legal status as intervenors in the case as a single party.

"We are at this point not inclined to oppose a one-year extension for the purpose of completing the experiments that we understand Rocketdyne hopes to do, and then decommission and decontaminate the site," said Mary Nichols, a lawyer for the NRDC in Los Angeles.

Four San Fernando Valley residents, Jon Scott, Estelle Lit, Jerome Raskin and Don Wallace, also have been designated intervenors in the relicensing case.

Concerns about the Santa Susana Field Laboratory were raised last May when the Daily News reported that a U.S. Department of Energy environmental survey found problems with radioactive contamination.

The report said there was no evidence of an imminent public health threat, but more investigation was necessary to determine the extent of the problem.

Last June, the company's Rocketdyne Division, which operates the mountain laboratory three miles west of Chatsworth, applied for a 10-year renewal of the license for the nuclear Hot Laboratory.

Faced with community opposition and a lack of business for the hot lab, the company announced in October that it would seek a one-year extension and permanently close the lab in 1990.

DAILY NEWS 12/89

Water official defends extent of '84 Santa Susana probe

By TONY KNIGHT
Daily News Staff Writer

State water officials moved quickly to investigate groundwater contamination at Rockwell International's research laboratory in Simi Hills, the region's top water quality official said in a letter released Monday.

Responding to a state Senate Toxics Committee inquiry, Robert Ghirelli, executive officer of the Regional Water Quality Control Board, said in a Jan. 5 letter that his staff "acted with dispatch" in ordering a cleanup at rocket testing portions of the mountain site when contamination was discovered in 1984.

Ghirelli did not explain why more extensive testing was not done prior to finding groundwater contamination at the nuclear research portion of the Santa Susana Field Laboratory in November 1989 — five years behind the cleanup investigation of the other areas.

"There was nothing to prompt our investigation," Ghirelli said in the letter to state Sen. Art Torres, the committee chairman.

"There would have to be something that triggered our interest in Area IV (where nuclear research was conducted for the U.S. Department of Energy)," Ghirelli said. "There has to be a triggering mechanism for an agency to use its regulatory oversight to investigate certain situations."

Robert Fredenberg, consultant to the Toxics Committee, said Ghirelli's letter does not adequately explain why the cleanup in the nuclear research area has lagged behind. He said Torres is concerned the board's oversight and enforcement program may be lacking.

"They did respond to our questions, but it's pretty clear that the responses raise a whole new set of questions," Fredenberg said Monday.

"I guess we should have gone further possibly and asked why was there this gap, and if everything is going well, why are you still having problems at the site," he said.

See ROCKWELL / Pg 6

Lag in lab cleanup questioned

ROCKWELL / From Page 4

Torres has not reviewed the regional board's Friday response and was not available for comment, his aides said.

Concerns about operations at Santa Susana have heightened since the Daily News disclosed May 14 that a Department of Energy survey found toxic and radioactive contamination at the facility. The DOE report said the contamination posed an immediate public health threat but called for more extensive monitoring to determine the extent of the problem.

Fredenberg said he was unsure how the Toxics Committee would proceed, but he said additional questions would be posed to water quality officials and to the state Department of Health Services, which assumed oversight of the groundwater cleanup operation in May 1988.

"If you read their response, it says 'Well this has been turned over to DHS for cleanup activities in May '88,'" Fredenberg said. "That really doesn't tell us much."

Up to 16 nuclear reactors were operated at the site for the DOE since the early 1950s. All are now inactive and most have been decontaminated and removed from the site.

The DOE has released a $16 million, five year cleanup plan for the low-level radioactive contamination and the decommissioning of the nuclear facilities remaining at the site.

The company's Rocketdyne Division, which operates the field laboratory, dug 19 new monitoring wells on the nuclear reservation last summer, and data released in November indicated toxic solvents in the ground water under the site.

Regional board investigators said the underground toxic plumes do not present an immediate health hazard, but they could be moving off the plant site.

In a Dec. 18 letter to the regional board, Torres raised questions about the regional board's role in the cleanup. He noted that toxic solvents were discovered in the ground water in 1984 in the field laboratory Areas I, II and III.

DAILY NEWS 1/90

Wright seeks full Rocketdyne health study

By TONY KNIGHT
Daily News Staff Writer 1/90

A full health study of employees at Rockwell International's Rocketdyne Division and residents living near the company's nuclear facilities in the Simi Hills should be conducted by the state, Assemblywoman Cathie Wright, R-Simi Valley, said Tuesday.

Wright introduced urgency legislation on Monday to fund the health study this year. She said she expects that a preliminary study now being done by the state Department of Health Services will lead to a full-scale study into whether activities at the facility have affected people's health.

"This is a nudge to the department," Wright said. "There's no question about it."

Concerns about operations at the Santa Susana Field Laboratory have heightened since the Daily News reported May 14 that a U.S. Department of Energy survey found that the facility three miles west of Chatsworth has problems with radioactive soil contamination and chemical ground water contamination.

Officials said there is no evidence of an imminent human health threat but called for more testing to determine the extent of the problem.

Some residents in the area have organized the Rocketdyne Cleanup Coalition and called for a role in the cleanup program and for the health studies to see if 40 years of nuclear research at the site have created health problems for company workers or nearby workers.

"We're very pleased," said Richard Sason, president of the Los Angeles chapter of Physicians for Social Responsibility, a member of the coalition.