

FEB 25 1986

In Reply Refer To:
Docket: 50-267

Public Service Company of Colorado
ATTN: O. R. Lee, Vice President
Electric Production
P. O. Box 840
Denver, Colorado 80201-0840

Gentlemen:

Enclosed is a copy of the Federal Emergency Management Agency report of the exercise of offsite radiological emergency preparedness plans for the Fort St. Vrain Nuclear Generating Station during the full participation exercise conducted June 18, 1985. No deficiencies in offsite preparedness were observed; however, several areas needing improvement were identified.

Please review the report and be prepared to cooperate with state and local officials as necessary during their efforts to address the improvement items.

Sincerely,

Original signed by:

J. E. Gagliardo, Chief
Reactor Projects Branch

Enclosure:
As stated

cc:
Floyd Shoemaker, RAC Chairman
FEMA Region VIII
Denver Federal Center, Bldg. 710
P. O. Box 25267
Denver, Colorado 80225-0267

J. W. Gahm, Manager, Nuclear
Production Division
Fort St. Vrain Nuclear Station
16805 WCR 19 1/2
Platteville, Colorado 80651

L. Singleton, Manager, Quality
Assurance Division
(same address)

Colorado Radiation Control Program Director

bcc: (see next page)

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PDR ADDOCK 05000267
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RIV:EP&SPS
JBBay/jt
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JPJaudon
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C:RPB
JEGagliardo
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bcc to DMB (A045)

bcc distrib. by RIV:

RPB

Resident Inspector

Section Chief (RPB/A)

Section Chief (RSB/ES)

R&SPB

MIS System

RSTS Operator

RIV File

RSP

R. D. Martin, RA

RSB

J. B. Baird

L. A. Yandell

R. L. Bangart



Federal Emergency Management Agency

Washington, D.C. 20472

JAN 14 1986

MEMORANDUM FOR: Edward L. Jordan, Director
Division of Emergency Preparedness
and Engineering Response
Office of Inspection and Enforcement
U.S. Nuclear Regulatory Commission

FROM: *Richard W. Krimm*
Richard W. Krimm
Assistant Associate Director
Office of Natural and Technological
Hazards Programs

SUBJECT: Exercise Report for the June 18, 1985, Exercise of
the Offsite Radiological Emergency Preparedness (REP)
Plans for the Fort St. Vrain Nuclear Station

Attached is one copy of the Exercise Report for the June 18, 1985, full participation joint exercise of the offsite REP plans for the Fort St. Vrain Nuclear Station located approximately 37 miles north of Denver in Weld County, Colorado. The State of Colorado and Weld County, located in the 5-mile plume emergency planning zone, fully participated in the exercise.

The exercise report was prepared by Region VIII of the Federal Emergency Management Agency (FEMA). During the exercise there were no deficiencies observed in the actions that were taken under the plans. Several areas needing improvement were identified during the exercise, however, these did not detract from the overall capability demonstrated by the State of Colorado and Weld County to protect the health and safety of the public in the event of a radiological emergency.

Based on the results of the June 18, 1985, exercise, FEMA considers that offsite radiological emergency preparedness is adequate to provide reasonable assurance that appropriate measures can be taken offsite to protect the health and safety of the public living in the vicinity of the site in the event of a radiological emergency. Therefore, the original 44 CFR 350 approval dated January 29, 1982, for the Fort St. Vrain Nuclear Station will remain in effect including the caveat on the adequacy of the alert and notification system.

FEMA Region VIII staff will furnish a copy of this exercise report to the State of Colorado and request that appropriate actions be taken in regard to the areas recommended for improvement.

If you have any questions, please contact Mr. Robert S. Wilkerson, Chief, Technological Hazards Division, at 646-2860.

Attachment
As Stated

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1p.

FORT ST. VRAIN NUCLEAR GENERATING STATION
PUBLIC SERVICE COMPANY OF COLORADO

PLATTEVILLE, WELD COUNTY, COLORADO

EXERCISE REPORT: AUGUST 26, 1985
EXERCISE: JUNE 18, 1985

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24 pp.

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EXERCISE SUMMARY

On June 18, 1985, the Public Service Company of Colorado, and State and local governments conducted a full-scale Exercise of the Fort St. Vrain Nuclear Power Generating Station and the Colorado Radiological Emergency Response Plan.

The Exercise was initiated by a simulated on-site earthquake which lead the Public Service Company of Colorado, the licensee, to declare an "Alert," and to make the necessary notifications of State and local governments and the Nuclear Regulatory Commission. This caused the activation of the Colorado Radiological Emergency Response Plan, which included the activation of the State Emergency Operations Center, at Camp George West, and the Forward Command Post, at Fort Lupton.

Aftershocks caused considerable damage at the Plant, including a primary coolant leak and the loss of commercial power throughout the area. As a result, a PSCO employee at Fort St. Vrain suffered a compound fracture of his leg and some radioactive contamination.

The off-site portion of this Exercise evaluated major functional elements of the RERP. The following off-site functions were exercised and evaluated:

- (1) Notification procedures and public warning dissemination systems, including activation of the NOAA weather radio network, and transmission of exercise warning messages to the Emergency Broadcast System;
- (2) Deployment of response elements and their direction and control, including activation of the Forward Command Post and establishment of a secure area and traffic access control;
- (3) Radiological monitoring, assessment, and reporting by field-deployed State Health Department monitoring teams, through the FCP to the State Emergency Operations Center.
- (4) Operational communications and associated direction and control procedures at all levels;
- (5) Food and agriculture control procedures; and
- (6) Dissemination of official information to the news media and to the general public.

Local State and Federal agencies involved in the Exercise included the Colorado Division of Disaster Emergency Services, the Weld County Sheriff's Department, the Weld County Communications Center and Director of Emergency Services, the Weld County Commissioners, the Colorado State Patrol, the Colorado National Guard, the Department of Highways, the Governor's Office, the Attorney General's Office, the State Health Department, the Department of Social Services, the Department of Agriculture, the Public Utilities Commission, the Salvation Army, the Red Cross, the Public Service Company of Colorado, FEMA Region VIII, the National Weather Service and the Nuclear Regulatory Commission.

ISSUE: Whether the State of Colorado and Weld County took appropriate actions, under the Fort St. Vrain Radiological Emergency Response Plan, to protect the health and safety of the population of the Emergency Planning Zone, and contiguous areas, from the off-site release of radioactive gas during a general emergency at the nuclear power plant on June 18, 1985.

SUMMARY: The Colorado Division of Disaster Emergency Services, the State Department of Health, and other State and County agencies took appropriate actions, under the Fort St. Vrain Radiological Emergency Response Plan, to safeguard the health and safety of the citizens during the general emergency on June 18, 1985.

BACKGROUND: The Fort St. Vrain Radiological Emergency Response Plan (RERP) was approved by regulatory agencies in 1980, approximately one year after this Nation's first, and, to date, only high temperature, helium-cooled reactor was built 3 1/2 miles northwest of Platteville, Colorado and 37 miles north of Denver, the State capitol (See Attachment No. 1). The RERP has been exercised every year since it was approved; this was the fifth Exercise of the Plan. The RERP has been reviewed and up-dated each year since it was first developed in 1979.

SCENARIO OF THE EXERCISE

Though POSAVEX 85 was originally planned as an "After Hours" exercise, because of the severe budgetary impacts on State and local government agencies, caused by an Exercise which would necessitate over-time for players and support staff, the decision was made that the off-site portion of the Exercise would be conducted between 8:00 a.m. and 5:00 p.m. The decision was also made to use predetermined and scripted meteorological conditions, rather than the real meteorological conditions originally proposed, because, as Westinghouse Idaho Nuclear Company commented, in a review of the scenario:

"The use of real meteorological conditions presents almost impossible problems for the field monitoring team controllers."

The initiating event for this Exercise was an earthquake which caused Public Service Company of Colorado to declare an "alert" emergency and to notify Weld County officials and the Colorado Division of Disaster Emergency Services. The State Emergency Operations Center (EOC) and the Forward Command Post (FCP) were activated and staffed as specified in the Radiological Emergency Response Plan.

Some 45 minutes after the earthquake, severe aftershocks caused considerable damage at the Fort St. Vrain Nuclear Generating Plant, including the loss of commercial power which affected off-site exercise play in Platteville and Fort Lupton. One hour and 15 minutes after the earthquake, a primary coolant leak was discovered at the plant causing the utility to upgrade to a "site" emergency.

At one hour and 30 minutes after the earthquake, a utility employee suffered a compound fracture of his leg and received radioactive contamination. At two hours and 15 minutes, dose assessments indicated a more severe problem at the plant and the utility upgraded to a "general emergency."

Three hours and 15 minutes after the Exercise began, on-site dose assessments showed a decrease and the utility downgraded to a "site" emergency, but off-site field monitoring continued.

Finally, at four hours and 15 minutes after the Exercise began, the utility downgraded to an "alert" emergency.

During the Exercise itself, scenario compression caused the utility to move directly from an "alert" to a "general emergency," bypassing a "site" emergency. This condensed play and made the Exercise move very rapidly.

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At one hour and 30 minutes after the earthquake, a utility employee suffered a compound fracture of his leg and received radioactive contamination. At two hours and 15 minutes, dose assessments indicated a more severe problem at the plant and the utility upgraded to a "general emergency."

Three hours and 15 minutes after the Exercise began, on-site dose assessments showed a decrease and the utility downgraded to a "site" emergency, but off-site field monitoring continued.

Finally, at four hours and 15 minutes after the Exercise began, the utility downgraded to an "alert" emergency.

During the Exercise itself, scenario compression caused the utility to move directly from an "alert" to a "general emergency," bypassing a "site" emergency. This condensed play and made the Exercise move very rapidly.

OBJECTIVES OF EXERCISE

The objectives of the Fort St. Vrain (FOSAVEX-85) Exercise, which was jointly developed by the Colorado Division of Disaster Emergency Services and the Public Service Company of Colorado, the licensee, included:

- (1) to exercise and evaluate alert and notification procedures and public warning systems, including activation of the NOAA weather radio network and the Emergency Broadcast System;
- (2) to exercise and test deployment of response elements and their direction and control, including activation of the Forward Command Post (FCP) and traffic control;
- (3) to exercise and evaluate radiological monitoring, assessment and reporting procedures of field-deployed State Health Department monitoring teams, through the FCP to the State Emergency Operations Center (EOC);
- (4) to exercise and evaluate operational communications and direction and control procedures;
- (5) to exercise and test food and agricultural control procedures; and
- (6) to exercise and evaluate the dissemination of information to the news media and to the general public.

CONCLUSIONS: The requirements of NUREG-0654-FEMA-REP-1, Rule 44 CFR 350, and the Memorandum of Understanding between the Federal Emergency Management Agency and the Nuclear Regulatory Commission, dated April 9, 1985, limit the scope of FEMA's evaluation of fixed nuclear facility exercises to the single question of the adequacy of actions under the plan to protect the health of the population living within the Emergency Planning Zone surrounding a nuclear generating plant.

In FOSAVEX-85, the 15 members of the Regional Assistance Committee (RAC) evaluated the Fort St. Vrain Exercise to determine if State and County agencies took appropriate action to protect the health of those living near the nuclear facility (See Attachment No. 2 for a list of members of the committee).

The judgment of the members of the committee was that the health and safety of the population within the EPZ was protected in the Exercise, and would have been protected under the conditions stated in the scenario of FOSAVEX-35. No deficiencies were noted in the actions that were taken under the plans. The objectives of the Exercise were achieved. However, areas needing improvement were identified.

ASSESSMENTS: The Regional Assistance Committee used a modular assessment and evaluation instrument developed for FEMA by the Argonne National Laboratory. Modules which were assessed in the Exercise included:

- (1) The State Emergency Operations Center at Camp George West
- (2) The Forward Command Post at Ft. Lupton
- (3) The Media Center and Rumor Control
- (4) Evacuation and Relocation Center
- (5) Field Monitoring and Dose Assessment
- (6) Medical Support
- (7) Decontamination Procedures
- (8) Alert and Notification

Members of the RAC met for briefings before the Exercise, the field monitoring team drove the EPZ, and the RAC spent nearly seven hours in debriefings. A joint critique of the Exercise, involving the NRC, State and County agencies, FEMA, the RAC, and Public Service Company of Colorado, was held on June 21, 1985 at Camp George West. This debriefing, of all the agencies involved in the Exercise, took about two and a half hours to complete.

EMERGENCY OPERATIONS CENTER (EOC)

The State EOC, which is located in the basement of the Colorado National Guard Armory at Camp George West, was activated immediately upon receipt of the 10:05 a.m. message that an "alert" had been declared at Fort St. Vrain following an earthquake in the area. The fanout alerting other State agencies, contiguous counties, and adjacent States was completed in less than 20 minutes. By 11:11 a.m. the State EOC was fully staffed and operational. Agencies represented in the EOC included DODES, the Governor's office, the Attorney General's office, the State Health Department, Public Service Company, the National Guard, the Department of Highways, the State Patrol, the Red Cross, the Department of Social Services, the Department of Agriculture, the Public Utilities Commission, and FEMA Region VIII. Although there was no demonstration of activation and staffing during non-working hours, or on a 24-hour basis, the call-up lists in the RERP include after-hours telephone numbers of all State and local agencies.

The use of pre-scripted exercise messages, which questioned players on the role of their agencies, or asked them to respond to specific problems, was an excellent way to actively involve all players in the Exercise.

However, access control in the EOC presented a problem because access rosters were two years out of date. Much time was spent identifying and escorting players into the EOC.

Also, it was difficult for players to track the plume or changes in the direction of flow since this was not plotted where all could see. The Department of Health and the Public Service Company need to give more frequent briefings on field conditions and dose assessments. Also, it may be advisable to announce news briefings to EOC players, since this is one way to "get the big picture" on the event.

Time compression in the scenario forced Public Service Company to move from an "alert" to a "general emergency" without declaring a "site emergency." This artificially condensed the play and made the Exercise move rapidly.

FORWARD COMMAND POST

Sheriff's deputies arrived at the Forward Command Post (FCP) at 10:15 a.m. to establish security. By 10:30 a.m. Oscar Lee, Vice President of Public Service Company of Colorado, and his staff arrived at the FCP. The first briefing of FCP staff was at 10:37 a.m., on the situation at Fort St. Vrain and weather conditions. Because of the earthquake, the power was off in the FCP. The PSCO staff had battery lights, but no portable generator was available to run the computer and the display monitor.

There was excellent communication between the FCP and the EOC, using radio and landlines; however, the FCP needs additional telephones. Security at the main door of the FCP was also excellent, but unfortunately unauthorized persons were able to enter the area from the front business office where people were paying their utility bills and business was being conducted as usual. Also, the access control roster was two years out of date so some of the FCP staff were barred by Sheriff's deputies until they could be personally identified and escorted into the area.

DODES personnel arrived at the FCP about 11:00 a.m. and the message went out that the FCP was operational. At 11.16 a.m. a

message was sent to the Sheriff's department requesting that the perimeter of the nuclear plant be secured. No feedback was received to indicate whether or not this request was implemented. At 11:36 a.m. the DODES communication van arrived at the FCP with a portable generator. The van received radio messages from the EOC and then a runner took the messages into the FCP, which caused a time lag in receipt of urgent messages.

The FCP was not well organized for efficient operation and there was no organizational chart on the wall to indicate to players where they should be stationed, so initially there was some confusion in the area.

FIELD MONITORING

Field monitoring teams were mobilized from the Department of Health Building in Denver and they arrived at the FCP in Fort Lupton at 11:39 a.m. where they were briefed on the situation. Team members were not carrying emergency response equipment kits, but rather survey instruments and other equipment were loaded into one van for transport to the FCP. This procedure presents two major problems: (1) if the van transporting equipment is involved in an accident or disabled in transit, then the field monitoring teams have no equipment when they arrive at the FCP; and (2) time was lost while equipment was distributed at the FCP, and not all the appropriate equipment was distributed to the individuals.

The field team predeployment briefing focused upon proper radio communication procedures rather than on information on plant status, current meteorological conditions, exposure control, or other routine check out procedures.

Team members demonstrated skills, procedures, and equipment operations that were commensurate with the scope of the Exercise

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Team members demonstrated skills, procedures, and equipment operations that were commensurate with the scope of the Exercise

scenario. However, the scenario did not really challenge the decision making skills of the field monitoring team.

Team members were knowledgeable of the area and had no difficulty in locating their assigned monitoring locations, and, as a consequence, the plume boundaries. Radio communications between the field monitoring teams and the field team radio communications control vehicle were excellent, but it was evident that the field team members need additional training in the areas of: (1) proper radio communication procedures in exercises (i.e., prefacing and concluding each radio transmission with the words "This is an exercise!"); (2) formal procedures for environmental sampling; and (3) air sampling and equipment operation procedures.

Because of the lack of an equipment check list or predeployment equipment issuance procedures, some equipment was not issued to the field monitoring teams, including air samplers, high range ion chamber instruments, direct reading dosimeters, environmental sampling equipment and protective clothing. Also, all but one of the observed radiation survey instruments had expired calibration dates (the one current observed calibration sticker expired the day after the Exercise). Finally, formal procedures and sample collection equipment were not available for vegetation and soil sampling.

The field monitoring team properly demonstrated instrument activation and battery checks, but they did not demonstrate operational checks with a radioactive source. All radiation survey measurements, except one, were made at waist height.

Communications from field monitoring points to FCP and the Public Service Company EOC took a great leap forward in this Exercise with the use of the "Field" controller. Field coverage problems (i.e., dead spots) were greatly reduced by the movement of the controller. Those dead spots that did occur can be corrected by a

repeater at an appropriate spot. In this exercise, the controller acted as a repeater. The communication discipline of monitoring teams was excellent, with few instances of "walking over."

Finally, "Field Monitoring Team Vehicles," and the team members themselves, need to be identified in some obvious way so that the vans and members are readily recognized as emergency vehicles and personnel.

The Weld County Sheriff's department was highly effective in establishing traffic control access, but because of limited manpower they were not able to hold those control points for very long, or for the duration of the field monitoring activity.

MEDIA CENTER

Exercise participants, involved in responding to the news media, conducted their tasks in a professional manner, and, in the event of an emergency at Fort St. Vrain, would have met the needs of the media.

The Media Center was located near the EOC, at Camp George West, with space for 50 to 60 newsmedia personnel and equipment. The Center had adequate maps, charts, and other briefing documents.

News briefings were conducted in a professional manner. Those who briefed the media included: Sue O'Brien, press secretary to Colorado Governor Richard Lamm; Pat Byrne, Director of the Division of Disaster Emergency Services; Larry Brey, Public Service Company; and Jake Jacobi, Colorado Department of Health. Their presentations were concise and they were responsive to questions of the media.

The Fort St. Vrain RERP specifies that all information to the media will be disseminated from the EOC in press briefings. However, more communication facilities are needed in the Media

Center for out-of-town media which cannot attend briefings. Facilities for the media were provided at the FCP in Fort Lupton, but the primary source of information was the EOC. Hard copy transmission to the FCP was sporadic and occasionally entire pages were omitted in process.

Full communication capabilities and backup systems were not demonstrated in the Media Center. Emergency public instructions were drafted at the Media Center and transmitted via the emergency broadcast system and the NOAA tone alert radios. No sirens or vehicles with public address systems were used in the Exercise.

A rumor control telephone number was established and publicized, but it was not exercised very extensively.

Finally, the scenario did exercise the players of the Media Center, but it did not challenge their decision making capabilities.

EVACUATION AND RELOCATION

The decision was made by the Exercise controller that a group of volunteers would be evacuated from the Platteville EPZ to a relocation center in the Fort Lupton area as part of the Exercise. The evacuees were registered into the shelter, fed by the Salvation Army, and then released; no attempt was made at shelter management or congregate care. The Red Cross was charged with responsibility of receiving the evacuees and sheltering them, as specified in the plan.

The FCP requested a survey of mobility-impaired individuals in the EPZ; however, no feedback was received on whether or not the survey was ever conducted.

MEDICAL SUPPORT

The on-site scenario specified that, as a result of the earthquake and the release of radioactive gas, a plant worker would be injured and contaminated, to evaluate the medical support provisions of the RERP.

Emergency response capabilities in the vicinity of Fort St. Vrain include a volunteer ambulance crew located at the Platteville Fire Station, about 3 1/2 miles from the nuclear reactor, and a paramedic unit with two certified attendants at Fort Lupton, as part of a county-wide service of five units total. The Fort Lupton unit has a 10 channel medical and 16 channel fire/ police radio. These two networks link in with central dispatch, which has the capability to link up with all area hospitals, as well as with major hospitals in Denver.

Because the Weld County ambulance service was extremely busy the day of the Exercise, and could not remove a unit from service, the ambulance was simulated by a PSCO van, which took the patient from the plant to the hospital.

The Fort St. Vrain Health Physicist and medical team wrapped the patient in canvas, after removing as much of the contamination as possible. The patient was then placed on a stretcher, and patient and stretcher were wrapped in plastic acetate. The hospital specified in the plan, St. Lukes in Denver, about 37 miles from the nuclear plant, has radio communication with ambulances in transit. Since a van was used in the Exercise, this capability was not tested. The van had no emergency lights or siren and it did not have a police escort.

St. Lukes Hospital is to be commended for its full involvement in the Exercise and for the training of its medical team and the quality of its equipment. When the "simulated" ambulance arrived,

it was met by the Health Physicist and a medical team dressed in full protective clothing and masks. The Hospital had secured the area with guards and placed plastic acetate in the halls, entry way, and receiving area, to minimize contamination. The area was sealed off from the rest of the Hospital. All vents were covered to prevent spread of contamination. The shower in the treatment area has a holding tank so waste water does not drain into the sewer system.

St. Lukes has its own nuclear medicine laboratory and telephone information posted to reach REAL/TS at Oak Ridge, Tennessee.

The medical team at St. Lukes waited about two hours for the patient who was transported slowly with no police escort. This caused disruption of normal patient care activities at the Hospital.

Future exercises should involve multiple injuries at Fort St. Vrain to adequately evaluate on-site decontamination and triage, transport of victims, with medical communication enroute, and back-up ambulance facilities with full medical staff. If many persons were injured at the plant, transport would present a problem given the small number of units in the area. Mutual aid agreements would need to be activated in such an instance.

ALERT AND NOTIFICATION

NOAA weather radio is the primary Alert and Notification System for persons living in the five-mile Emergency Planning Zone surrounding the Fort St. Vrain nuclear power generating plant. The Radiological Emergency Response Plan indicates that the back-up includes loudspeaker-equipped vehicles from the Sheriff's department, the Emergency Broadcast System, and a siren system in Platteville, the largest population concentration in the EPZ with

1,400 persons. The population of the entire EPZ is less than 2,100 persons.

The first EBS Alert and Notification message was broadcast at 10:26 a.m., over the two primary EBS stations, KOA (Denver), a 100,000-watt clear channel station, and KFKA (Greeley), about 15 miles north of the nuclear plant. The first activation of the tone alert was made by the National Weather Service at 10:32 a.m. This consisted of the 10 second alert warning followed by a voice message which advised that the State and Public Service Company were conducting an Exercise and that households might be contacted by telephone to determine if the message was received.

The second tone alert was broadcast at 11:35 a.m. This message advised of a small release of radioactive gas at the plant and recommended that people living to the south and southeast of the plant go indoors, close all doors and windows, and stay there until advised by radio or the local police.

The third and final alert was broadcast at 3:32 p.m. This message advised that the initial recommendation that residents stay in their homes and take precautionary measures, was cancelled. It also indicated that there had been no emergency at Fort St. Vrain and that the Alert and Notification had been an Exercise only.

No siren was sounded within the EPZ and no loudspeaker-equipped vehicles were sent to warn residents of the Exercise. The Sheriff's patrol, which is primarily tasked with traffic control around the plant, would be overtaxed if required to provide loudspeaker units for Alert and Notification. However, volunteer organizations, such as the Red Cross, could be used to knock on doors to warn residents in Platteville, the only community within the EPZ.

A telephone survey of a probability sample of households in the EPZ was undertaken by a FEMA contractor immediately following the

first NOAA radio tone alert. The purpose of this survey was to determine when residents in the EPZ received the Alert and Notification, if they had their NOAA radios on and working, and what the message said. The results of this survey will be published at a later date.

Since the Exercise, Mr. Oscar Lee, Vice President of Public Service Company of Colorado, has announced that PSCO will build a dual tone siren system in Platteville to warn residents of any emergency at Fort St. Vrain. This same system will also be used as a general warning system when any emergency, such as tornado or flood, threatens the community.

AREAS NEEDING IMPROVEMENT

The most evident areas needing improvement in this Exercise were the field monitoring activities of the Colorado Department of Health. The monitoring team did not have individual emergency response kits when they arrived at the Forward Company Post in Ft. Lupton. All monitoring and sampling equipment were transported to the FCP in a single van which might have been disabled enroute. Because of the lack of standard operating procedures on issuance of equipment, the monitoring team did not receive air samplers, high range ion chamber instruments, direct reading dosimeters, environmental sampling equipment, protective clothing, or special identification. The predeployment briefing of the monitoring team concentrated upon radio communication procedures, rather than on the more critical information on plant status, current meteorological conditions, exposure control, sample collection procedures, and equipment checks.

All but one of the radiation survey instruments had expired calibration dates. The monitoring team also needs to demonstrate sample collection procedures, as well as collection of air

sampling equipment filters and transport of samples to the laboratory for analysis.

The team needs additional training in radio communication procedures in exercises. Finally, the State needs to construct a repeater at an appropriate spot above Fort St. Vrain to improve communication between the EOC and the FCP.

Another area needing improvement is the updating of access rosters for both the FCP and the EOC. More attention needs to be given to security of the FCP to prevent unauthorized persons from entering from the front business office. The FCP needs to be reorganized for more efficient operation and an organization chart should be posted showing players their positions in the facility. The FCP needs additional telephones and a portable generator to operate the computer and display monitor should commercial power fail, as it did in this Exercise.

The Alert and Notification System that was used in this Exercise consisted of warning messages broadcast over the Emergency Broadcast System and Weatheralert Model TA-45 tone alert radios, which Public Service Company of Colorado has offered to all residences within the five-mile Emergency Planning Zone.

Additional redundancy needs to be built into this system to compensate for those persons who report that they are not operating their tone alert radios in a manner that permits them to be activated and for the transient population who may never receive the radios. PSCO's recent announcement that the company will build a siren system in Platteville should resolve the problem of the need for redundancy in the Alert and Notification System.

Finally, the scenario of the next Exercise should challenge the decisionmaking capabilities of the field monitoring team, the

staff of the media center, those persons charged with evacuating and sheltering special populations, and the players of the Forward Command Post. The short duration scenario used in this Exercise was not well suited to a high temperature, gas cooled reactor, such as the one in operation at Fort St. Vrain. Hours or even days would pass before significant off-site response would be required in the five-mile EPZ. The scenario should incorporate compressed time to more accurately reflect this response to an HTGR.

FORT ST. VRAIN
VICINITY MAP
ATTACHMENT NO. 1



Update 6/28/85

FEMA REGION VIII
REGIONAL ASSISTANCE COMMITTEE (RAC) TEAM MEMBERS

Floyd Shoemaker*, Interim Chairperson FEMA Region VIII Denver Federal Center, Bldg. 710 P. O. Box 25267 Denver, CO 80225-0267	FTS 322-4929 (303) 235-4929
Frank Allison, Director (Dan Berman) Planning and Highway Development Federal Highway Administration, Region VIII 555 Zang, Room 400 Lakewood, CO 80228	FTS 776-3328 (303) 236-3328
Phillip C. Nyberg Health Physicist (Carl Peterson, Environmental Protection Advisor) FTS 564-1651 U. S. Environmental Protection Agency 8 HWM-RP C- Denver Place 999 18th St., Suite 1300 Denver, CO 80202-2413	FTS 564-1649 (303) 293-1649 (303)293-1651
Steve Farkas Emergency Planning Specialist Idaho Falls Operations Office U. S. Department of Energy 550 2nd Street Idaho Falls, ID 83401	FTS 583-1367 (208) 526-1367
Bob Dillard Regional Health Representative U. S. Food & Drug Administration U. S. Customs House, Room 500 721 19th Street Denver, CO 80202	FTS 564-4917 (303) 844-4915
Robert Heggie Emergency Coordinator Public Health Service, Region VIII Department of Health & Human Services 11037 Federal Office Bldg. Denver, CO 80294	FTS 564-3203 (303) 844-3203 ext. 54
Gary Sanborn (Robert D. Martin, Regional Administrator) U. S. Nuclear Regulatory Commission, Region IV 611 Ryan Plaza, Suite 1000 Arlington, TX 76011	FTS 728-8267 (817) 860-8100

Mrs. Cheryl Malina
Office of Emergency Planning
USDA-FSIS-PPP
Room 2940-South Building
14th and Independence Sts., SW
Washington, D. C. 20250

FTS 475-3683

Marco Beteta
Red Cross Representative
FEMA Region VIII
Denver Federal Center
P. O. Box 25267
Denver, CO 80225-0267

(303) 235-4815
FTS 322-4815

Marvin Davis
Public Affairs Officer
FEMA Region VIII
Denver Federal Center
P. O. Box 25267
Denver, CO 80225-0267

(303) 235-4810
FTS 322-4810

John Lukens, Program Manager
Communications and Warning
FEMA Region VIII
Denver Federal Center
P. O. Box 25267
Denver, CO 80225-0267

(303) 235-4874
FTS 322-4874

Wallace Moore, Chief
Communications Branch
FEMA Region VIII
Denver Federal Center
P. O. Box 25267
Denver, CO 80225-0267

(303) 235-4940
FTS 322-4940

Carl Pawlass, Program Manager
Radiological Program
FEMA Region VIII
Denver Federal Center
P. O. Box 25267
Denver, CO 80225-0267

(303) 235-4857
FTS 322-4857

Brad Salmonson
Staff Scientist
Westinghouse Idaho Nuclear Company
Box 4000-CPP 637
Idaho Falls, ID 83403

FTS 583-3314

(Not members of the Regional Assistance Committee)

Marlow Stangler
Office of Natural & Technological Hazards
Technological Hazards Division
Federal Emergency Management Agency
500 C Street SW
Washington, D. C. 20472

FTS (202) 646-2856

Bruce Smith
Radiological Officer
Division of Disaster Emergency Services
Camp George West
Golden, CO

FTS 322-4990
(303) 273-1786