#### December 6, 1978

For:

The Commissioners

From:

T. A. Rehm, Assistant to the Executive Director for Operations

Subject: WEEKLY INFORMATION REPORT - WEEK ENDING DECEMBER 1, 1978

A summary of key events is included as a convenience to those Commissioners who may prefer a condensed version of this report.

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Rehm, Assistant to the Executive Director for Operations

Contact: T. A. Rehm 49-27781

<sup>\*\*</sup>Deleted from Commissioners and PDR copy.



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<sup>\*</sup>No input this week.

# WEEKLY INFORMATION SUMMARY Week Ending December 1, 1978

## Oyster Creek

On November 24 the staff issued a license amendment to Jersey Central Power and Light Company modifying the Technical Specifications. The license amendment was issued to the licensee following review of the repair to the crack core spray sparger.

## Yellow Creek Units 1 & 2

Construction permits were issued to the Tennessee Valley Authority on November 29.

#### New Haven Units 1 & 2

New York State Electric & Gas Company tendered an application for construction permits for New Haven Units 1 & 2 on November 22. This is the first application to reference both approved NSSS and BOP standard plant designs.

## Black Fox Units 1 & 2

On November 30 NRC issued an amendment to the LWA for extending excavation activities to Unit 2.

#### Purging at Power Reactors

As of November 29, all power reactor licensees are requested within 30 days to submit for staff review and approval justification for either limited or unlimited containment purging. Licensees must also evaluate the design of bypass circuitry.

## Georgia Institute of Technology

On November 30 Georgia Institute of Technology was granted a Category I exemption from the physical protection requirements of 10 CFR 73.50 and 73.60 for a period of one year. This action permits the licensee to store slightly more than the formula quantity of non-exempt special nuclear material without imposing additional security measures.

## NRC/EPA MOU

Copies of the NRC/EPA Memorandum of Understanding on the Feasibility/Planning Study were transmitte to EPA for signature. In addition, the first draft of milestones for the study has been prepared for review by the NRC/EPA/HEW Review Group.

## Amendments to 10 CFR Part 35

The EDO issued effective amendments to 10 CFR Part 35 which require medical therapy licensees to confirm the removal of radioactive implants at the end of treatment by: (1) a source count and (2) a radiation survey of the patient. The final rule, published in the Federal Register November 28, will become effective on December 28, 1978.

## Potential Risks from Radiation Exposure

On November 28 NRC staff met with representatives of several labor unions to discuss the necessity for, and possible content of, a regulatory guide which would be used as an instructional aid in informing workers about potential risks due to occupational radiation exposure received in connection with NRC-licensed activities. The principal question from the unions to the staff was, "If I am exposed to radiation within the NRC's limits, will I get cancer?"

## Amendment to 10 CFT Part 50.55a

Amendment to 10 CFR Part 50.55a, Codes and Standards, was issued to clarify provisions which deal with requirements for inservice inspection of nuclear power plants.

## Methods for Low-Level Radioactive Waste Disposal

"Screening of Alternative Methods for the Disposal of Low-Level Radioactive Wastes" was published. This report contains results of identifying alternative methods to shallow land burial and screening analysis used to select the alternatives to undergo further detailed study.

## OFFICE OF ADMINISTRATION

Week Ending December 1, 1978

## ADMINISTRATION OF THE FREEDOM OF INFORMATION ACT

#### STATUS OF REQUESTS

	Initial Request	Appeal of Initial Decision
Received	364	36
Granted	254	10
Denied	66	18
Pending	44	8

## ACTIONS THIS WEEK

#### Received

(An individual requesting information about himself) (78-332)

Rich Deyo, Energy Research and Information Foundation (78-333)

## Granted

Donald F. Sacha, (78-305)

Winnifred F. Sullivan, Keck, Cushman, Mahin and Cate (78-311)

Dean Hansell, State of Illinois (78-313) Requests copies of performance appraisals or other evaluations while employed with the NRC.

Requests documents which indicate the Commission granted the exemptions to 20 reactor licensees from Design Criterion 50.

In response to a request for a copy of Atomic Energy Commission reports on the safety of nuclear generators, made available to the requester a copy of the Executive Summary of WASH-1400 and informed him that other documents were in the PDR.

In response to a request for the LaSalle Nuclear Power Plant portion of the "Status Summary Report" and correspondence regarding the scheduling of the LaSalle Nuclear Power Plants contained in the files of MPA, made available these records.

In response to a request for documents relating to radioactive materials buried or stored in Illinois, informed the requester that the requested documents are located in NRC's Region III Office in Illinois.

CONTACT: J. M. Felton 492-7211

## Granted, Cont'd

Kathryn Hooker, (78-316)

Jim M-Nairy, (/8-324)

Lynn Connor, Doc-Search Associates (78-326)

#### Denied

D. R. Young, General Electric Company (78-225)

Kathleen M. Ragan, Kinetic Research, Inc. (78-279)

A. Kranish, Trends Publishing, Inc. (78-A-22-78-195) In response to a request for a copy of the Draft Environmental Statement on the Allens Creek nuclear power plant, made available to the requester a copy of the report.

In response to a request for a copy of Topical Report EI/NNI-77-7-NP, "Radwaste Volume Reduction System", made available to the requester a copy of the Topical Report.

In response to a request for two documents on neutron shielding relating to the Trojan and St. Lucie 1 nuclear power plants, informed the requester these documents are in the NRC Public Document Room.

In response to a request for a copy of the proposal submitted by Ebasco Service, Inc. in response to RFP RS-77-44, made available a copy of the released portions of the proposal, and denied five documents containing confidential business (proprietary) information.

In response to a request for a copy of the proposal for NRC Contract 03-78-161, entitled "Determination of Occupational Man-REM Exposures", denied portions of the technical proposal which contains confidential business (proprietary) information.

THE EDO DENIED ON APPEAL a draft working paper entitled "Comprehensive Evaluation Report on the Atomics International Desoto Avenue Plant at Canoga Park, California" based upon exemptions (1), (4), and (5). THE COMMISSION DENIED ON APPEAL two documents based upon exemptions (1), (4), and (5) and released one document which, at the time of the initial denial, was pending review.

#### DIVISION OF CONTRACTS

Week Ending December 1, 1978

#### RFP'S ISSUED

RFP RS-NMS-79-029 (Formerly 78-065)

Title - Synthesis for Physical Security and Material Control and

Accounting Assessment Results

Description - Develop methods for combining observations of MC&A Assessment Team members, develop a method for synthesizing the results of the Physical Security and MC&A assessments, and develop a draft handbook that explains the methodology for deriving the measures of effectiveness and synthesizing them into the final statement of adequacy.

Period of Performance - Ten months
Sponsor - Office of Nuclear Material Safety and Safeguards
Status - The solicitation was issued November 20, 1978. Proposals are due January 4, 1979.

#### PROPOSALS UNDER EVALUATION

1. RFP RS-RES-78-193

Title - Evaluation of Reactor Radiation Streaming
Description - Evaluate accuracy of three-dimensional Monte
Carlo computer programs in calculating dose
rates inside reactor containments due to
radiation streaming.

Period of Performance - Twelve months Sponsor - Office of Nuclear Regulatory Research Status - Best and Final offers due December 15, 1978.

2. RFP RS-NMS-78-058

Title - Safeguards for High-Level Waste Repositories

Description - Provide to the NRC a technical basis for determination of safeguards requirements for geologic repositories for high-level waste.

Period of Performance - Sixteen months

Sponsor - Office of Nuclear Material Safety and Safeguards

Status - The Source Selection Panel met on November 28, 1978 to recommend selection of a contractor to perform this effort.

# ITEMS OF INTEREST DIVISION OF SECURITY WEEK ENDING DECEMBER 1, 1978

A demonstration was held at 1717 H Street on November 30, 1978, as part of an International Day of Protest, to prevent NRC export Licensing of a Westinghouse Nuclear Power Facility to the Philippines. Approximately 30 to 50 demonstrators participated in the demonstrations which culminated without incident with the presentation of a petition to the NRC through Mr. Frank Ingram, Office of Public Affairs. Similar demonstrations were to be held throughout the U.S. and other countries.

# DIVISION OF TECHNICAL INFORMATION AND DOCUMENT CONTROL Week ending December 1, 1978

#### TRANSLATIONS

The following translations were received by the Division of Technical Information and Document Control during the week of November 27 - December 1, 1978. Availability is indicated.

#### German

- \* BF-R-62.519-1. Improvement of a Drag-Body for the Mass Flow Measurement in Blowdown Experiments: Part 1. G. Hampel, Dr. W. Soffke, and H. Schultz. Prepared by Battelle-Institut E.V. Frankfurt am Main for the Federal Ministry for Research and Technology (Bundesministerium für Forschung und Technologie), F.R. Germany. April 1978. 109 pages. (TIDC 474).
- \*\* BMFT-RS-78-C. Condensation Phenomena IV, Part II: Partial Project A: Pressure Loads (Final Report). Kraftwerk Union, Reactor Technology, Erlangen, F. R. Germany. October 1976. 129 pages. (TIDC 454).
- \* BMFT-RS-93. Experimental Studies on Forces of Critical Two-Phase Jets for Transverse and Longitudinal Cracks in Pipelines. Kraftwerk Union, Reactor Technology, Erlangen, F.R. Germany. October 1975. 115 pages. (TIDC 478).
- \* GRS-S-19. Opinions on Nuclear Energy Questions: Presentation of Events in the Years 1975 and 1977 (RWE Bayernwerk Nuclear Power Plant, Gundremmingen). L. F. Franzen and H. May. Gesellschaft für Reaktorsicherheit (GRS) mbH, Cologne, F. R. Germany. April 1978. 27 pages. (TIDC 494).
- \* GRS-S-20. Opinions on Nuclear Power Questions: Biblis C Nuclear Power Plant: Select Questions and Answers. H. Heller and H. May. Gesellschaft für REaktorsicherheit (GRS) mbH, Cologne, F.R. Germany. April 1978. 14 pages. (TIDC 495).
- \* Kr = 2505. SING 1: A Computer Code for the Calculation of Transient, Three-Dimensional Incompressible Potential Flows According to a Singularity Procedure. R. Krieg and G. Hailfinger. Institute for Reactor Development, Nuclear Safety Project, Kernforschungszentrum Karlsruhe GmbH, Karlsruhe, F.R. Germany. March 1978. 56 pages. (TIDC 479).

<sup>\*</sup> Available in NRC Library

<sup>\*\*</sup> Available TIDC only.

## DIVISION OF TECHNICAL INFORMATION AND DOCUMENT CONTROL

#### Translations continued

## Japanese

- \*\* JAERI-M-7624. Report on Data from Small Scale Tests of the Effects of Pressure Control on BWR Containment Vessel, No. 1. (Pool-Swell Test: Runs 106, 111, 114, 153, 160, 161, 162, 164, and 165). Y Kukita, K. Namatama, M. Okazaki and M Shiba. Japan Atomic Energy Research Institute, Japan. April 1978. 23 pages. (TIDC 502). Will be printed as NUREG/TR report.
  - \* JAERI-M-7656. A Study on the Movements of Upper Head Injection System with ROSA II. ROSA Group Safety Engineering, Japan Atomic Energy Research Institute, Japan. May 1978. 159 pages. (TIDC 503).

<sup>\*</sup> Available in NRC Library

<sup>\*\*</sup> Available TIDC only.

#### OFFICE OF NUCLEAR REACTOR REGULATION

WEEKLY ITEMS OF INTEREST (Week Ending December 1, 1978)

## Fort St. Vrain

On November 27, 1978 oil from a leaking hydraulic valve dripped onto an uninsulated steam trap in the main steam line located in the turbine hall. The oil started to smoke and plant personnel notified the Plattville Fire Department to be on standby. The smoke and fumes were cleared within two minutes and the fire department standby was cancelled. At no point were flames evident, just fumes and smoke. Region IV I&E does not consider this event to be reportable, however it received some local news attention (via Plattville news sources which monitor fire department calls) and the Denver Post made an inquiry to NRC concerning the event.

During recent fluctuation testing, the imposed limits on steam outlet temperatures were exceeded. PSCo is scheduled to meet with the staff on December 14 to explain why and how the limits were exceeded and whether it is safe to continue fluctuation testing. In the mean time fluctuation testing has been suspended and FSV has been operating in a steady-state, non-fluctuating mode at a power level of 65%.

If the explanation is satisfactory, the staff will likely permit further fluctuation testing but this decision might not be available until early January. The schedule for fluctuation testing above 70% power level is therefore postponed at least until the middle of February 1979.

## Brunswick Unit No. 1

The most recent ultrasonic examination of the four recirculation pump riser safe-ends on Brunswick Unit No. 1 revealed no significant changes in the previously identified indications. Power operation is expected to continue until the refueling outage, scheduled to commence in January 1979.

Meetings have been scheduled during the week of December 4, 1978 between (1) DOR & I&E to better understand the significance of the detected indications, and (2) the NRC staff & CP&L to determine course of action to be followed during and subsequent to the upcoming refueling outage with regard to these safe-ends.

## Oyster Creek

On November 24, 1978, the staff issued a license amendment to Jersey Central Power and Light Company modifying the Technical Specifications to include inservice inspection and special reporting requirements of the inspection of the Oyster Creek core spray spargers every refueling for the next 5 refuelings. The license amendment also redefines the acceptable flow rates of the core spray systems.

The license amendment was issued to the licensee following review of the repair to the cracked core spray sparger. The repair will help restrict flow from the existing crack to a pre-determined amount and an increase in the flow of the repaired sparger will maintain flow to all the nozzles at or above previously reviewed values. The new inspection and reporting requirements will assure that no additional significant cracking will go undetected.

## Yellow Creek Units 1 & 2

The ASLB issued a favorable initial decision on November 24. Construction Permits were issued to the Tennessee Valley Authority on November 29.

## New Haven Units 1 & 2

New York State Electric & Gas Company tendered an application for construction permits for New Haven Units 1 & 2 on November 22. This is the first application to reference both approved NSSS and BOP standard plant designs.

## Arkansas Nuclear One - Unit 2

Amendment No. 7 to the operating license was expected to be issued on December 1. This amendment permits the plant to go critical and to operate subsequently at full power.

## Black Fox Units 1 & 2

An amendment to the LWA was issued on November 30. The original LWA was issued in July and, at the applicant's request, applied only to Unit 1. This amendment extends excavation activities to Unit 2.

## Containment Ventilation Systems

On November 29, 1978, a generic letter relating to operation of containment ventilation systems at power was issued to all power reactor licensees. The letter requests licensees to submit for staff review and approval justification for either limited or unlimited containment purging. In addition, the letter requires that licensees evaluate the design of bypass circuitry in their facilities to assure that unintentional bypass of isolation and safety actuation signals is precluded. Licensees are required to submit a schedule for development of justification for continuation of purging, or a Technical Specification change prohibiting purge at power, within thirty days.

## Georgia Institute of Technology

On November 30, 1978, Georgia Institute of Technology (Reactor License No. R-97, Docket No. 50-160) was granted a Category 1 exemption from the physical protection requirements of 10 CFR 73.50 and 73.60 for a period of one year. This action permits the licensee to store slightly more than the formula quantity of non-exempt special nuclear material (SNM) without imposing additional security measures as would be required when the 5.000 kg limit is exceeded. The licensee requested to store an additional 0.080 kg of plutonium as a plutonium-beryllium sealed source in the reactor building for a total of 5.114 kg of non-exempt SNM without the additional security measures.

#### OFFICE OF STANDARDS DEVELOPMENT

## IMPORTANT EVENTS FOR THE WEEK ENDING DECEMBER 1, 1978

- 1. On November 22, 1978, representatives of NRC, EPA and HEW met to continue the development of the Scope of Work for the Feasibility/Planning Study on epidemiologic studies of low-level radiation effects. There was general agreement on the substance of the work scope, however, problems still remain with respect to the level of detail necessary, the time necessary to perform the tasks, and the most efficient and effective manner in which to have the work performed.
- 2. During this week the copies of the NRC/EPA Memorandum of Understanding on the Feasibility/Planning Study were transmitted to EPA for signature. Agreement with the MOU was obtained from the HEW General Counsel at a meeting on November 27.

[On November 30, 1978, Mr. Peter Libassi, General Counsel, HEW, notified Mr. Minogue by telephone that he (Libassi) is sending forward HEW's written agreement with the proposed NRC/EPA Memorandum of Understanding on the epidemiological study confirming oral agreements reached at an NRC/EPA/HEW meeting on November 27.]

The first draft of Milestones for the study has been prepared for review by the NRC/EPA/HEW Review Group. The next Review Group meeting will discuss the milestones as well as the revised work scope and selection criteria in the format of a Request for Proposal.

- 3. The Executive Director for Operations has issued effective amendments to 10 CFR Part 35 which require medical therapy licensees to confirm the removal of radioactive implants at the end of treatment by:
  (1) a source count and (2) a radiation survey of the patient. Failure to account for all implants at the conclusion of patient treatment has resulted in some instances of unnecessary radiation exposure. The final rule was published in the Federal Register on November 28, 1978 to be effective on December 28, 1978. The rule, which essentially incorporates a license condition into the regulations, was published in the Federal Register as proposed on June 28, 1978.
- 4. On November 30, 1978, Mr. Edward Podolak, Radiological Health Standards Branch, presented a lecture "Regulatory Controls Over the Medical Use of Radioisotopes" to a radiopharmacy class at Yale University.

- 5. On November 28, 1978, members of the staff met with representatives of several labor unions to discuss the necessity for, and possible content of, a regulatory guide which would be used as an instructional aid in informing workers regarding potential risks due to occupational radiation exposure received in connection with NRC-licensed activities. A guide of this nature has been requested by the Utility Workers Union of America (UWUA). In addition to the UWUA, the following unions were represented: International Union of Operating Engineers; International Brotherhood of Electrical Workers (IBEW); Oil, Chemical and Atomic Workers International (OC W); International Association of Machinists and Aerospace Workers. A spokesman for the UWUA expressed the opinion of his union that it is necessary for the NRC to assure that workers are informed to the extent possible regarding occupational radiation risks, particularly since questions have recently been raised as to whether NRC radiation dose limits are sufficiently low. The IBEW supported the UWUA. One OCAW representative said that the NRC should be eliminating health risks, not publishing guides that make the risks sound acceptable and thereby letting "licensees get off the hook". The other OCAW representative agreed that workers should be adequately informed regarding risks, but cautioned that such information should never be substituted for regulatory protection of workers. Representatives of the other two unions offered suggestions as to the content of the proposed guide and thus appeared to support the UWUA. R. E. Alexander, Office of Standards Development, explained to the union personnel that, while work on the guide has been initiated, issuance is not scheduled until after the Commission's deliberations on dose limits are complete. The principal message from the unions to the staff was that the workers want, and deserve, a simple, readily understood answer to the question, "If I am exposed to radiation within the NRC's limits, will I get cancer?"
- 6. On November 27, Robert B. Minogue met with Peter Libassi, General Counsel, HEW, and D. Hawkins, Assistant Administrator for Air, Noise and Radiation, EPA, to discuss the final draft of the NRC/EPA Memorandum of Understanding on epidemiological research on the health effects of low-level ionizing radiation. The meeting resulted in the following agreements:
  - a. HEW agreed with the MOU.
  - b. The HEW representative on the Scientific Review Group will come from FDA (thus providing regulatory perspective).
  - c. HEW will designate a person with research cognizance to serve as a participating observer at meetings of the Scientific Review Group.

- 3 -

Subsequent to the meeting, HEW designated Dr. Charlotte Silverman, BRH, as the HEW representative (para. b. above). This selection was accepted by both EPA and NRC.

- 7. Amendment to 10 CFR Part 50.55a, Codes and Standards, was issued to clarify certain ambiguities to avoid misinterpretations of provisions which deal with requirements for inservice inspection of nuclear power plants. These clarifications should result in more expeditious reviews and processing of inservice inspection programs by the NRC.
- 8. Tom Moore, consultant to Senator Hart's Subcommittee on Nuclear Regulation, met with G. D. Calkins, \*Decommissioning Program Manager, on November 29, 1978. Mr. Moore is gathering background information on NRC's "generic" contractual methods, particularly with DOE's national laboratories. He has selected the project, "Evaluation of Provisions and Design Alternatives for Improving the Safety and Facilitation of the Decommissioning of Nuclear Facilities," FIN B2125, and more specifically the bibliography task of that project as a mechanism for learning about NRC's contracting methods. Mr. Moore was given free access to the appropriate project files and answers were supplied to all of his questions.
- 9. SD, ELD and RES staffs attended a Department of Transportation public hearing on the need for routing controls in the transportation of radioactive material. Statements were presented by 35 representatives, most from industry and environmental groups. R. Bernero, SD, explained the NRC role of assisting DOT under our Memorandum of Understanding, and briefly reviewed the results of four NRC studies pertinent to the routing examination. Public comments may be submitted to DOT until January 1, 1979, after which NRC staff will assist DOT in examining routing alternatives.
- 10. SD staff met with representatives of ENSCO, Inc. (Messrs. Kaufman, Rudd, and Smith) on November 28, 1978 to discuss ENSCO's capability in the field of transportation safety and potential NRC needs for technical assistance in that area. ENSCO described their capabilities in test, instrumentation and general engineering with unique qualifications and experience in the area of transport vehicle and roadbed safety.

The SD staff described ongoing programs at NRC in which the type of capabilities possessed by ENSCO are utilized.

\*Mr. Moore also met with CON and other staff on the same subject.

## Regulatory Guides Issued During the Week of November 27 - December 1, 1978

Reg. Guide 1.70, Rev. 3 - Standard Format and Content of Safety Analysis Reports for Nuclear Power Plants -- LWR Edition [Issued to Reflect Comments]

Reg. Guide 1.72, Rev. 2 - Spray Pond Piping Made From Fiberglass-Reinforced Thermosetting Resin [Issued to Reflect Comments]

## OFFICE OF NUCLEAR MATERIAL SAFETY AND SAFEGUARDS

## Items of Interest

## Week Ending December 1, 1978

## Mill Licensing Section Receives Colorado Assistance Request

The Colorado Department of Health has requested the assistance of the Uranium Mill Licensing Section in reviewing an application and accompanying environmental report for the Cotter Corporation's uranium ore processing facility at the Schwartzwalder mine near Golden, Colorado. The assistance will be provided to Colorado in conformance with the Commission's offer of technical assistance related to uranium mills in Agreement States published in the Federal Register on April 26, 1978. This is the fourth Colorado project under active review by the Mill Licensing Section.

## DES Published for the Western Nuclear, Split Rock, Wyoming, Uranium Mill

The Draft Environmental Statement (NUREG-0451) related to operation of Western Nuclear Corporation's Split Rock, Wyoming, uranium mill was published by the Uranium Mill Licensing Section. Comments are due by January 22, 1979. The Split Rock mill has been in operation for about 20 years. This DES, a full NEPA EIS, was prepared in support of Western Nuclear's application for a renewal of their source material license. The DES concludes that the license should be renewed, and the statement recommends various mitigating actions for continued operation at this site.

## Gamma Survey of Edgemont, South Dakota, Inactive Mill Site

At the request of the Uranium Mill Licensing Section, the EPA (Office of Radiation Programs, Las Vegas) conducted a gamma survey of Edgemont, South Dakota, November 6-8, 1978. A mobile scanning unit was used to identify uranium mill tailings which had been transported off the inactive site (by human or wind activity). Preliminary results indicate fifteen areas where tailings may have been used as fill or structure material.

The survey was performed in support of an environmental review related to the decommissioning of the former mill site. owned by TVA. The survey team consisted of apresentatives of EPA, NRC, TVA, South Dakota, and local officials. The EPA report will be issued by January 1, 1979.

## Uranium Mill Radiological Impact Assessment Capability

The Uranium Mill Licensing Section has generated a modified version of Argonne National Laboratory's UDAD4 code. The new code, called UDAD4-MOD1, provides NMSS the capability of performing uranium mill radiological impact assessments in-house.

It incorporates extensive staff-generated modifications, including subroutines for detailed evaluations of compliance with EPA's 40 CFR 190 regulation.

## Radon Releases from Uranium Mining

In connection with the development of a revised estimate of radon releases from uranium mining, a complete listing of U.S. uranium mines was obtained from the Mine Safety and Health Administration, U.S. Department of Labor, which has regulatory authority over uranium mines. The list shows the following numbers of uranium mines, by states: Alaska-4; Arizona-2; California-2; Colorado-114; New Mexico-49; Utah-94; and Wyoming-31.

## Waste Management Licensing Study

The Task Force has prepared letters to 20 Federal agencies in an effort to develop an inventory of all existing and planned Federal waste storage and disposal activities not currently licensed by NRC, or for which the material stored is not transferred to DOE or an NRC licensee. Data is also needed on activities in which nuclear materials are disposed of without an NRC license.

## Screening of Alternative Methods for the Disposal of Low-Level Radioactive Wastes

The "Screening of Alternative Methods for the Disposal of Low-Level Radioactive Wastes," NUREG/CR-0308 has been published. This report includes the results of the identification of alternative methods to shallow land burial and the screening analysis used to select the alternatives to undergo further detailed study.

## Comprehensive Evaluation of Safequards at the GE Facility, Vallecitys, California

The Material Control and Accounting Field Team will be assessing safeguards at the GE Facility, Vallecitos, California, from November 27 through December 1, 1978.

## Comprehensive Evaluation of Safeguards at the B&W Facility, Lynchburg, Virginia

The Diversion Path Field Team will be conducting a survey at the B&W Lynchburg Facility from November 27 through December 1, 1978. This will complete all field work for the comprehensive evaluation of safeguards at the B&W Lynchburg Facility.

## Tracking of Foreign Origin Nuclear Materials

On November 20, 1978, GAO issued final approval of reporting forms and procedures for tracking foreign origin nuclear material in the U.S. Members of the NRC safeguards staff attended discussions at DOE on November 21, 1978, dealing with DOE procedures for this reporting as it pertains to toll enrichment contract operations at Oak Ridge. The DOE guidance instructions were transmitted to all DOE operations offices on November 22, 1978.

## Visit to Nuclear Fuel Services, Erwin, Tennessee

A safeguards licensing representative visited Nuclear Fuel Services, Inc., at Erwin, Tennessee, to participate in a technical assistance project concerning the use of production, process and quality control data for purposes of loss identification and localization.

## INFCE Safeguards Crosscut Group

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#### OFFICE OF INSPECTION AND ENFORCEMENT

#### Items of Interest

#### Week Ending December 1, 1978

- 1. Radioassay Systems, Inc., Southfield, Michigan On July 13, 1978, an Order to Show Cause and Order Suspending Licenses was issued to the subject licensee. This action was based on the findings of an investigation which disclosed that byproduct material had been used without an authorized user and products containing byproduct material had been distributed without authorization. (EN-78-13) In his answer to the order, the licensee requested a hearing. Following negotiations between staff counsel and counsel for the licensee, the licensee requested that the licenses be terminated. On November 16, 1978, the Office of Nuclear Materials Safety and Safeguards terminated the licenses. Accordingly, the proceeding involving the licensee was terminated on November 30, 1978.
- 2. Preliminary Notifications relating to the following actions were dispatched during the past week:
  - a. PNO-78-190C Privately Owned Landfill, Norton, Massachusetts Radioactive Material in the Private Sector NRC inspectors conducting radiological surveys of 14 dump sites in the Norton-Attleboro, MA area, have identified eight small (less than four square feet each) localized contaminated areas in a public park in Attleboro, MA. The total depth and below surface breadth of the contamination is unknown at this time. The survey of the approximately five-acre park is 50% completed. Surveys of nine dump sites have been completed and have been found free of detectable radioactive contamination. The remaining surveys of dump sites are scheduled to be completed by December 1.
  - b. PNO-78-195 Indian Point Unit 2 Unscheduled Shutdown to Repair Leak on Seal Injection Line to Reactor Coolant Pump A small leak developed in a socket weld on a drain line from the seal injection headers to the reactor coolant pump. Corrective maintenance to effect repairs includes draining the reactor coolant water to a level below the pump seals. The leak did not result in any radioactivity release to the environment. (Closed)
  - c. PNO-78-196 Clinton Unit 1 Gas Explosion and Fire Killing One Worker - A propane gas explosion and fire killed one craftsman and injured another. While a welder was on a coffee break, propane leaked from his torch. When he reignited the torch, the explosion occurred. Construction of the plant is about 35% complete. No radioactive material was involved. OSHA has been notified. (Closed)

- d. PNO-78-197 Palisades Control Rod Drive Seal Leakage The plant was shut down on November 28, 1978 to correct excessive control rod drive mechanism (CRDM) seal leakage. This is the ninth forced outage to correct excessive CRDM seal leakage since the last refueling outage, January 6, 1978 April 20, 1978. During that refueling outage, preventive maintenance was performed on all 45 CRDMs, including replacement of the seals. The licensee is investigating the cause of the leakage and believes it to be a metallugical problem associated with the seal material. (Closed)
- e. PNS-78-57 Comanche Peak Units 1 & 2 Explosion at Reactor Construction Site The licensee initially reported an explosion caused by an explosive divice had occurred causing destruction of a file cabinet but no structural damage. Subsequently, it was determined that the explosion was caused by a leaking butane cylinder. (Closed)
- f. PNS-78-58 Waterford Unit 3 Bomb Threat No bombs were found and norm exploded. (CLosed)
- g. PNS-78-59 Westinghouse, Cheswick, PA and Tri-State Motor Truck Lines Shot Fired at TMT Truck Carrying Strategic SNM On November 28, 1978, an escorted Tri-State Motor Truck Lines (TMT) armored tractor towing a trailer containing four mixed oxide (U02Pu02) fuel assemblies was fired upon. The incident occurred five miles west of Washington, PA near the West Virginia border. There were no injuries and minimal damage to the vehicle. The shipment continued to New Orleans where it was loaded aboard ship (locked and sealed) on November 30, 1978. Media interest is expected because of the steel haulers strike. (Closed)
- 3. Status of Previously Reported Items of Interest:
  - a. PNS-78-54 Oconee Units 1, 2 and 3 Media Interest in Allegations The investigation by Region II (Atlanta) into allegations by security guards that they had received inadequate training is continuing and is expected to last through the middle of December. (Closed)

#### OFFICE OF NUCLEAR REGULATORY RESEARCH

Important Items - Week Ending December 1, 1978

## Power Burst Facility

A programmatic test (RIA 1-2) was performed in the Power Burst Facility on November 22, 1978 to further define the threshold failure energy of fuel rods which were subjected to a rapid energy pulse equivalent to a control rod drcp or ejection accident. In the previous test (reported on October 13th) an energy pulse of -245 cal/gm within the fuel produced unexpectedly severe damage to both the irradiated and unirradiated fuel rods together with evidence of considerable fuel expansion (swelling) in the irradiated rods. The current test was conducted with 4 rods irradiated to 5000 MW days/Tonne at an energy pulse (180 cal/gm).

There was no significant change in the internal fuel rod gas pressure or in the loop fission product activity after the test. This is a rough indication that the four test rods generally retained their integrity, even though it was anticipated that the energy pulse might damage the cladding of one or more of the test rods.

The results of this test will be useful in defining the energy deposition thresholds for damage of pre-irradiated fuel rods and assessing the extent of fuel rod damage in the event of a postulated control rod ejection accident in a light water reactor.

## Loss-of-Fluid-Testing

Final preparations continue for the first L2-2 nuclear loss-of-coolant experiment. This experiment is now scheduled for December 8.

In accordance with a Congressional requirement, the GAO is performing an audit of NRC research projects, with the results to be reported by the spring of 1979.

Although the GAO was advised that the period of the L2-2 test was an inopportune time to perform this audit at INEL, and that all LOFT personnel may be incommunicado during this period, two teams of GAO auditors have arrived at INEL to begin the audit. NRC has advised INEL that the safe and successful conduct of the L2-2 experiment is not to be compromised by this audit.

# OFFICE OF INTERNATIONAL PROGRAMS WEEK ENDING DECEMBER 1, 1978

#### INTERNATIONAL COOPERATION

## Foreign Visits

Byoung Do Kim, Director of the Second Nuclear Reactor Division of the Atomic Energy Bureau in the Ministry of Science and Technology of South Korea met with R. Baer and W. Haas of DPM, W. Morrison of SD, M. Peranich of IE and W. LaVine and D. Chenier of IP November 27-28 to discuss reactor licensing and regulation practices.

Mr. Sosho Sato, Director of the Environmental Policy Division of the Japanese Ministry of International Trade and Industry and two U.S. MITI representatives. Messrs. One and Okazawa met with V. Moore and B. Harless of DSE November 29 to discuss the development of Environmental Impact Statements and the application of the National Environmental Policy Act.

L. Andermo of the Swedish Nuclear Power Inspectorate and two Swedish consultants, Dr. B. Kjellstrom and Mr. Berquist met with Z. Rosztoczy and R. Meyer of DSS and M. Picklesimer of RSR on November 30 to discuss various fuel and ECCS-related questions.

Richard Vollmer, Assistant Director for Site Analysis, will be in Athens, Greece from December 2 to approximately December 20 for an IAEA Technical Assistance Assignment to the Greek Atomic Energy Commission. Mr. Vollmer will be advising the GAEC on regulatory siting matters and safety guides.

## IAEA Nuclear Safety and Environmental Protection

Representatives from IP and NMSS met with DOE, EPA, and State Department representatives on November 28 to begin to lay plans for US representation at a February meeting in Vienna which will advise the IAEA on its program of nuclear safety and environmental protection activities. A second US interagency meeting will be held in early January. At that time draft position papers will be discussed and finalized.

## Foreign Reports

The following reports were received by IP during the week of November 27 and December 1. (For further information, contact Ann McLaughlin, IP Extension 27788.) Reports followed by an asterisk\* indicate reports available in English.

## From France:

- 1. DSN #236 The Safety of French Plants Regarding Storage of Irradiated Fuel Elements in LWRs.
- DSN #172 Local Behavior of Reinforced Concrete Walls Under Missile Impact.\*
- 3. DSN #234 Use of MARKOV Process for Reliability Problems.\*
- 4. DSN #235 PATREC, A Computer Code for Fault Tree Calculations.\*

## From Federal Republic of Germany:

- Translations of Safety Codes and Guides: Edition 14/78. Guideline for the Protection Against Radiation of Personnel During the Execution of Maintenance Work in Nuclear Power Stations with LWRs.\*
- Comparability of National Radiation Exposure with Radiation Exposure Due to Nuclear Facilities. Comments of the Radiological Protection Commission.\*
- Fundamental Reliability of the Waste Treatment and Storage Center from the Safety Engineering Aspect.\*
- 4. Synergism and Radiological Protection.\*

## From the IAEA and OECD:

- IAEA Proceedings of the Specialists' Meeting on the Design on Electromagnetic Compatibility, UK 3/2/78.\*
- 2. OECD 2nd Meeting of a Task force on Problems of Rare Events in the Reliability Analysis of Nuclear Power Plants, 6/20/78.\*

(Both are available from the NRC .. ibrary)

## From Japan:

- 1. 78-PR-01 Japan Atomic Power Co. Inc. Starts Test Operations at Tokai Dai-ni Nuclear Power Station on March 13, 1978.
- 2. 78-PR-02 Tokyo Electric Power Co. Inc. Starts Commercial Operation at Fukushima Dai-ichi Nuclear Power Station Unit 5, which is Given Operating License by MITI (Ministry of International Trade and Industry) on April 18, 1978.
- 3. 78-PR-03 Permission for the Establishment of No. 2 Reactor at Fukushima Dai-ni Nuclear Power Station of the Tokyo Electric Power Co. Inc. (June 26, 1978)

- 4. 78-PR-04 Governmental View of Fuel Failure of No. 1 Reactor at Mihama Nuclear Power Station of Kansai Electric Power Co. Inc. (July 18, 1978)
- 5. 78-PR-05 Permission for the Establishment of KUHFR (Kyoto Univ. High-Flux Reactor) at Kyoto Univ. Research Reactor Institute. (October 2, 1978)
- 6. 78-PR-06 Kansai Electric Power Co. Inc. Starts Test Operation at Ohi Nuclear Power Station, Unit 2 on October 11, 1978.
- 7. 78-PR-07 Tokyo Electric Power Co. Inc. Starts Commercial Operation at Fukushima Dai-ichi Nuclear Power Station Unit 4, which is Given Operating License by MITI (Ministry of International Trade and Industry) on October 12, 1978.
- 8. 78-RG-01 Examination Guidelines for the Safety Evaluation of Light Water Power Reactors
- 9. 78-RG-02 Examination Guidelines for Antiseismic Design of Nuclear Power Plants
- 10. 78-RG-03 Guideline for Measurement of Radioactive Materials Released from Light Water Power Reactors

## From the Netherlands:

 Safety-Related Occurrences in Nuclear Power Installations in the Netherlands During 1978.\*

## From Sweden:

1. Energy Research and Development in Sweden 1978-81.\*

## From Switzerland:

- Project Planning Rules of the Swiss Commission for the Safety of Atomic Installations for LWRs.
- Definitions for LWRs of the Swiss Commission for the Safety of Atomic Installations.
- 3. Project Planning Rules of KSA for Nuclear Power Plants with LWRs.\*
- 4. ASK Guideline on the Information to be Contained in a Component Design Specification of Mechanical Equipment in Nuclear Power Plants.
- 5. ASK Guideline for Radiation Zones in Nuclear Power Plants (Switzerland).
- 6. KSA-ASK Guidelines for the Protection of People Against Radiation in the Area of Nuclear Power Plants (Switzerland).\*

- 7. ASK Position on the Need for a Containment Spray System for the 970 MWe KWU-PWR at Gosgen.\*
- 8. Summary of Findings on Friuli Earthquake by ASK Expert.
- 9. ASK Guidelines on Reference of Incidents and Accidents in Nuclear Power Plants.

## From the U.K.:

- 1. Personal Radiation Dose Statistics for 1977.
- 2. HSE Report on Safety Assessment Principles for Nuclear Power Reactors and Associated Plant #3.

## EXPORT/IMPORT AND INTERNATIONAL PROGRAMS

## Component General Export License

IP has forwarded to the Executive Branch for review a final draft version of the proposed general export license for nuclear facility components. After receipt of Executive Branch concurrence, the proposed general license will be forwarded to the Commission for approval and then published in the Federal Register pursuant to standard rulemaking procedures.

#### OFFICE OF STATE PROGRAMS

#### ITEMS OF INTEREST

#### WEEK ENDING DECEMBER 1, 1978

## State Agreements Program

The Washington and New Hampshire radiation control programs will be reviewed during the week of December 4, 1978.

State Agreements staff will meet with New Jersey officials on December 11, 1978 to discuss agreement negotiations.

Notice of Non-Routine Event No. 78-14B was issued on November 27, 1978. This concerns the imposition of a civil penalty on a Louisiana licensee as a result of overexposures which occurred during the summer of 1978.

Notice of Non-Routine Event No. 78-26 was issued on November 27, 1978. This concerns an incident involving possible overexposures to employees of a Louisiana licensed radiography firm. The incident occurred at an off-shore platform in the Gulf of Mexico.

A course on Medical Use of Radionuclides will be given at Baylor University School of Medicine the week of December 11, 1978. There will be joint participation by State regulatory personnel and inspectors from the Office of Inspection and Enforcement.

## Program Development

On November 29, Frank Young attended a hearing of the Missouri Clean Water Commission.

On November 30 and December 1, he met with Nebraska State officials to discuss a Memorandum of Understanding regarding Water Quality.

On November 30 and December 1, Region II (Atlanta) hosts a meeting of the State Liaison Officers within their Region.

#### OFFICE OF MANAGEMENT AND PROGRAM ANALYSIS

Items of Interest Week Ending December 1, 1978

## IP Export Licensing Tracking System (IPELTS)

Completed documentation of enhancements to IPELTS. This will provide additional reporting capability due to increased licensing responsibilities (outlined in the Nuclear Nonproliferation Act) and the development of the International Nuclear Materials Tracking System. Distribution of modifications will be transmitted this week to IP, NMSS and DOE.

## Briefing on Decision Unit Tracking System

Briefed Chairman Hendrie, Commissioners Ahearne and Bradford, and OIA staff on decision unit tracking. The briefing summarized NRC's current and proposed systems for exerting additional management control over performance and resources. Plans call for briefing the Commission in April, August and December to provide review of resources devoted to agency objectives.

## MPA Product Evaluation

Completed studies on four MPA products (Yellow and Blue books, Current Events Reports, and Closeout Bulletin). Additional products expected to be evaluated by March include the RIL, Buff and Gray Books, Licensee Event, 10 CFR Part 21 and Abnormal Occurrence Reports, and Fire Protection Action Plans. Results of completed studies now under review in MPA.

## Abnormal Occurrence Reporting

Forwarded to EDO a Commission Information Paper on the guidelines developed for selecting "Appendix C" (Other Items of Interest) events for the quarterly Abnormal Occurrence Reports to Congress. In addition, the 3rd Quarter CY 78 Abnormal Occurrence Report to Congress was sent to the Commission for approval.

## Testimony Concerning Three Mile Island

Prepared testimony on probability of heavy plane crashes into Three Mile Island Unit 2 for ALAB hearing scheduled December 11-13, 1978.

# CALENDAR OF SIGNIFICANT EVENTS TWO-WEEK PERIOD ENDING DECEMBER 18, 1978

December 4	Zimmer 1	Issue Safety Evaluation Report.
December 4	Diablo Canyon 1 & 2	Hearings scheduled to be resumed in San Luis Obispo, Calif. and estimated to last at least three weeks.
December 4	San Onofre	Structural audit will be conducted during week of Dec. 4.
December 5	Black Fox	Hearing recommences in Tulsa, Okla.
December 5	Susquehanna 1 & 2	Site visit to discuss site meteorology, foundation engineering, accident analysis and emergency plans.
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December 11	TMI-2 ·	Hearing on Aircraft crash contention.
December 11	Erie	SER supplement to be published during week of Dec. 11.
December 11	Palo Verde 4 & 5	Appeal meeting regarding staff position on use of load sequences with offsite power.
December 12	La Salle 1 & 2	Meeting with applicant to discuss containment area problems
December 13	NYSEG 1 & 2	Public meeting to discuss New Haven review.
December 14	Midland	Prehearing conference.
December 15	Pilgrim 2	SER Supplement discussing primarily financial matters to be issued.
December 15	North Anna 1	Amendment to operating license regarding pump house settlement to be issued.
December 15	Salem 2	Meeting with applicant to discuss open items.
		ENCLOSURE L