6-21-84

Docket: 50-267

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

Gentlemen:

Enclosed are exercise reports for the joint offsite radiological emergency preparedness exercises conducted on June 3, 1982, and June 10, 1983, for the Fort St. Vrain Nuclear Generating Station with the state of Colorado and Weld County, Colorado.

Please review the reports and be prepared to cooperate with state and local officials as necessary during their efforts to correct the exercise deficiencies.

Sincerely,
Original Signed By
E. H. Johnson

E. H. Johnson, Chief
Reactor Project Branch 1

Enclosures:
As stated

cc w/enclosures:
D. W. Warembourg, Nuclear Production Manager
Fort St. Vrain Nuclear Station
P.O. Box 368
Platteville, Colorado 80651

J. Gahm, Quality Assurance Manager
(same address)

bcc to DMB (AO 45) for dist. w/encl.

bcc distrib. by RIV:

RPB1	Resident Inspector	J. Collins, RA
Section Chief (SP&ES)	C. A. Hackney	J. L. Montgomery w/encl.
P. Wagner, RPB1	R. Denise, DRS&P	G. Sanborn w/encl.
RIV File	D. Powers, RPB1	D. B. Matthews, EPB
COLORADO STATE DEPT. HEALTH	w/encl.	R. Bangart

EPA	ER&PS	DRS&S	SP&ES	RPB1	AI 84-321
JMontgomery/lr	JBaird	RBangart	RIreland	EJohnson	
6/21/84	6/21/84	6/21/84	6/21/84	6/21/84	

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Federal Emergency Management Agency

Region VIII Denver Federal Center, Building 710 Denver, CO 80225

7 JUL 1983

MEMORANDUM FOR: ALTON D. COOK, REGIONAL DIRECTOR

FROM: Jerome Olson, Chief
Natural and Technological
Hazards Division

SUBJECT: Fort St. Vrain Exercise, 1983

ISSUE: Whether the State of Colorado and Weld County emergency and preparedness plans as exercised in this limited scenario are adequate to protect the health of the population from the off-site effects of a radiological emergency of the Fort St. Vrain Nuclear Power Plant?

SUMMARY: The health of the citizens in the areas surrounding the Fort St. Vrain Nuclear Power Plant would have been protected by the utilization of the Radiological Emergency Response Plan by the Colorado Division of Disaster Emergency Services, Colorado State Health Department, State Police and the Weld County Sheriff's Department and others.

BACKGROUND: The State Radiological Emergency Response Plan for Fort St. Vrain was approved by all necessary regulatory agencies in 1980. This exercise reflects an extensive site, however limited offsite, scenario for a defined Site Emergency at a fixed facility nuclear power plant. The objectives for FOSAVEX-83 exercise, jointly developed by the State of Colorado and Public Service Company of Colorado were forwarded to FEMA VIII, March 24, 1983. the scenario was not received by FEMA until June 10, 1983. The objectives and the resultant scenario are the criteria against which the exercise will be evaluated. The evaluation is based upon the NUREG-0654-FEMA-REP-1 (Rev. 1), the proposed rule 44 CFR 350 and the Guidance Memorandum, Number 17, utilizing a module-oriented evaluation tool developed, under a contract, by the Argonne Laboratory. The off-site observation team was comprised of the Regional Assistance Committee, additional FEMA staff members, and Red Cross volunteers.

A joint Nuclear Regulatory Agency (NRC), Colorado, Weld County, Public Service Company of Colorado, and FEMA critique was held June 16, 1983, at Fort St. Vrain Visitor Center.

CONCLUSIONS: The requirements of NUREG-0654-FEMA-REP-1, (Rev. 1) and proposed rule 44 CFR 350 limits the scope of FEMA's evaluation to the single question relating to the adequate protection of the health of the population around a fixed nuclear facility. The conclusion of the Regional Assistance Committee is that the health of the population was and would have been protected under the conditions stated for the objectives and scenario. The objectives and scenario were jointly developed by the State of Colorado and Public Service Company of Colorado.

A judgement that the health of the population was protected does not imply that all aspects of the exercise were 100% effectively executed. In the past, a major deficiency has been the inability to communicate effectively with the Colorado State Health Departments field health assessment teams. A portion of these concerns has been alleviated by the availability of the State of Colorado communication van. The 5 watt receiver/transmitters were shown once again to not be an effective communication device under these circumstances. A more powerful receiver/transmitter unit or the utilization of a repeater would be recommended in part to help solve this problem.

ASSESSMENT: The major assessment modules as developed by the Argonne Laboratory utilized by the RAC to evaluate this exercise were:

1. Emergency Operation Center
2. Forward Command Post
3. Media
4. Medical Support
5. Decontamination
6. Field monitoring
7. Radiological Laboratory

Emergency Operations Center (EOC)

The manning of EOC was by design limited. The anticipatory climate surrounding the exercise made critical evaluation difficult. Staffing was effectively accomplished with the apparent ability to upgrade involvement if necessary. Duties were performed in a very professional non-crisis atmosphere. Data, information and recommendations were received, evaluated, discussed, and verified in a direct manner. The necessary State representatives were in attendance. Media briefing was developed and delivered effectively. The FCP management team was dispatched to forward command post with speed, reflecting the anticipatory atmosphere of the EOC. Some confusion resulted from apparent procedural errors at the power plant control room. The NRC will evaluate these

incidents. FEMA used the exercise to activate the Regional Emergency Response Team and were provided space to function.

Fort Lupton Forward Command Post (FCP)

After the activation of the FCP team, the staffing was accomplished rapidly. The power plant control room communication errors, of failing to adequately notify the Weld County dispatcher and Sheriff's department, resulted in a delayed arrival of the security force and field patrol units. Little confusion resulted at the FCP as a result of the communication delay except for the presence of media representatives and the failure to utilize a badging procedure.

The FCP operated with an organized, informal effectiveness that could possibly break down in an actual incident. An argument can be effectively advanced to tighten managerial control. Independent of this possible criticism, data were collected, directions given, and recommendations were developed involving the several state, local, and utilities representatives Decisions were carried out in a free-flowing, professional manner utilizing direct and rapid communications with the EOC. Limitation imposed by the scenario resulted in some confusion, verification delays, and increased decision making. The major contributor to any delay was the inability to communicate quickly, directly, and effectively with the field monitoring and assessment teams.

The police component represented by the Colorado State Police and the Weld County Sheriff's Department functioned in a most professional manner. Informational road blocks were established, marginal security was established at the FOC, and details for specific evacuation procedures were quickly developed.

Field Monitoring and Radiological Laboratory

The Colorado State Health Department field assessment team (as per the scenario) played the exercise very low key with only one team being deployed. Radio equipment shown in previous exercises to be ineffective limited the training opportunity for Health Department personnel as well as compromising field communications for the exercise. At least two pieces of equipment in the field van were labeled with expired calibration date. Significant backup equipment and analytical capabilities by scenario design were isolated from the field exercise with the supply van stationed at the FCP. This reserve of equipment if brought into service would have extended the departments' activities. The field team

was not adequately prepared to respond to the deficiencies in communications. No rapid or consistant communications were possible until the arrival of the National Guard unit. Inappropriate notification via FEMA observer equipment resulted in the National Guard deployment.

One source of confusion arose when the decision was made to hold the wind direction constant. This decision was consistent with the pre-set scenario. Field and prompted data were co-mingled causing apparent inconsistencies. Verification of this data did demonstrate effective action by the forward command post personnel. This effort would have been greatly simplified by additional direct communication links with the field health assessment teams.

Medical Support and Decontamination

The 1983 scenario started with an electrical fire, equipment failure, and a personnel injury. A clear message was not sent from the plant command center to the ambulance service. Therefore, even though the "victim" was located and treated effectively on site and the St. Luke's Hospital was adequately prepared to treat an injured, contaminated victim, the whole scheme was not completed.

Tone Alert System

The Tone Alert System was activated and an appropriate message broadcast. The Emergency Broadcast System was alerted by a no message broadcast. Data to determine the efficiency of the Tone Alert System relative to this exercise is being collected by Mr. Robert Heggis, a RAC member, of Human Health Services. The preliminary results suggest similar findings to last year. The evaluation tool, timing and procedures may not have the sensitivity required to prove effectiveness. Recommendations specific to this problem will be developed over the next few months.

RECOMMENDATIONS:

1. A full scale, unannounced, multimedia hazards exercise should be developed involving the Fort St. Vrain nuclear power plant. Particular emphasis should be given to the realities of the plant's operation and design. A recovery phase operation that would necessitate federal, state, and local coordination should be included in the development and execution of the scenario (FOSAVEX-84).

2. The communications system should be independently evaluated and expanded if the primary system is inadequate to provide field communication with the capacity for direct FCP - field assessment team communications.

cc:
Mr. Pat Byrne (2)
Mr. Al Hazel
Regional Assistance Committee (12)
Mr. Marlow Stangler

FORT ST. VRAIN FOSAVEX-82
RAC EVALUATION

Federal Emergency Management Agency

Region VIII Denver Federal Center, Building 710 Denver, CO 80225

June 18, 1982

MEMORANDUM FOR: Richard W. Krimm, Assistant Associate Director
Office of Natural and Technological Hazards

FROM: Jerome M. Olson, Acting Chief
Natural and Technological Hazards Division

SUBJECT: Fort St. Vrain Exercise- June 3, 1982

Re: Memorandum dated April 5, 1982
Lee M. Thomas/Regional Directors
"Uniformity of Evaluation Reports"

The attached material is self-explanatory. It is intended to fulfill the requirements set forth in the referenced memorandum.

Attachment Number 1 is the Region VIII letter sent to the Director, Division of Disaster Emergency Services soliciting response to perceived deficiencies noted in the exercise. A copy of the State's reply will be provided your office when received.

All material submitted herein has also been provided both the State and Regional Assistance Committee members.

INDEX

Federal Emergency Management Agency
Region VIII Denver Federal Center, Building 710 Denver, CO 80225

June 18, 1982

Mr. J. P. Byrne, Director
Division of Disaster Emergency Services
Camp George West
Golden, Colorado 80401

Dear Mr. Byrne:

I have made every attempt to develop the "hardcopy" follow-up exercise evaluation data in accordance with the "Interim Critique Report". You recall, this "Critique" was given you the day following the exercise.

As is usually the case when a hurried report is made, after grinding out a "composite" report from all parties concerned, there have been some modest changes. There are no "surprises" however, and if changes were made it was in degree and not in kind. It is important for you to note the last paragraph on the last page of the "Interim Critique Report". This office continues to support the contention that both the State and Weld County Plans are adequate to protect the health and safety of the public.

The Participant Questionaires are of interest. Even though most of the players did not return their copies the ones that did checked some interesting squares. An educational-program may be in order.

Your cooperation is urgently needed in responding to the "Significant" as well as the "Minor" deficiencies noted in Attachments 5 and 6 respectively of the attached material. What is needed is the schedule for any corrective action you intend to implement.

Just as a personal note, the three Fort St. Vrain exercises have made me an exercise booster. Each exercise has provided subtle insight on RERP items previously thought unassailable insofar as implementation goes. The assumption that the Tone-alert receivers would be activated when expected by a phone call to the NWS showed that one additional operational step must be taken; namely, call the Forward Command Post and ask the Coordinator if the receivers have, in fact, been activated.

Sincerely,

N. Paul Alley

N. Paul Alley, Chairman
Regional Assistance Committee

Attachment 1

MEMORANDUM FOR: Richard W. Krimm, Assistant Associate Director
Office of Natural and Technological Hazards

FROM: Jerome M. Olson, Acting Chief
Natural and Technological Hazards Division

SUBJECT: Fort St. Vrain Exercise June 3, 1982
Evaluation- Cover Sheet

RE: Memorandum Dated April 5, 1982
Lee M. Thomas/Regional Directors
Uniformity of Evaluation Reports

Date of this report ..... June 17, 1982

Date of the exercise ..... June 3, 1982

State & localities involved..... State only - CO

Locality in EPZ not participating..... Weld County

Evaluators

FEMA..... 5

FHWA..... 2

EPA 1

DOE 0

FDA 2

HHS 1

NRC 1

USDA..... 1

Attachment 2

SUBJECT: Fort ST. Vrain Exercise June 3, 1982
Evaluation- Executive Summary

With one exception the Executive Summary is identical with the Interim Critique Report that was prepared post-exercise and given the Director, Division of Disaster Emergency Services. The concluding sentence was orally presented during the public forum but was not "written" into the Interim Critique Report until later.

The concluding comment is a judgement and is as follows:

> "The two exercises done in the past together with the current exercise showed that the licensee as well as State & local RERPs are adequate to protect the health and safety of the public."

Attachment 3

INTERIM CRITIQUE REPORT

This is an Interim Critique for the Fort St. Vrain Nuclear Power Station Exercise conducted on June 3, 1982, 198 . The report highlights the findings of 8 observers of the FEMA Region VIII RAC. A more detailed report will be provided later. This report consists of 10 functional areas and cites activities of participating offsite State and local jurisdictions.

I. EMERGENCY OPERATIONS, FACILITIES AND RESOURCES
(Working space, internal communications and displays, communications, security)

State: EOC- *All observers generally agreed that the facilities and resources adequate. (One problem surfaced concerning the new telephone system but it was resolved early).*

FCP- *The FCP showed vast improvement over last years facility. However, it was generally agreed that internal communications, displays and communication with field teams in need of improvement. The consensus opinion was to model the FCP after the State EOC (at a considerably reduced level). The fact that a PA system was available but not used reinforced observer confusion as to "who was in charge".*

Local:

II. ALERTING AND MOBILIZATION OF OFFICIALS AND STAFF
(Staffing, 24-hour capability, alerting timeliness)

State: *There was some difficulty noted in initially alerting and mobilization because some numbers needed updating. It was also suggested that, instead of using the acronymn DODES, the full agency name should be stated. This should help in minimizing the need to repeat the word.*

Local:

Fort St. Vrain Exercise
Facility Name

III.. EMERGENCY OPERATIONS MANAGEMENT
(Organization, control, leadership, support by officials, information flow between levels and organizations, decisionmaking, checklists and procedures)

State: EOC- Adequate. Leadership evident and briefings conducted so all could know status of play. The briefing at about 10:30 which provided a direct interaction with the participating agencies by directing their attention to their specific area of play received several kudos.

FCP- The degree of control and display of leadership at the EOC was not evident at the FCP. Internal information flow between levels and organizations may have existed but it was not apparent to the observers. Again, use of the PA system would have strengthen lead coordination. It would have assisted immeasureably in the conduct of briefings.

Local:

IV. PUBLIC ALERTING AND NOTIFICATION
(Means of notification, e.g., sirens, vehicles, or other systems, notification timeliness)

State: Within the scheme of this exercise, the Tone Activated Alerting system did not work. A FEMA task force (composed of RAC and Red Cross workers) checked 150 buildings before 11:50 am and 130 after.

Those checked after the receivers had been activated showed: 45 people were not at home or their dogs were; 44 received the alert; 37 were at home but did not hear the message for one reason or another; 4 houses did not have a unit or the unit they did have did not work. A more detailed evaluation will be included in a later report.

Local:

Fort St. Vrain Exercise
(Facility Name)

V. PUBLIC AND MEDIA RELATIONS
(Publications, press facilities, media briefings, news release coordination)

State: Public and media relations appeared adequate. There was a suggestion that a more all inclusive briefing could be obtained if exercise participants could prepare information bulletins, where appropriate, for inclusion with the overall report prepared by the EOC or FCP Coordinator. We get the status of the plant but we don't ordinarily concern ourselves with the status of people or farm animals.

Local:

VI. ACCIDENT ASSESSMENT
(Staff and field operations, monitoring, adequacy of equipment, technical calculations, use of PAGs, issuance of timely recommendations)

State: Accident assessment appeared adequate in almost all respects. There did appear to be a communication problem with respect to correlating plant projected data and the Health Department's verification of the plants data.

Local:

Fort ST. Vrain Exercise
(Facility Name)

VII. ACTIONS TO PROTECT THE PUBLIC
(Sheltering, evacuation, reception and care, transportation)

State: Adequate

Local:

VIII. HEALTH, MEDICAL, AND EXPOSURE CONTROL MEASURES
(Access control, adequacy of equipment and supplies, dosimetry, use of KI, decontamination, medical facilities and treatment)

State: Scope of exercise precluded response in these areas.

Local:

Attachment 3

Fort St. Vrain Exercise
(Facility Name)

IX. RECOVERY AND REENTRY OPERATIONS
(Adequacy of Plans and Procedures)

State: There appeared to be some confusion near exercise term. Plant's determination of a drop-down to "unusual event" prevented a close out of the exercise. The STate plan does not define this term.

Local:

X. RELEVANCE OF THE EXERCISE EXPERIENCE
(Benefit to participants, adequacy of the scenario)

State: The exercise was considered relevant however, FCP organization and communication problems have been noted in past exercises. One RAC member stated that, as he recalled, the first exercise was superior to this latest.

One point was brought out several times... it related to the briefing Len Boulas held at the EOC where he not only briefed the audience but he made suggestions to the participants the various areas the responding agency might have some concern.

Local: Another RAC member praised the Red Cross and the Department of Agriculture in their level of awareness and degree of response to exercise conditions.

** THE TWO EXERCISES DONE IN THE PAST TOGETHER WITH THE CURRENT EXERCISE SHOWED THAT THE LICENSEE AS WELL AS STATE & LOCAL RERPS ARE ADEQUATE TO PROTECT THE HEALTH AND SAFETY OF THE PUBLIC.

N. Paul Alley 6/3/8

N. Paul Alley, RAC Chairman
FEMA Region VIII

Attachment 3

EXERCRIT

(DATA RECORDING FORM)

LOCALITY EXERCISED State FUNCTION EOC & EOF (FCP)
(EOC, Police, Etc.)

FACILITY Fort St. Vrain DATE June 3, 1982

TEAM LEADER Alley AGENCY FEMA

OBSERVER* AGENCY* Composite Report

*(ENTER -COMPOSITE- ON TEAM LEADERS CONSOLIDATED COPY)

THE SYSTEM FOR RATING WILL BE AS FOLLOWS (SEE ATTACHMENT 1 FOR COMPLETE DESCRIPTIONS):

N - NOT OBSERVED: NOT APPLICABLE, NO DEFICIENCY IMPLIED
1 - CAPABILITY LACKING: RESPONSE CALLED FOR BUT NOT DEMONSTRATED
2 - CAPABILITY WEAK: SIGNIFICANT DEFICIENCIES NOTED OR CONFLICT WITH PLAN
3 - CAPABILITY ACCEPTABLE: DEFICIENCIES NOTED THAT COULD POTENTIALLY LIMIT EFFECTIVE PERFORMANCE
4 - CAPABILITY GOOD: ONLY MINOR DEFICIENCIES NOTED
5 - CAPABILITY OUTSTANDING: NO DEFICIENCIES NOTED, NO IMPROVEMENTS NECESSARY

TEAM LEADER USE ONLY:
STATE Co
DESIG 0
SITE 35
DATE 6/3/82

THIS DATA SHOULD BE ENTERED IN FIELD 13 (FLDTEST) OF THE DATA BASE WITHIN 72 HOURS POST EXERCISE

Attachment 4

February 1982

OBSERVER: Composite

ACTIVITY TO BE EVALUATED	TIMELY (Y/N)	AREAS FOR IMPROVEMENT (CHECK) TRAINING FORMAL OJT	RESOURCES EQUIP PERS	PLAN ORG CONT	RATING (1-5)	SECTION ELEMENT	FLAG
SUMMARY 1 - EMERGENCY OPERATIONS, FACILITIES & RESOURCES (SPACE, INTERNAL COMM., DISPLAYS, SECURITY)					4T		

The overall adequacy of emergency operations is rated four (4) however, the State EOC is rated 4 and the Forward Command Post (FCP) is rated 3. The FCP facilities were improved from last year but lacked amenities that would permit ease of operation. Displays minimal; organizational control weak; communication (briefings) licensee controlled; security strong at start but relaxed toward end of play.

ADEQUACY OF COMMUNICATIONS SYSTEMS (PRIMARY AND BACKUP) WITH CONTIGUOUS STATE/LOCAL GOVERNMENTS WITHIN THE EPZS	----	---	---	---	---	---	---	4!	F	1B

EOC and FCP communications good with primary and backup capability.

ADEQUACY OF COMMUNICATIONS, AS APPROPRIATE, WITH FEDERAL EMERGENCY RESPONSE ORGANIZATIONS	----	---	---	---	---	---	---	4!	F	1C

New EOC Centrex telephone system enhanced operational communication considerably. FEMA representative handled the federal response organizations. Active response not necessary.

ADEQUACY OF COMMUNICATIONS SYSTEMS BETWEEN THE NUCLEAR FACILITY AND NEAR-SITE EOF, AND STATE AND FOR LOCAL EOCS	----	---	---	---	---	---	---	4!	F	1D

Licensee's communication with FCP, EOC and its own executive offices appeared good.

ADEQUACY OF SPECIFIC STATE OR LOCAL RESOURCES NEEDED TO SUPPORT FEDERAL RESPONSE		---	---	---	---	---	---	N	C	1C

The scope of the exercise did not include active or simulated response of Weld County forces.

OBSERVER: COMPOSITE — ACTIVITY TO BE EVALUATED	TIMELY (Y/N)	AREAS FOR IMPROVEMENT (CHECK) TRAINING FORMAL	TRAINING OJT	RESOURCES EQUIP	RESOURCES PERS	PLAN ORG	PLAN CONT	RATING (1-5)	SECTION ELEMENT	FLAG
ADEQUACY OF EOC WORKING SPACE AND AMENITIES	---	---	---	X	---	---	---	4M		

EOC space and amenities good. Forward Command Post lacked informative displays; briefing space; attention getting devices; strong leadership amenities (podium, PA system).

(In all fairness it can be said the FCP facilities are considerably improved over those used last year. Improvement was more in licensee communication with the plant and the State EOC than on the operational considerations for the near-site forces.

ADEQUACY OF EOC INTERNAL COMMUNICATIONS, INCLUDING EQUIPMENT, DISPLAYS, AND MESSAGE-HANDLING PROCEDURES	---	X	X	---	---	---	4M		

EOC adequate. In addition to the points made above there was a problem in internal message handling. Some messages intended for immediate communication with the field as well as some messages coming from the field were not handled expeditiously. FCP

ADEQUACY OF EOC SECURITY MEASURES	---	---	---	---	---	---	4!		

EOC adequate. FCP- security extremely tight to start with but relaxed as exercise security relaxed somewhat.

OVERALL ADEQUACY OF THE EMERGENCY OPERATING CENTER (EOC)	---	---	---	---	---	---	4!	H	9	--

EOC overall adequacy good. FCP overall adequacy fair.

ADEQUATE MAPS DISPLAYED SHOWING EVACUATION ROUTES, SAMPLING POINTS, RELOCATION CENTERS AND SHELTER AREAS	---	---	X	---	---	---	3M	J	10A	--

EOC- did not show maps of sampling points. Forward Command Post displayed only one small map showing positions of field monitoring teams. For the most part this map showed no field measurements. This map depicted little operational play or use of assessment teams. (Communication with the field almost non existent thereby making use of the map marginal at best.)

OBSERVER: Composite

ACTIVITY TO BE EVALUATED	TIMELY (Y/N)	AREAS FOR IMPROVEMENT (CHECK) TRAINING FORMAL	TRAINING OJT	RESOURCES EQUIP	RESOURCES PERS	PLAN ORG	PLAN CONT	RATING (1-8)	SECTION ELEMENT	FLAG
ADEQUATE MAPS DISPLAYED SHOWING POPULATION DISTRIBUTION NEAR NUCLEAR FACILITY BY EVACUATION AREAS		---	---	X	---	---	---	3/7	J 10B	--

EOC- There did not appear to be any maps showing population distribution by evacuation areas.
FCP- No maps in accordance with this element.

OBSERVER: Compositt

ACTIVITY TO BE EVALUATED	TIMELY (Y/N)	AREAS FOR IMPROVEMENT (CHECK) TRAINING FORMAL	TRAINING OJT	RESOURCES EQUIP	RESOURCES PERS	PLAN ORG	PLAN CONT	RATING (1-5)	SECTION ELEMENT	FLAG
SUMMARY II - ALERTING AND MOBILIZATION OF OFFICIALS AND STAFF (STAFFING, 24-HOUR CAPABILITY, ALERTING TIMELINESS)								4!		

Licensee and State practice in alerting and mobiliztion of forces evident. The alert was timely. It is known that the State has a 24-hour capability but this exercise conducted during working hours.

CAPABILITY FOR 24-HOUR INITIAL EMERGENCY RESPONSE AND MANNING OF COMMUNICATIONS		---	---	---	---	---	---	N	A	1E

Capability known to exist but not tested.

CAPABILITY FOR 24-HOUR CONTINUOUS EMERGENCY RESPONSE OPERATIONS		---	---	---	---	---	---	N	A	4

Capability (from peacetime disasters) known to exist but not tested.

ADEQUACY OF PROCEDURES USED FOR NOTIF. OF EMER. RESPONSE ORGANIZATIONS INCLUDING MEANS FOR VERIFICATION OF MESSAGES		---	---	X	---	---	---	4!	R	1

Fort St. Vrain alerted EOC of unusual event; verification may have been to a telephone number Fort St. Vrain people told the EOC to call. If this the case then it is not in accordance with RERP.

ADEQUACY OF PROCEDURES USED FOR ALERTING, NOTIFYING AND MOBILIZING EMERGENCY RESPONSE PERSONNEL		---	---	---	---	---	---	4!	E	2

Procedures adequate. Fanout in accord with RERP.

OBSERVER: ---------- ACTIVITY TO BE EVALUATED	TIMELY (Y/N)	AREAS FOR IMPROVEMENT (CHECK) TRAINING FORMAL OJT	RESOURCES EQUIP PERS	PLAN ORG CONT	RATING (1-5)	SECTION ELEMENT	FLAG
						C. 2A	

IF APPROPRIATE, TIMELY DISPATCH OF A REPRESENTATIVE TO LICENSEES NEAR-SITE EOF ---- --- --- --- --- --- --- 4!

EOC- Timely dispatch made and Forward Command Post observed to be manned in a timely manner.

ADEQUACY OF EMERGENCY RESPONSE COMMUNICATIONS EQUIPMENT USED WITH PROMPT ACTIVATION ---- --- --- --- --- --- --- 4! F 1A --

Primary system was telephone with radio back-up. System adequate.

ADEQUACY OF COMMUNICATIONS EQUIPMENT USED FOR ALERTING AND ACTIVATING EMERGENCY RESPONSE PERSONNEL ---- --- --- --- --- --- --- 4! F 1E --

Alerting process effective and emergency personnel responded.

CAPABILITY TO COMMUNICATE WITH FIXED AND MOBILE MEDICAL SUPPORT FACILITIES ---- --- --- --- --- --- --- N F 2 --

Scope of exercise did not permit test of this capability.

DEMONSTRATION OF TIMELY AND EFFICIENT ACTIVATION AND STAFFING OF EOCS AND OTHER FACILITIES ---- --- --- --- --- --- --- 4! H 4 --

State EOC and FCP efficiently activated and on a timely basis- based on unannounced criteria.

OBSERVER: COMPOSITE

ACTIVITY TO BE EVALUATED	TIMELY (Y/N)	AREAS FOR IMPROVEMENT (CHECK) TRAINING FORMAL	TRAINING OJT	RESOURCES EQUIP	RESOURCES PERS	PLAN ORG	PLAN CONT	RATING (1-5)	SECTION ELEMENT	FLAG
SUMMARY III - EMERGENCY OPERATIONS MANAGEMENT (ORGANIZATION, CONTROL, LEADERSHIP, SUPPORT BY OFFICIALS, DECISION MAKING)								3T		

EOC rating four (4). The FCP rating three (3). Command and control of the situation at the FCP was not readily apparent. This may have been due to the licensee's control of data emanating from the facility and the licensee's dispensation of the data to the State. The State appeared to accept the data as given; however, the data did not precipitate command actions to FCP response agencies. It appeared licensee's data dictated each response agencies actions.

EVIDENCE THAT SPECIFIC ORGANIZATIONS HAVE BEEN ADEQUATELY ESTABLISHED AS PART OF OVERALL RESPONSE		---	---	---	---	---	---	4!	A	1A

EOC adequate. FCP organizations established but inter-agency control needed for overall control of response actions at the FCP.

DEMONSTRATION THAT A SPECIFIC INDIVIDUAL, BY TITLE, WAS EFFECTIVELY IN CHARGE OF EMERGENCY RESPONSE		----	---	---	---	---	---	3T	A	1D

EOC adequate. FCP lacked of amenities to focus control as well as other factors which effected development of strong leadership of State forces.

DEMONSTRATION THAT PRIMARY & SUPPORT FUNCTIONS & RESPONSIBILITIES HAVE BEEN ASSIGNED TO SPECIFIC ORGANIZATIONAL ELEMENTS		---	---	---	---	---	---	4!	A	2A

Both EOC and FCP demonstrated that primary and support functions and responsibilities assigned to specific organizational elements. However, at the FCP nameplates would have been helpful to separate the players from observers.

EVIDENCE THAT A SPECIFIC PERSON HAS BEEN AUTHORIZED TO REQUEST FEDERAL ASSISTANCE (STATE ONLY)		----	---	---	---	---	---	N	C	1A

Plan designates this responsibility. No assistance needed so this element not tested.

OBSERVER: COMPOSITE

ACTIVITY TO BE EVALUATED	TIMELY (Y/N)	AREAS FOR IMPROVEMENT (CHECK) TRAINING FORMAL	TRAINING OJT	RESOURCES EQUIP	RESOURCES PERS	PLAN ORG	PLAN CONT	RATING (1-5)	SECTION ELEMENT	FLAG
AN EMERGENCY CLASSIFICATION SYSTEM WAS EFFECTIVELY USED AND WAS CONSISTENT WITH THAT OF THE UTILITY		---	---	---	---	---	---	3D	D 3	--

The general emergency classifications going into the exercise effectively used. However, there was some confusion when exercise controllers desired to go from "alert" status to an "all clear" or site only emergency. Going from alert to unusual event seemed inappropriate.

ADEQUATE WRITTEN PROCEDURES ARE USED FOR EMERGENCY ACTIONS CONSISTENT WITH FACILITY RECC AND LOCAL OFFSITE CONDITIONS	----	---	---	---	---	---	---	3D	D 4	--

Same evaluation as noted above.

DEMONSTRATION OF EFFECTIVE COORD. BETWEEN EMERGENCY RESPONSE DIR. & STAFF, THRU ORAL BRIEFINGS, STAFF MEETINGS, ETC.		---	---	---	---	---	---	3T		

EOC adequate. FCP briefings not as effective as they could have been. There was no clear distinction as to who was chief among chiefs. It was not clear how agency coordination was accomplished or how needed tasks assigned.

ADEQUACY OF SUPPORT AND/OR PARTICIPATION BY ELECTED OFFICIALS		---	---	---	---	---	---	4!		

EOC and FCP had full participation by those expected to play; namely, State and some local participants.

OBSERVER: COMPOSITE

ACTIVITY TO BE EVALUATED	TIMELY (Y/N)	AREAS FOR IMPROVEMENT (CHECK) TRAINING FORMAL OJT	RESOURCES EQUIP PERS	PLAN ORG CONT	RATING (1-5)	SECTION ELEMENT	FLAG
SUMMARY IV - PUBLIC ALERTING & NOTIFICATION (MEANS OF NOTIFICATION - SIRENS, VEHICLES, OR OTHER SYSTEMS)					2?		

One aspect of this exercise was the activation of the prompt notification system (tone activated receivers). Timely activation of the system was not accomplished due to NWS inadvertance. However, when the system was activated (about 3 hours after the initial alert was supposed to have activated the system) most receivers did activate- where homes/businesses actually visited. There are weaknesses in the system; namely, some units don't work, some people without units; public apathy toward use of the unit. E D --

EVIDENCE OF A RELIABLE SYSTEM FOR DISSEMINATION TO THE PUBLIC OF APPROPRIATE INFO RECEIVED FROM THE LICENSEE, EG., EBS	---	---	---	---	---	---	4!	

. EBS and Mets system alerted. System adequate.

ADEQUACY OF MEANS USED FOR NOTIFICATION & PROMPT INSTRUCTION TO THE PUBLIC IN THE PLUME EPZ (WITHIN 15 MINUTES)	---	---	X	---	---	---	2?	E 6 --

Alert message provide NOAA for broadcast on tone-activated receivers. Message went out but receivers not activated for about 3 hours into exercise. Since this was a State exercise, primarily, there was no followup by sheriff's office to notify public by siren & bull horn.

EFFECTIVE USE OF INSTRUCTIONAL MESSAGES FOR THE PUBLIC IN AFFECTED AREAS	---	---	---	---	---	X	3D	E 7 --

Public Service Company mounted an extensive campaign to instruct public in use of tone-activated system. At this time residents in the 5-mile EPZ were given a copy of the public educational brochure which the company had passed out the year before. It was determined that some households were in need of a new copy of the brochure.

ADEQUACY OF MEANS USED FOR NOTIFYING ALL SEGMENTS OF TRANSIENT AND RESIDENT POPULATION	---	---	X	---	---	---	2?	J 10C --

Many people were not notified because they were not near a receiver when activated. Rural community has a predominant agrarian people who generally are in the field during the work-day. In addition some residents were without the radios & some radios did not operate.

OBSERVER: ..... ACTIVITY TO BE EVALUATED	TIMELY (Y/N)	AREAS FOR IMPROVEMENT (CHECK) TRAINING FORMAL	TRAINING OJT	RESOURCES EQUIP	RESOURCES PERS	PLAN ORG	PLAN CONT	RATING (1-5)	SECTION ELEMENT	FLAG
SUMMARY V - PUBLIC AND MEDIA RELATIONS (PUBLICATIONS, PRESS FACILITIES, MEDIA BRIEFINGS, RELEASE COORDINATION)								4!		

Public and media relations good. One minor criticism involved the use of "feedback" from response agencies to EOC/FCP coordinators which could be incorporated in the media briefings. The information appeared to come from the top down with little interest in determining player's actions within their own sphere of endeavor.

EVIDENCE OF DISSEMINATION OF INFORMATION TO THE PUBLIC, WITHIN THE LAST YEAR								4!	J	1	

Considerable work was done by PSC to educate the public (brochure and tone-alert education) done in late January 1982.

EVIDENCE OF A PUBLIC INFO PROGRAM FOR PERMANENT & TRANSIENT POP IN THE PLUME EPZ, SUCH AS POSTED NOTICES, ETC.				X				3M	J	2	

During the house to house canvass of the alert and notification operational capability check, the green information brochures were also checked. It was determined coverage good but more brochures needed.

APPROPRIATE POINTS OF CONTACT FOR THE MEDIA HAVE BEEN DESIGNATED								4!	J	9A	

EOC and FCP points of contact established and adequate.

ADEQUACY OF JOINT MEDIA FACILITY, WHERE APPROPRIATE								4!			

This element satisfactory.

OBSERVER: Composite

ACTIVITY TO BE EVALUATED	TIMELY (Y/N)	AREAS FOR IMPROVEMENT (CHECK) TRAINING FORMAL	TRAINING OJT	RESOURCES EQUIP	RESOURCES PERS	PLAN ORG	PLAN CONT	RATING (1-5)	SECTION ELEMENT	PLAN
ADEQUACY OF ISSUED PRESS RELEASES	----	---	X	---	---	---	---	4T		

With the exception of the "minor" point made below (response agency feedback) the adequacy of press releases satisfactory.

ACTIVITY TO BE EVALUATED	TIMELY (Y/N)	AREAS FOR IMPROVEMENT (CHECK) TRAINING FORMAL	TRAINING OJT	RESOURCES EQUIP	RESOURCES PERS	PLAN ORG	PLAN CONT	RATING (1-5)	SECTION ELEMENT	PLAN
A MEDIA SPOKESPERSON HAS BEEN DESIGNATED WHO HAS ACCESS TO ALL NECESSARY INFORMATION	---	---	X	---	---	---	---	3T	•	4A --

Media spokesperson designated; however, releases should have included feedback information from response agencies.

ACTIVITY TO BE EVALUATED	TIMELY (Y/N)	AREAS FOR IMPROVEMENT (CHECK) TRAINING FORMAL	TRAINING OJT	RESOURCES EQUIP	RESOURCES PERS	PLAN ORG	PLAN CONT	RATING (1-5)	SECTION ELEMENT	PLAN
ADEQUACY OF ARRANGEMENTS FOR EXCHANGE OF INFORMATION AMONG SPOKESPERSONS	----	---	---	---	---	---	---	4!	•	4B --

Appeared adequate both at EOC and FCP.

ACTIVITY TO BE EVALUATED	TIMELY (Y/N)	AREAS FOR IMPROVEMENT (CHECK) TRAINING FORMAL	TRAINING OJT	RESOURCES EQUIP	RESOURCES PERS	PLAN ORG	PLAN CONT	RATING (1-5)	SECTION ELEMENT	PLAN
ADEQUACY OF COORDINATED ARRANGEMENTS FOR RUMOR CONTROL MEASURES	---	---	---	---	---	---	---	4!	•	4C --

Systematic briefings held; State Health Department does have rumor control telephone number for use by public seeking information.

OBSERVER: ---------- ACTIVITY TO BE EVALUATED	TIMELY (Y/N)	AREAS FOR IMPROVEMENT (CHECK) TRAINING FORMAL	OJT	RESOURCES EQUIP	PERS	PLAN ORG	CONT	RATING (1-5)	SECTION ELEMENT	FLAG
SUMMARY VI - ACCIDENT ASSESSMENT (STAFF & FIELD OPERATIONS, MONITORING, EQUIPMENT, TECHNICAL CALCULATIONS, USE OF PADS)								2?		

The equipment possessed by the State Health Department to measure radiation in the field is considered adequate. In light of communication problems there was not time to make much less verify dose assessments called for in the scenario. Communication with the field was almost impossible. "Third person" relay of messages through FCP coordinator to communication and back the same route produced delays and misunderstandings. There is urgent need for the Health Department to contact their field monitors directly.

ADEQUACY OF OFFSITE RADIOLOGICAL MONITORING INSTRUMENTS								4!	H	7	--

Survey instruments adequate, including equipment to verify as well as identify fission product release.

AN ADEQUATE CENTRAL POINT HAS BEEN ESTABLISHED FOR RECEIPT AND ANALYSIS OF FIELD MONITORING DATA AND SAMPLE MEDIA								4!	H	12	--

There was a central point setup for receipt and analysis of field monitoring data. As noted communications prevented much montoring data to be assessed. Moreover dose assessment and verification was virtually impossible due to communication "slowdown" of action and, finally, the termination of the exercise.

ADEQUACY OF CAPABILITY AND RESOURCES FOR FIELD MONITORING WITHIN THE PLUME EPZ				X				4!	1	7	--

State Health Department has portable instrumentation unecessary.

ADEQUATE CAPABILITY TO MAKE A RAPID ASSESSMENT OF MAGNITUDE & LOCATION OF LIQUID OR GASEOUS RADIOLOGICAL HAZARDS			X	X				2?	1	8	--

This capability tied to ability to communicate with field. That capability did not exist. Further, the indirect mode of communication (when such communication was possible) prevented direct command and control by the Health Department of its forces.

OBSERVER: COMPOSITE

ACTIVITY TO BE EVALUATED	TIMELY (Y/N)	AREAS FOR IMPROVEMENT (CHECK) TRAINING FORMAL	TRAINING OJT	RESOURCES EQUIP	RESOURCES PERS	PLAN ORG	PLAN CONT	RATING (1-5)	SECTION ELEMENT	FLAG
CAPABILITY FOR MEASUREMENT OF RADIOIODINE CONCENTRATIONS IN PLUME EPZ UNDER FIELD CONDITIONS TO 10 F-7 (STATE ONLY)	----	---	---	---	---	---	---	3T ---	I 9	--

Capability is known to exist; however, not tested during this exercise. As noted previously, the Health Department was not given time to verify the dose assessments defined in the exercise scenario.

CAPABILITY FOR RELATING MEASURED PARAMETERS TO DOSE RATES AND ESTIMATED INTEGRATED DOSES (STATE ONLY)	----	---	X	---	---	---	---	3T ---	I 10	--

Capability not tested. There was no time for the Health Department to actually make off-site assessments (before end of exercise) to determine if scenario dose assessments made by licensee correct or check out its own internal calculation process.

CAPABILITY FOR LOCATING AND TRACKING AIRBORNE RADIOACTIVE PLUME WITH AID OF FEDERAL AND/OR STATE RESOURCES (STATE ONLY)	----	---	---	---	---	---	---	N ---	I 11	--

Not demonstrated due to scope of exercise (and also due to communication difficulty with field monitors).

CAPABILITY TO RECOMMEND, PROTECTIVE ACTION, BASED ON PAGS, IN PLUME EPZ (STATE ONLY)		---	---	---	---	---	---	4! ---	J 10M	--

Protective actions recommended by both State DODES office as well as State Department of Agriculture.

EVIDENCE OF AVAILABILITY & CAPABILITY OF RADIOLOGICAL LABORATORIES (STATE ONLY)	----	---	---	---	---	---	---	N ---	C 8	--

Scope precluded need therefore not tested.

OBSERVER: ---------- ACTIVITY TO BE EVALUATED	TIMELY (Y/N)	AREAS FOR IMPROVEMENT (CHECK) TRAINING FORMAL	OJT	RESOURCES EQUIP	PERS	PLAN ORG	CONT	RATING (1-5)	SECTION ELEMENT	FLAG
SUMMARY VII - ACTIONS TO PROTECT THE PUBLIC (SHELTERING, EVACUATION, RECEPTION & CARE, TRANSPORTATION)								N		

The scope of exercise prevented exercising the RERP's provision for this contingency.

COORDINATION WITH UTILITY FOR MOVEMENT OF ONSITE INDIVIDUALS TO OFFSITE LOCATIONS	----	---	---	---	---	---	---	N	J	8 --

Not tested.

CAPABILITY FOR IMPLEMENTATION OF PROTECTIVE MEASURES	----	---	---	---	---	---	---	N	J	9 --

Not tested. Capability exists as demonstrated in past exercises.

ADEQUACY OF METHODS USED FOR PROTECTING MOBILITY IMPAIRED PERSONS, INCLUDING INSTITUTIONALLY CONFINED	----	---	---	---	---	---	---	N	J	10D --

Not tested.

ADEQUACY OF METHODS USED FOR IMPLEMENTING RELOCATION OF POPULACE	----	---	---	---	---	---	---	N	J	10E --

Not tested.

OBSERVER: ---------- ACTIVITY TO BE EVALUATED	TIMELY (Y/N)	AREAS FOR IMPROVEMENT (CHECK) TRAINING FORMAL	TRAINING OJT	RESOURCES EQUIP	RESOURCES PERS	PLAN ORG	PLAN CONT	RATING (1-5)	ACTIL.. ELEMENT	PLAN
ADEQUACY OF ORGANIZATIONS IDENTIFICATION OF AND MEANS FOR DEALING WITH POTENTIAL IMPEDIMENTS TO EVACUATION	----	---	---	---	---	---	---	N	J 10K	--

Red Cross appeared to be on top of this situation; however, scope of exercise did not preclude exercise of this option.

ADEQUACY OF PROTECTIVE MEASURES IN INGESTION EPZ, INCLUDING DAIRY FACILITIES, FOOD PROCESSING PLANTS, ETC. (STATE ONLY)	----	---	---	---	---	---	---	N	J 11	--

State Department of Agriculture had this under control. There was no need to activate protective measures; however, capability exists.

ADEQUATE RELOCATION CENTERS HAVE BEEN ESTABLISHED AT LEAST 5 MILES & PREFERABLY 10 MILES OUTSIDE THE PLUME EPZ	---	---	---	---	---	---	---	N	J 10H	--

Scope of exercise did not require testing this capability.

ADEQUACY OF FACILITIES, SUPPLIES & EQUIPMENT AT RELOCATION AND/OR MASS CARE CENTERS	---	---	---	---	---	---	---	N		

Scope of exercise precluded testing this element.

ADEQUACY OF STAFFING AT RELOCATION AND/OR MASS CARE CENTERS	---	---	---	---	---	---	---	N		

Scope of exercise precluded testing this element.

OBSERVER: COMPOSITE

ACTIVITY TO BE EVALUATED	TIMELY (Y/N)	AREAS FOR IMPROVEMENT (CHECK) TRAINING FORMAL	TRAINING OJT	RESOURCES EQUIP	RESOURCES PERS	PLAN ORG	PLAN CONT	RATING (1-5)
ADEQUACY OF PROCEDURES FOR PROCESSING EVACUEES IN RELOCATION CTRS, INCLUDING HLTH CARE, DECON & RAD MONITORING, ETC.	----	---	---	---	---	---	---	N ---

This element not exercised.

SECTION. PLAN
ELEMENT
J 12
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OBSERVER: CONTRASITE	ACTIVITY TO BE EVALUATED	TIMELY (Y/N)	AREAS FOR IMPROVEMENT (CHECK) TRAINING FORMAL	TRAINING OJT	RESOURCES EQUIP	RESOURCES PERS	PLAN ORG	PLAN CONT	RATING (1-5)	SECTION ELEMENT	FLAG
SUMMARY VIII - HEALTH, MEDICAL, AND EXPOSURE CONTROL MEASURES(ACCESS CONTROL, ADEQUACY OF EQUIPMENT, USE OF KI)									N		

The scope of the exercise prevented testing the health, medical and exposure control or the use of KI.

ADEQUACY OF PROVISIONS FOR USE OF KI FOR EMERGENCY WORKERS AND INSTITUTIONALIZED PERSONS IN PLUME EPZ	----	---	---	---	---	---	---	N	J	10E

Not tested. Plan not completely clear on use of KI at this time.

ADEQUACY OF METHODS USED IN MAKING DECISIONS TO ADMINISTER KI TO CENTRAL POPULATION	----	---	---	---	---	---	---	N	J	10F

Not exercised. A review of the Health Department's plan will be made to determine if this contingency adequately covered.

ADEQUACY OF CONTROL OF ACCESS TO EVACUATED AREAS	----	---	---	---	---	---	---	N	J	10J

Not within scope of exercise.

ADEQUACY OF A 24 HOUR A DAY CAPABILITY TO DETERMINE DOSE RECEIVED BY EMERGENCY WORKERS	---	---	---	---	---	---	---	N	K	9A

Not within scope of exercise.

OBSERVER: .....

ACTIVITY TO BE EVALUATED	TIMELY (Y/N)	AREAS FOR IMPROVEMENT (CHECK) TRAINING FORMAL	TRAINING OJT	RESOURCES EQUIP	RESOURCES PERS	PLAN ORG	PLAN CONT	RATING (1-5)	SECTION ELEMENT	FLAG
DEMONSTRATION OF ADEQUATE AND FREQUENT EMERGENCY WORKER DOSIMETER READINGS & MAINTENANCE OF DOSAGE RECORDS		---	---	---	---	---	---	N	K 3B	--
Not exercised.										
EVIDENCE THAT AN ADEQUATE DECISION CHAIN HAS BEEN ESTABLISHED TO AUTHORIZE EXPOSURE FOR EMER WORKERS IN EXCESS OF PAGS	----	---	---	---	---	---	---	N	K 4	--
Not exercised										
EVIDENCE THAT APPROPRIATE ACTION LEVELS HAVE BEEN SPECIFIED FOR DETERMINING NEED FOR DECONTAMINATION		---	---	---	---	---	---	N	K 5A	--
Not exercised										
ADEQUACY OF MEASURES FOR DECONTAMINATION OF EMERGENCY PERSONNEL, SUPPLIES, AND EQUIPMENT, AND FOR WASTE DISPOSAL		---	---	---	---	---	---	N	K 5B	--
Not exercised										
ADEQUATE CAPABILITY DEMONSTRATED BY LOCAL AND/OR BACKUP HOSPITAL AND MEDICAL SERVICES FOR HANDLING PERSONNEL		---	---	---	---	---	---	N	L 1	--
Not exercised										

OBSERVER: .....

ACTIVITY TO BE EVALUATED	TIMELY (Y/N)	AREAS FOR IMPROVEMENT (CHECK) TRAINING FORMAL	TRAINING OJT	RESOURCES EQUIP	RESOURCES PERS	PLAN ORG	PLAN CONT	RATING (1-5)	SECTION ELEMENT	FLAG
ADEQUATE CAPABILITY DEMONSTRATED FOR TRANSPORTATION OF RADIOLOGICAL ACCIDENT VICTIMS TO MEDICAL SUPPORT FACILITIES	....	---	---	---	---	---	---	N	L 4	--
Not within scope of exercise										
CAPABILITY FOR PERIODIC ESTIMATION OF TOTAL POPULATION EXPOSURE (STATE ONLY)	....	---	---	---	---	---	---	N	M 4	--
Not within scope of exercise										

OBSERVER: ----------

ACTIVITY TO BE EVALUATED	TIMELY (Y/N)	AREAS FOR IMPROVEMENT (CHECK) TRAINING FORMAL	TRAINING OJT	RESOURCES EQUIP	RESOURCES PERS	PLAN ORG	PLAN CONT	RATING (1-5)	SECTION ELEMENT	PLAN
SUMMARY IX - RECOVERY AND REENTRY OPERATIONS (ADEQUACY OF PLANS AND PROCEDURES)								3D		

The only deficiency noted was lack of licensee-State defining the signal to downgrade the classification from "alert" to "all clear".

ADEQUACY OF ESTABLISHED MEANS FOR INFORMING RESPONSE ORG THAT RECOVERY AND REENTRY CAN BE INITIATED (STATE ONLY)	----	---	---	---	---	---	X	3D	M	8	--

Same as above.

ADEQUACY OF PROCEDURES DEMONSTRATED FOR REENTRY AND RELAXATION OF PROTECTIVE MEASURES ALLOWING REENTRY	---	---	---	---	---	---	---	N	M	1	--

Scope of exercise prevented test of this element.

OBSERVER: ----------	ACTIVITY TO BE EVALUATED	TIMELY (Y/N)	AREAS FOR IMPROVEMENT (CHECK) TRAINING FORMAL OJT	RESOURCES EQUIP PERS	PLAN ORG CONT	RATING (1-5)	ELEMENT	FLAG
	SUMMARY X - RELEVANCE OF THE EXERCISE EXPERIENCE (BENEFIT TO PARTICIPANTS, ADEQUACY OF THE SCENARIO)					4!		

The objectives of the exercise achieved. The exercise showed that additional training is needed in operation of the FCP; amenities of FCP upgraded; dependable communcications with field monitoring teams assurred; time allowed for the Health Department to make its judgement on dose assessment; a means for Health Department to talk directly to their field elements. The A & N tone activated system must be re-evaluated.

	ADEQUACY OF SCENARIO TO TEST CAPABILITY TO MOBILIZE STATE AND LOCAL PERSONNEL AND RESOURCES	---	---	---	---	---	4!	N 1B

Scenario adequate. It revealed weaknesses and showed that the Forward Command Post should command most of the evaluators attention during the next exercise.

	ADEQUACY OF EX. TO TEST INTEGRATED CAPABILITIES & MAJOR PORTIONS OF THE BASIC EXISTING RESPONSE ELEMENTS IN AFFECTED ORG	---	---	---	---	---	4!	N 1A

Adequate.

	BENEFIT OF EXERCISE TO PARTICIPANTS	---	---	---	---	---	4!	

The exercise appeared to be quite beneficial. It revealed weaknesses; permitted different agencies to work together; showed a need for training; retesting of a & n system and the distinct need to solved the communication with monitor teams.

N. Paul Alley

N. Paul Alley, Chairman
Region VIII Regional
Assistance Committee

SUBJECT: Fort St. Vrain Exercise June 3, 1982
Evaluation- Summary Significant Deficiencies

A re-assessment of the tone-activated prompt notification system is considered necessary. (NUREG 0654, Element E.6)

The prompt notification system used by the Public Service Company of Colorado is the tone-activated receivers issued to all residents within the five-mile inhalation emergency planning zone. A detailed study of the operational capabilities of the system was undertaken during the exercise.

The team leader for the system evaluation was Mr. Robert Heggie, RAC member and Emergency Coordinator for the Department of Health & Human Services. Mr. James Montgomery, RAC member and Health Physicist with the Nuclear Regulatory Commission, participated in the evaluation. In addition, the task force included the Red Cross Advisor for Region VIII, Mr. Bill Cameron and three Red Cross volunteers.

A copy of Mr. Heggie's report is included as Attachment 7. The re-assessment should include:

1. Assurance all in 5-mile zone possess unit
2. All units operate satisfactorily
3. Modify State RERP to assure verification system activated.
4. Re-education of the public.
5. Assure that the tone-activated system is adequately backed-up with Weld County forces to actively assure evacuation, as necessary.

The Fort St. Vrain plan has a serious weakness in the communications operations portion. This weakness concerns State Health Department communications between mobile units and mobile units and the FCP. (NUREG 0654, I.8)

At the present time VHF radio contact between the mobile units and the FCP are poor to nonexistant. Mobile unit to mobile unit contact is poor due to the geography of the area which produces "dead spots".

Communications are presently carried on by having the State Health base station relay messages between mobile units and mobile units and the FCP. This operation effectively slows down message handling and transmission times and increases the chance for garbled or bad data being transmitted.

RECOMMENDATION: Action should be taken to replace the present Health VHF transmitter/receiver and remote units with a VHF repeater located on Lookout Mountain or some other high location. With this repeater on line the State Health Department would have excellent communications coverage over the whole northern front range area. The repeater would eliminate the radio dead spots and direct communications would be established between mobile units in the field and the FCP.

SUBJECT: Fort ST. Vrain Exercise June 3, 1982
Evaluation- Summary Minor Deficiencies

1. Emergency Operations Forward Command Post

(NUREG 0654, C.1c) The Forward Command Post lacked informative displays; dedicated briefing space; attention getting devices; name tags; consistent security procedures.

RECOMMENDATION: Duplicate some of the State EOC amenities in the FCP including security procedures.

(NUREG 0654, J. 10a) EOC did not show maps of sampling point locations. FCP lack of displays discussed elsewhere.

(NUREG 0654, J. 10b) EOC did not show maps of population by evacuation areas. The Forward Command Post lacked maps showing population distribution, evacuation routes, sampling points, relocation centers and shelter areas.

RECOMMENDATION: Equip or have available in emergency the desired maps at both EOC and FCP.

2. Emergency Operations Management

(NUREG 0654, A. 1d) Forward Command Post lacked of amenities to focus controlled leadership. Strong command and control is needed in the FCP to coordinate licensee action/reaction with State forces.

RECOMMENDATION: Provide additional coordinator FCP training and/or rotate EOC and FCP coordinator assignments.

(NUREG 0654, D. 3) Confusion was apparent in downgrading exercise from "alert" to a lesser state of emergency.

RECOMMENDATION: Modify RERP explicitly defining the "all clear" situation.

3. Public Alerting & Notification

(NUREG 0654, E. 7) During the evaluation of the tone-activated system it was determined that some residents lacked a copy of the licensee's educational brochure.

RECOMMENDATION: Provide copies of the brochure to those who do not possess a copy.

4. Public and Media Relations

(NUREG 0654, G. 2) During the house to house canvass of the prompt notification system (tone-activated receivers) it was noted that a few residents did not possess the licensee prepared informational brochure.

RECOMMENDATION: Determine need and issue the brochures as necessary.

(NUREG 0654, G. 4a.) Releases, primarily, dictated by licensee's data with some data from DODES. There appeared to be no means of getting feedback from the various response agencies for incorporation in the periodic media briefings.

RECOMMENDATION: Interrogate the various response agencies, as a matter of policy, prior to the media briefings and include agency "position" data as necessary.

5. Accident Assessment

(NUREG 0654, I. 9) The licensee's scenario does indicate radioiodine release. The exercise time-frame did not permit Health Department opportunity to "play" out the measurement of the radioiodine verification scenario committment. Communication difficulties together with the indirect field contact (via FCP Coordinator to Communication Center to field and back the same way) produced "built-in" delay factors plus possiblity for message garbling.

RECOMMENDATION: Given good communications the Health Department will have sufficient time to verify licensee exercise data. Direct field command and control of monitors will aid considerably.

(NUREG 0654, I. 10) The State Health Department was not given sufficient time to correlate the licensee's dose assessment with their own computation.

RECOMMENDATION: Same as in 5 above.

6. Recovery and Reentry

(NUREG 0654, M. 3) There was some confusion when it was decided to downgrade the exercise from "alert" to a lesser status.

RECOMMENDATION: Modify RERP to cover the situation.

Attachment 1

GENERAL SURVEY RESULTS
280 Total Sites Surveyed

150	Sites visited prior to 11:50
130	Sites visited after 11:50
280	Total sites visited
99	Not at home
181	Interviewed
280	Total sites surveyed
15	Did not have radio or have a receiving problem.

Sites that have green PSC information booklet.

136	Yes
26	No
19	Other
181	Total

Sites that has heard Weather Bureau tests.

122	Yes
26	No
33	Other
181	Total

Sites that use radio to receive severe weather alerts.

137	Yes
28	No
16	Other
181	Total

Sites that heard publicity about test before alert occurred.

95	Yes
62	No
23	Other
181	Total

Attachment 7

SPECIFIC RESULTS FROM SITES SURVEYED AFTER ISSUANCE OF ALERT
130 Total Sites Surveyed

Sites surveyed after alert.

45	Not at home
44	Received alert
41	Did not receive alert
130	Total sites surveyed after alert

Reason did not hear alert.

8	Receiver off
5	At home but out of hearing distance
6	Away from home or business
7	Set does not work correctly
15	Other
41	Total (sites surveyed after alert) not receiving alert

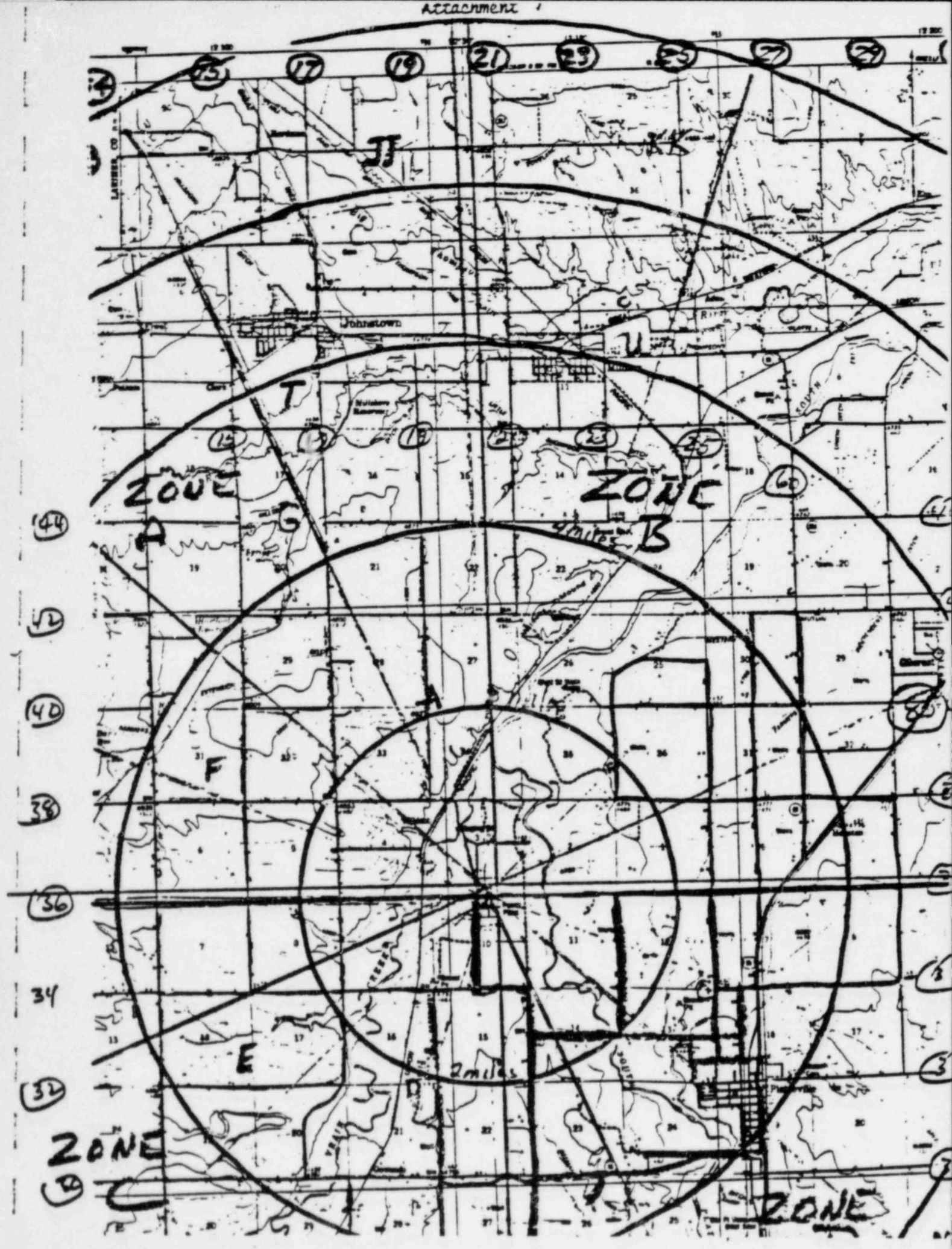
Response within 0-2 miles of plant.

2	Not at home
10	Received alert
3	Did not receive alert
15	Total sites surveyed after alert

Response within 2-4 miles of plant.

43	Not at home
34	Received alert
38	Did not receive alert
115	Total sites surveyed after alert

Attachment 1



FORT ST. VRAIN POWER PLANT

ANNUAL EMERGENCY TEST EXERCISE
June 3, 1982

PUBLIC ALERT NOTIFICATION SURVEY FORM

NAME_____

ADDRESS_____

DISTANCE FROM FT. ST. VRAIN: ( ) 0-2 miles ( ) 2-4 miles ( ) 4-5 miles

ZONE: ( ) A ( ) B ( ) C ( ) D

Time:_____ At Home ( ) Yes ( ) No ( ) Residential

YES	NO	
___	___	Do you have a Tone Activated Radio Receiver?
___	___	Does it work?
___	___	Do you still have a green brochure which lists emergency actions to take when the receiver is activated (published by PSC)?
___	___	Have you ever heard Weather Bureau tests that are conducted on Wednesdays from 11-12 a.m.
___	___	Do you use a receiver to be alerted by Weather Bureau about tornadoes, floods, etc.?
___	___	DID YOU HEAR TODAY'S TEST EXERCISE?
___	___	If no: Was receiver off?
___	___	Were you at home but out of hearing distance?
___	___	Were you away from home or business?
___	___	Did you see or hear about the test exercise before it occurred?

_____
Interviewer

Attachment 7

June 7, 1982,

Mr. Paul Alley
Federal Emergency Mngmt. Agency
Denver Federal Center
Building 710
Denver, Colorado 81225

Dear Paul:

During our June 3, 1982 survey of the Fort St. Vrain Exercise, the following sites indicated that they did not have a radio receiver or had other problems. This information is being provided to you for dissemination to the appropriate PSC and/or state official.

NAME	ADDRESS	PROBLEM
Loretta Mock	603 Olive Way	Receiver left at last residence, called for replacement but no results.
Leon Beglow	304 Olive Lane	Has problems with receiver, PSC called but response was no good.
Platteville Hardware	600 Main Street	Set does not work.
M. Camp	1200 Division	Set does not operate at all.
Linda Bedrick	14975 County Rd. 21	Set does not work on batteries.
??	1501 Balla Vista	Set does not work.
Richard Evig	13690 County Road 17	Does not have receiver, just moved in.
Morgren (Big House)	County Road 30 1/2 & 23	Does not work.
Asmaasen	8567 County Road 30	Does not work well.
Rick Apple	14533 Road 19	Just moved in, does not have receiver.
Richard Smith	16202 Road 15	Did not go off may be a problem?

Attachment 7

NAME	ADDRESS	PROBLEM
Johnson	County Rd. 19 @ RR Track	Reception poor, garbled.
Ellis	County Road 15	Does not have radio.
Yates	7790 County Road 42 @ 17	Does not have radio.
Smith	16202 County Road 15	Tone does not go off. Can push button to get weather information.

Please provide information on the disposition of this matter. Thank you in advance for your expeditious assistance.

Sincerely yours,

Robert F. Beggie
Emergency Coordinator

Attachment 7

MASTER

SEQUENCE OF EVENTS
PSV Radiological Emergency Response Plan Exercise - 1982
POSAVEX - 82

Since this is an uncontrolled exercise and the start time for the exercise has not been announced, the times given here are not critical except those times preceded by an asterisk (*). The initial conditions at the time the exercise begins—the plant is in routine operation at 70% reactor power.

Estimated Time For Event	Event (Events which affect off-site operations)
* T-0800	A non-isolatable leak in a reheat section on Loop 2 begins.
* 0813	Declaration of "notification of an unusual event" by plant personnel.
0820	1. DODES receives call on 279-8855.
0823	2. Governor's office receives call on 866-2471.
0825	3. DODES verifies by return call.
0830	4. DODES decides what actions (if any) are required by "notification of unusual event".
0830	Noble Gas at EAB reads 0.4 mrem/hr
* 0900	An "alert" is called by the plant. The off-site release calculations has an effluent for noble gases greater than ten times the Technical Specification release rate limits.
0905	1. "Alert" notification scheme begins (P.B 13-RERP).
0907	2. SEOC activation decision made.
0909	3. FCP activation decision made.
0910	4. DODES initiates callout of EOC staffing.
0910	5. FCP begins progressive manning (initially Ft. Lupton Police or Sheriff's Office, followed by PSC personnel, DODES, Health Dept., Governor's Office or Health Dept. PR REPR.)
0915	6. Decision is made at EOC to activate the Early Warning Alert System (NOAA Weather Radio).

0920	7. Decision is made at EOC to activate the EBS System. (Notice to KOA and KFKA is given but they may or may not elect to use it.)
0925	Noble gas at EAB reads 55 mrem/hr.
1020	8. SEOC manned with sufficient state agency representatives to be operational.
1025	Noble gas at EAB reads 800 mrem/hr.
1030	1. Site emergency declared by the plant and depressurization of the reactor vessel is begun.
1035	2. FCP fully operational
1050	3. EOC - Public Relations Media Coordinator provides media briefing.
1055	Noble gas at EAB reads 300 mrem/hr.
1100	4. FCP - Public Relations Media Coordinator provides media briefing.
1105	5. Police Chief in Platteville reports to FCP that he is ready to begin evacuation, wants to know when he should begin.
1105	6. Off-site monitoring begins.
1115	7. Inquiry from Ft. Lupton Fire Chief as to whether he should get ready for decontamination or not.
1125	Noble gas at EAB reads 50 mrem/hr.
1130	8. Inquiry from dairy as to whether milk is marketable.
1145	9. Truck farm northwest of Greeley wants to know what effect this has on his crops - he grows onions.
1155	Noble gas at EAB reads 10 mrem/hr.
1200	10. Farmer three miles south of plant wants transportation furnished to transport his migrant laborers to Denver for deportation.
1215	11. Citizen in Greeley wants a NOAA Weather Radio Receiver furnished him.

1225 Noble gas at EAB reads background.

1230 12. Reporter from Longmont Times wants an interview with the person in charge of the FCP.

1245 (To FCP)
Inquiry from citizen - what's going on at Ft. St. Vrain - I hear there is a core melt-down-call me at XXX-XXXX.
(Give answer to umpire).

1300 Message from CSU RAD Team Leader concerning exposure of emergency workers.

1315 Someone came by here a few minutes ago and took a milk sample from the milking we just finished. When will we know if the milk is O.K.? Who would know this? Where can we call them?

1330 Depressurization complete.

1345 I just received a call from the UP in New York. He says they have a confirmed report the Ft. St. Vrain is on the verge of melt-down-what reply is given to him? (Give it to umpire).

1400 Inquiry from citizen near Gilcrest. Is it O.K. to use my well water for cooking?

1415 I live just south of Ft. Lupton, and I've got a "cutie pie" and its up to one "RAD" per hour. You are going to get sued for letting all of these people get sick. If I don't hear from you in 15 minutes I'm going to get the hell out of here and tell all my neighbors to leave too. My phone number is XXX-XXXX.

• 1440 Cloud passage complete and field measurements reach background at all locations. Problem terminated.

FSV RADIOLOGICAL EMERGENCY PREPAREDNESS ANNUAL EXERCISE

FOSAVEX 82-Narrative Summary

The exercise will be based upon a non-isolable leak in a reheat section on loop 2. This initiating event, when the determination is made that the leak is "non-isolable", would result in classification as a SITE AREA EMERGENCY, as described in Table 4.1-3, item 2, of the Fort St. Vrain RERP. The initial conditions at the time the leak occurs will be routine operation at 70% reactor power. The determination that the leak is "non-isolable" will result from evaluation of a leakage path past valve HV-Z2132 to the main condenser. This valve will have been identified as leaking from alarm I-13A,5-2; LOOP 2 RHT STM TO CONDENSER VALVE LEAK. This alarm will be designated as "on" in a list of activated alarms given to control room operators prior to the onset of the initiating event.

The flow of exercise events is intended to be such that the initiating event will be the detection of a small amount of activity in secondary coolant at the Steam Jet Air Ejector. Approximately 10 minutes later, Reactor Building Ventilation radioactivity levels will increase, indicating offsite release. At this time, it is anticipated that personnel will be summoned to their emergency stations by the plant radiological alarm, and that a declaration of a NOTIFICATION OF UNUSUAL EVENT emergency class will follow shortly thereafter. At t = 30 minutes, the west reactor operator will be informed that the indication for Loop 1 Hot Reheat radiation monitor has begun to move upscale, and is currently reading approximately 200 cpm. The Loop 2 Hot Reheat radiation monitor is reading background (this monitor, under routine conditions, is set to monitor the steam generator interspace on loop 2, and, until monitoring is switched to the loop 2 Hot Reheat Header, will read background). At t = 40 minutes, the Reactor Building Ventilation monitor alarms on both RT-7324 1 & 2. The offsite release calculations will indicate that the event has reached the magnitude of an ALERT emergency classification, as the effluent release rate for noble gases is somewhat greater than 10 times the Technical Specification release rate limits. Release rates will rise only slightly over the next 45 minutes, until, at t = 85 minutes, the situation begins to deteriorate rapidly.

At t = 85 minutes elapsed time from the initiating event, the indications on the Steam Jet Air Ejector radiation monitor will take a rapid rise. The rate of increase on the Loop 1 Hot Reheat radiation monitor will not be appreciable. If the operator switches the loop 2 reheat monitor to monitor the Hot Reheat Header from the loop 2 Steam Generator interspace, this monitor will indicate upscale, with about a 10 minute lag behind the Steam Jet Air Ejector monitor (otherwise, the monitor will indicate background whenever it is monitoring the Steam Generator interspace). The offsite radiological release rate will increase somewhat at this time also. It is anticipated, that with indications of a large primary to secondary leak occuring, the Control Room will make the decision to shutdown the affected loop, if they have not already done so, based upon previous indications. If the operator shuts down loop 1, based upon the loop 1 Hot Reheat Header radiation monitor leakage, no appreciable change in radiation leakage or effluent rates will be noted. If the operator selects loop 2 for isolation based upon that loop's radiation indications, simultaneously with the loop shutdown, radiation readings will take a rapid swing upward again. Subsequent investigations of the leakage path will eventually lead to the conclusion that the leak is non-isolable due to the leakage past HV-22132 into the condenser. This determination should result in the declaration of a SITE AREA EMERGENCY. Shortly thereafter, a depressurization of the PCRV will begin. The depressurization will last for approximately 3 hours, with a steadily decreasing offsite radiological release rate continuing over the entire period. After the depressurization of the PCRV is completed, the radiation readings will return to normal levels, and the termination of the exercise will be declared.

Planned Sequence of Events for FOSAVEX 82 Scenario:

At approximately time t = -10 minutes, the operators in the control room will be given a list of alarms that are to be presumed to be up on the various annunciator panel windows. This list will include alarm I-13A,5-8; LOOP 2 RHT STM TO CONDENSER LEAK. There will be a sufficient number of alarms listed on this alarm sheet for systems that are both related and unrelated to the exercise scenario that it will not be readily apparent to operators prior to the onset of the exercise initiation that this particular alarm will serve to identify the leakage path.

At time t = 0 minutes, the following window on the annunciator panels will come on;

I-05B;5-6 — AIR EJECTOR ACTIVITY HIGH (RAH-31193)

At the time this alarm window comes up, RI-31193 on I-05 is reading approximately 600 cpm.

At time t = 10 minutes, the operator is informed that the indication on RT-7324,1 is currently reading upscale at approximately 10K cpm, and that RT-7324,2 is currently reading approximately 300 cpm. The indications for RT-7325, 1 & 2 and RT-73437, 1 & 2 are remaining at background.

During the the time span from t = 10 minutes to approximately t = 30 minutes, the activity indications from RT-31193, and RT-7324, 1 & 2 will increase at a very gradual rate, until at t = 30 minutes, the operator is informed that the loop 1 Hot Reheat Header Monitor has begun to rise slightly. At that time, the following radiation values are noted;

RT-31193	reading	2.00E+03 cpm;
RT-2263	reading	2.00E+02 cpm;
RT-2264	reading	background, (4.00E+02 cpm, if on HRH);
RT-7324,1	reading	3.00E+04 cpm;
RT-7324,2	reading	1.50E+03 cpm;
RT-73437,1	reading	3.50E+02 cpm.
RT-73437,2	reading	background;

At t = 40 minutes, the Reactor Building Ventilation noble gas monitors (RT-7324 1 & 2) alarm with the following indications noted on other radiation detectors;

RT-31193	reading	2.00E+03 cpm;
RT-2263	reading	2.00E+02 cpm;
RT-2264	reading	background, (1.50E+03 cpm, if on HRH);
RT-7324,1	reading	1.55E+05 cpm;
RT-7324,2	reading	4.35E+04 cpm;
RT-73437,1	reading	3.50E+02 cpm.
RT-73437,2	reading	7.00E+02 cpm;

Other radiological monitors remain at, or near, their background values.

Sometime after time t = 85 minutes, the radiation readings on the various effluent and radiation process monitors will begin to increase again to the following values;

RT-31193 reading 3.00E+03 cpm;
RT-2263 reading 3.00E+02 cpm;
RT-2264 reading background, (2.00E-03 cpm, if on HRH);
RT-7324,1 reading offscale high;
RT-7324,2 reading 6.25E+05 cpm;
RT-73437,1 reading 9.20E+03 cpm.
RT-73437,2 reading 1.00E+03 cpm;

If the decision is made to shutdown loop 1, instead of the leaking loop 2, no significant change in radiation readings on the radiation effluent or radiation process effluent monitors will be noted. Sometime after loop 2 shutdown occurs, resulting in vastly increased radiation leakage rates, it will be determined that the leak is non-isolable. At that point, a SITE AREA EMERGENCY emergency classification will be declared. At that point in time, it would be determined that the best way to terminate the release is to depressurize the PCRV. From the time that decision is made, the exercise will last for approximately three more hours, as radiation levels begin to drop to background values. During the depressurization, it is anticipated that field teams will be assessing offsite radiological consequences.

Once radiation levels have decreased to background, and the PCRV has been depressurized, the exercise will be declared terminated.

PARTICIPANT QUESTIONNAIRE

This questionnaire is designed to help determine the preparedness of your community, agency, and/or department for radiological emergency response, as well as to improve future exercise. Your opinions will be most helpful. Please complete the questionnaire at the end of the exercise and return it to a FEMA observer. While answering the questions, please be candid. Indicate any deficiencies you feel exist, using space provided between items for your comments.

EXERCISE FSV DATE June 3, 1982

YOUR NAME DAN R. McNEILS

YOUR POSITION ASST. VICE PRESIDENT, GOVERNMENTAL AFFAIRS PSCo

LOCATION SEOC.

1. EXERCISE PREPARATIONS

a. Did you review your emergency responsibilities before the exercise?	YES ✓	NO ___
b. Were you aware (in advance) of the times that key stimulated emergency events were scheduled to occur?	YES ___	NO ✓
c. In your opinion, was the scenario realistic?	YES ✓	NO ___
d. Did the exercise scenario adequately test your agency's emergency response system?	YES ✓	NO ___
e. Did the exercise adequately test your own assigned responsibilities?	YES ✓	NO ___
f. Do you have enough knowledge to effectively carry out your radiological response assignment? (If not, describe any further training needed below).	YES ✓	NO ___

2. PLANS AND RESOURCE MATERIALS

a. Did you participate in developing current Radiological Emergency Response Plan (RERP)?	YES ✓	NO ___
b. Are you satisfied with your current RERP?	YES ✓	NO ___
c. Did you have access to a copy of the RERP during the exercise?	YES ✓	NO ___
d. Are you satisfied with your materials (e.g., maps, population data, list of shelters, traffic plans, etc.)?	YES ✓	NO ___

ATTACHMEN 9

3. EMERGENCY FACILITIES, EQUIPMENT, AND SUPPLIES

a. Was your Emergency Operations Center (EOC) an adequate facility for conducting a radiological emergency response? YES ✓ NO ___

b. Were communications systems between your facility and other locations adequate? YES ___ NO ✓
Need a 2nd phone

c. Were the internal communications in your EOC (message handling, maps, status boards, etc.) adequate? YES ✓ NO ___

d. If applicable at your location, were the evacuation assembly areas (reception centers, etc.) adequate? NA YES ___ NO ___

e. If applicable at your location, were supplies for evacuation (e.g., cots, blankets, transportation, etc.) available? NA YES ___ NO ___

f. Is sufficient operational radiological monitoring equipment available where needed? NA YES ___ NO ___

4. INTER-AGENCY COORDINATION AND SUPPORT

a. Did you have adequate access to your counterparts at other locations? YES ✓ NO ___

b. Were needed information and decisions from other locations reported to you promptly? YES ✓ NO ___

c. Did you receive or have enough information upon which to base your decisions? YES ✓ NO ___

d. Did your operation receive adequate radiological data from the Utility, Local, State, and/or Federal Agencies? YES ✓ NO ___

5. COMMUNICATION WITH PUBLIC

a. Were you asked to provide information to a Public Information Officer? YES ✓ NO ___

b. Were TV or radio receivers available at your location to locations adequate? YES ✓ NO ___

c. Did you have access to Public Information releases from other locations? YES ___ NO ✓

6. OVERALL RATINGS

Please rate on the scales below by circling the appropriate number.

a. Indicate the benefit of the exercise to your jurisdiction or agency in terms of:

(1) Training: 1 POOR 2 3 (4) 5 GOOD

(2) Testing: 1 POOR 2 3 4 (5 GOOD)

b. Indicate your confidence in your organization's capability to execute radiological emergency response plans to protect the public:

1 LOW CONFIDENCE 2 3 (4) 5 HIGH CONFIDENCE

7. REMARKS: (Please use this space, and continue on the back if necessary, to record anything you wish to add about the exercise. Include problems identified, major or minor, which are obstacles to achieving exercise or operational objectives. Suggestions to rectify problems would be helpful.)

Thank you for your assistance. Please return the completed questionnaire to _____ by the end of the exercise.

Observers Name

PARTICIPANT QUESTIONNAIRE

This questionnaire is designed to help determine the preparedness of your community, agency, and/or department for radiological emergency response, as well as to improve future exercises. Your opinions will be most helpful. Please complete the questionnaire at the end of the exercise and return it to a FEMA observer. While answering the questions, please be candid. Indicate any deficiencies you feel exist, using space provided between items for your comments.

EXERCISE FOSAVEX 82 DATE 6-3-82

YOUR NAME Keith Schlager

YOUR POSITION Rad. Consultant — PSC

LOCATION SEOC

1. EXERCISE PREPARATIONS

a. Did you review your emergency responsibilities before the exercise? YES ✓ NO ___

b. Were you aware (in advance) of the times that key simulated emergency events were scheduled to occur? YES ✓ NO ___

c. In your opinion, was the scenario realistic? YES ___ NO ✓

d. Did the exercise scenario adequately test your agency's emergency response system? YES ✓ NO ___

e. Did the exercise adequately test your own assigned responsibilities? YES ✓ NO ___

f. Do you have enough knowledge to effectively carry out your radiological response assignment? (If not, describe any further training needed below). YES ✓ NO ___

2. PLANS AND RESOURCE MATERIALS

a. Did you participate in developing current Radiological Emergency Response Plan (RERP)? YES ___ NO ✓

b. Are you satisfied with your current RERP? YES ✓ NO ___

c. Did you have access to a copy of the RERP during the exercise? YES ✓ NO ___

d. Are you satisfied with your materials (e.g., maps, population data, list of shelters, traffic plans, etc.)? YES ✓ NO ___

3. EMERGENCY FACILITIES, EQUIPMENT, AND SUPPLIES

a. Was your Emergency Operations Center (EOC) an adequate facility for conducting a radiological emergency response? YES ___ NO ✓
Should have 2 phone extensions for PSC at EOC

b. Were communications systems between your facility and other locations adequate? YES ___ NO ✓
Had trouble getting preassigned line to FCP

c. Were the internal communications in your EOC (message handling, maps, status boards, etc.) adequate? YES ✓ NO ___

d. If applicable at your location, were the evacuation assembly areas (reception centers, etc.) adequate? YES ___ NO ___ NA

e. If applicable at your location, were supplies for evacuation (e.g., cots, blankets, transportation, etc.) available? YES ___ NO ___ NA

f. Is sufficient operational radiological monitoring equipment available where needed? YES ___ NO ___ NA

4. INTER-AGENCY COORDINATION AND SUPPORT

a. Did you have adequate access to your counterparts at other locations? YES ✓ NO ___

b. Were needed information and decisions from other locations reported to you promptly? YES ✓ NO ___

c. Did you receive or have enough information upon which to base your decisions? YES ✓ NO ___

d. Did your operation receive adequate radiological data from the Utility, Local, State, and/or Federal Agencies? YES ✓ NO ___

5. COMMUNICATION WITH PUBLIC

a. Were you asked to provide information to a Public Information Officer? YES ✓ NO ___

b. Were TV or radio receivers available at your location to locations adequate? YES ___ NO ?

c. Did you have access to Public Information releases from other locations? YES ___ NO ✓

6. OVERALL RATINGS

Please rate on the scales below by circling the appropriate number.

a. Indicate the benefit of the exercise to your jurisdiction or agency in terms of:

(1) Training: 1 POOR 2 3 (4) 5 GOOD

(2) Testing: 1 POOR 2 (3) 4 5 GOOD

b. Indicate your confidence in your organization's capability to execute radiological emergency response plans to protect the public:

1 LOW CONFIDENCE 2 3 4 (5) HIGH CONFIDENCE

7. REMARKS: (Please use this space, and continue on the back if necessary, to record anything you wish to add about the exercise. Include problems identified, major or minor, which are obstacles to achieving exercise or operational objectives. Suggestions to rectify problems would be helpful.)

NOAA did not properly activate the Early Warning System when first directed by DODES.

Thank you for your assistance. Please return the completed questionnaire to _____ by the end of the exercise.

Observers Name

PARTICIPANT QUESTIONNAIRE

This questionnaire is designed to help determine the preparedness of your community, agency, and/or department for radiological emergency response, as well as to improve future exercise. Your opinions will be most helpful. Please complete the questionnaire at the end of the exercise and return it to a FEMA observer. While answering the questions, please be candid. Indicate any deficiencies you feel exist, using space provided between items for your comments.

EXERCISE [illegible] DATE [illegible]

YOUR NAME [illegible]

YOUR POSITION [illegible]

LOCATION [illegible]

1. EXERCISE PREPARATIONS

a. Did you review your emergency responsibilities before the exercise? YES ✓ NO ____

b. Were you aware (in advance) of the times that key stimulated emergency events were scheduled to occur? YES ✓ NO ____

c. In your opinion, was the scenario realistic? YES ____ NO ____

d. Did the exercise scenario adequately test your agency's emergency response system? YES ____ NO ____

e. Did the exercise adequately test your own assigned responsibilities? YES ✓ NO ____

f. Do you have enough knowledge to effectively carry out your radiological response assignment? (If not, describe any further training needed below). YES ✓ NO ____

2. PLANS AND RESOURCE MATERIALS

a. Did you participate in developing current Radiological Emergency Response Plan (RERP)? YES ✓ NO ____

b. Are you satisfied with your current RERP? YES ____ NO ____

c. Did you have access to a copy of the RERP during the exercise? YES ____ NO ____

d. Are you satisfied with your materials (e.g., maps, population data, list of shelters, traffic plans, etc.)? YES ✓ NO ____

3. EMERGENCY FACILITIES, EQUIPMENT, AND SUPPLIES

a. Was your Emergency Operations Center (EOC) an adequate facility for conducting a radiological emergency response? YES____ NO____

b. Were communications systems between your facility and other locations adequate? YES____ NO____

c. Were the internal communications in your EOC (message handling, maps, status boards, etc.) adequate? YES____ NO____

d. If applicable at your location, were the evacuation assembly areas (reception centers, etc.) adequate? YES____ NO____

e. If applicable at your location, were supplies for evacuation (e.g., cots, blankets, transportation, etc.) available? YES____ NO____

f. Is sufficient operational radiological monitoring equipment available where needed? YES____ NO____

4. INTER-AGENCY COORDINATION AND SUPPORT

a. Did you have adequate access to your counterparts at other locations? YES____ NO____

b. Were needed information and decisions from other locations reported to you promptly? YES____ NO____

c. Did you receive or have enough information upon which to base your decisions? YES____ NO____

d. Did your operation receive adequate radiological data from the Utility, Local, State, and/or Federal Agencies? YES____ NO____

5. COMMUNICATION WITH PUBLIC

a. Were you asked to provide information to a Public Information Officer? YES____ NO____

b. Were TV or radio receivers available at your location to locations adequate? YES____ NO____

c. Did you have access to Public Information releases from other locations? YES____ NO____

6. OVERALL RATINGS

Please rate on the scales below by circling the appropriate number.

a. Indicate the benefit of the exercise to your jurisdiction or agency in terms of:

(1) Training: 1 POOR 2 3 4 5 GOOD

(2) Testing: 1 POOR 2 3 4 5 GOOD

b. Indicate your confidence in your organization's capability to execute radiological emergency response plans to protect the public:

1 LOW CONFIDENCE 2 3 4 5 HIGH CONFIDENCE

7. REMARKS: (Please use this space, and continue on the back if necessary, to record anything you wish to add about the exercise. Include problems identified, major or minor, which are obstacles to achieving exercise or operational objectives. Suggestions to rectify problems would be helpful.)

Thank you for your assistance. Please return the completed questionnaire to _____ by the end of the exercise.

Observers Name

PARTICIPANT QUESTIONNAIRE

This questionnaire is designed to help determine the preparedness of your community, agency, and/or department for radiological emergency response, as well as to improve future exercise. Your opinions will be most helpful. Please complete the questionnaire at the end of the exercise and return it to a FEMA observer. While answering the questions, please be candid. Indicate any deficiencies you feel exist, using space provided between items for your comments.

EXERCISE Ft. St. Vrain Exercise 82 DATE 3 June 82

YOUR NAME Tom Schaber

YOUR POSITION Stand-in for Maj. Rogers (Liaison officer)

LOCATION EOC (Camp George West)

1. EXERCISE PREPARATIONS

a. Did you review your emergency responsibilities before the exercise? YES X NO ____

b. Were you aware (in advance) of the times that key stimulated emergency events were scheduled to occur? YES ____ NO X

c. In your opinion, was the scenario realistic? YES ____ NO ____

d. Did the exercise scenario adequately test your agency's emergency response system? YES X NO ____

e. Did the exercise adequately test your own assigned responsibilities? YES ____ NO X

f. Do you have enough knowledge to effectively carry out your radiological response assignment? (If not, describe any further training needed below). YES X NO ____

2. PLANS AND RESOURCE MATERIALS

a. Did you participate in developing current Radiological Emergency Response Plan (RERP)? YES ____ NO X

b. Are you satisfied with your current RERP? YES ____ NO X

c. Did you have access to a copy of the RERP during the exercise? YES X NO ____

d. Are you satisfied with your materials (e.g., maps, population data, list of shelters, traffic plans, etc.)? YES X NO ____

3. EMERGENCY FACILITIES, EQUIPMENT, AND SUPPLIES

a. Was your Emergency Operations Center (EOC) an adequate facility for conducting a radiological emergency response? YES X NO ___

b. Were communications systems between your facility and other locations adequate? YES ___ NO X

c. Were the internal communications in your EOC (message handling, maps, status boards, etc.) adequate? YES X NO ___

d. If applicable at your location, were the evacuation assembly areas (reception centers, etc.) adequate? YES ___ NO ___

e. If applicable at your location, were supplies for evacuation (e.g., cots, blankets, transportation, etc.) available? YES ___ NO ___

f. Is sufficient operational radiological monitoring equipment available where needed? YES ___ NO ___

4. INTER-AGENCY COORDINATION AND SUPPORT

a. Did you have adequate access to your counterparts at other locations? YES ___ NO ___

b. Were needed information and decisions from other locations reported to you promptly? YES ___ NO ___

c. Did you receive or have enough information upon which to base your decisions? YES ___ NO ___

d. Did your operation receive adequate radiological data from the Utility, Local, State, and/or Federal Agencies? YES ___ NO ___

5. COMMUNICATION WITH PUBLIC

a. Were you asked to provide information to a Public Information Officer? YES ___ NO X

b. Were TV or radio receivers available at your location to locations adequate? YES ___ NO X

c. Did you have access to Public Information releases from other locations? YES ___ NO X

6. OVERALL RATINGS

Please rate on the scales below by circling the appropriate number.

a. Indicate the benefit of the exercise to your jurisdiction or agency in terms of:

(1) Training: 1 POOR 2 (3) 4 5 GOOD

(2) Testing: 1 POOR 2 (3) 4 5 GOOD

b. Indicate your confidence in your organization's capability to execute radiological emergency response plans to protect the public:

1 LOW CONFIDENCE 2 3 (4) 5 HIGH CONFIDENCE

7. REMARKS: (Please use this space, and continue on the back if necessary, to record anything you wish to add about the exercise. Include problems identified, major or minor, which are obstacles to achieving exercise or operational objectives. Suggestions to rectify problems would be helpful.)

Problem: It's hard to tell the "Chiefs" from the "Indians". Recommend different colored tags to ID decisionmakers from each agency as opposed to those in watch or advisory status.

Thank you for your assistance. Please return the completed questionnaire to

_____ by the end of the exercise.

Observers Name

~~273-EII~~
399-0550

PARTICIPANT QUESTIONNAIRE

This questionnaire is designed to help determine the preparedness of your community, agency, and/or department for radiological emergency response, as well as to improve future exercises. Your opinions will be most helpful. Please complete the questionnaire at the end of the exercise and return it to a FEMA observer. While answering the questions, please be candid. Indicate any deficiencies you feel exist, using space provided between items for your comments.

EXERCISE Fort St. Vrain Nuclear Exer DATE 3 June 1987

YOUR NAME Stan Bogren - Tom Mull

YOUR POSITION Governmental Liaison

LOCATION

1. EXERCISE PREPARATIONS

a. Did you review your emergency responsibilities before the exercise? YES ✓ NO

b. Were you aware (in advance) of the times that key stimulated emergency events were scheduled to occur? YES ✓ NO

c. In your opinion, was the scenario realistic? YES ✓ NO

d. Did the exercise scenario adequately test your agency's emergency response system? YES ✓ NO

e. Did the exercise adequately test your own assigned responsibilities? YES ✓ NO

f. Do you have enough knowledge to effectively carry out your radiological response assignment? (If not, describe any further training needed below). YES ✓ NO

2. PLANS AND RESOURCE MATERIALS

a. Did you participate in developing current Radiological Emergency Response Plan (RERP)? YES NO ✓

b. Are you satisfied with your current RERP? YES ✓ NO

c. Did you have access to a copy of the RERP during the exercise? YES ✓ NO

d. Are you satisfied with your materials (e.g., maps, population data, list of shelters, traffic plans, etc.)? YES ✓ NO

3. EMERGENCY FACILITIES, EQUIPMENT, AND SUPPLIES

a. Was your Emergency Operations Center (EOC) an adequate facility for conducting a radiological emergency response? YES ✓ NO ___

b. Were communications systems between your facility and other locations adequate? YES ✓ NO ___

c. Were the internal communications in your EOC (message handling, maps, status boards, etc.) adequate? YES ✓ NO ___

d. If applicable at your location, were the evacuation assembly areas (reception centers, etc.) adequate? YES ✓ NO ___

e. If applicable at your location, were supplies for evacuation (e.g., cots, blankets, transportation, etc.) available? YES ✓ NO ___

f. Is sufficient operational radiological monitoring equipment available where needed? YES ✓ NO ___

4. INTER-AGENCY COORDINATION AND SUPPORT

a. Did you have adequate access to your counterparts at other locations? YES ✓ NO ___

b. Were needed information and decisions from other locations reported to you promptly? YES ✓ NO ___

c. Did you receive or have enough information upon which to base your decisions? YES ✓ NO ___

d. Did your operation receive adequate radiological data from the Utility, Local, State, and/or Federal Agencies? YES ✓ NO ___

5. COMMUNICATION WITH PUBLIC

a. Were you asked to provide information to a Public Information Officer? YES ___ NO ✓

b. Were TV or radio receivers available at your location to locations adequate? YES ___ NO ___

c. Did you have access to Public Information releases from other locations? YES ___ NO ___

6. OVERALL RATINGS

Please rate on the scales below by circling the appropriate number.

a. Indicate the benefit of the exercise to your jurisdiction or agency in terms of:

(1) Training: 1 POOR 2 3 4 (5) GOOD

(2) Testing: 1 POOR 2 3 4 (5) GOOD

b. Indicate your confidence in your organization's capability to execute radiological emergency response plans to protect the public:

1 LOW CONFIDENCE 2 3 4 (5) HIGH CONFIDENCE

7. REMARKS: (Please use this space, and continue on the back if necessary, to record anything you wish to add about the exercise. Include problems identified, major or minor, which are obstacles to achieving exercise or operational objectives. Suggestions to rectify problems would be helpful.)

Thank you for your assistance. Please return the completed questionnaire to Tom Mull by the end of the exercise.

Tom Mull
Observers Name

Stan Bugren

PARTICIPANT QUESTIONNAIRE

This questionnaire is designed to help determine the preparedness of your community, agency, and/or department for radiological emergency response, as well as to improve future exercises. Your opinions will be most helpful. Please complete the questionnaire at the end of the exercise and return it to a FEMA observer. While answering the questions, please be candid. Indicate any deficiencies you feel exist, using space provided between items for your comments.

EXERCISE FT ST. VRAIN DATE JUNE 3, 1982

YOUR NAME JOHN CALLAHAN

YOUR POSITION CAPTAIN - COLORADO STATE PATROL

LOCATION EOC CAMP GEORGE WEST

1. EXERCISE PREPARATIONS

a. Did you review your emergency responsibilities before the exercise? YES X NO ___

b. Were you aware (in advance) of the times that key simulated emergency events were scheduled to occur? YES ___ NO X

c. In your opinion, was the scenario realistic? YES X NO ___

d. Did the exercise scenario adequately test your agency's emergency response system? YES ___ NO X

e. Did the exercise adequately test your own assigned responsibilities? YES ___ NO X

f. Do you have enough knowledge to effectively carry out your radiological response assignment? (If not, describe any further training needed below). YES X NO ___

2. PLANS AND RESOURCE MATERIALS

a. Did you participate in developing current Radiological Emergency Response Plan (RERP)? YES ___ NO X

b. Are you satisfied with your current RERP? YES X NO ___

c. Did you have access to a copy of the RERP during the exercise? YES X NO ___

d. Are you satisfied with your materials (e.g., maps, population data, list of shelters, traffic plans, etc.)? YES X NO ___

3. EMERGENCY FACILITIES, EQUIPMENT, AND SUPPLIES

a. Was your Emergency Operations Center (EOC) an adequate facility for conducting a radiological emergency response? YES X NO ___

b. Were communications systems between your facility and other locations adequate? YES X NO ___

c. Were the internal communications in your EOC (message handling, maps, status boards, etc.) adequate? YES X NO ___

d. If applicable at your location, were the evacuation assembly areas (reception centers, etc.) adequate? YES N/A NO ___

e. If applicable at your location, were supplies for evacuation (e.g., cots, blankets, transportation, etc.) available? YES N/A NO ___

f. Is sufficient operational radiological monitoring equipment available where needed? YES N/A NO ___

4. INTER-AGENCY COORDINATION AND SUPPORT

a. Did you have adequate access to your counterparts at other locations? YES X NO ___

b. Were needed information and decisions from other locations reported to you promptly? YES X NO ___

c. Did you receive or have enough information upon which to base your decisions? YES X NO ___

d. Did your operation receive adequate radiological data from the Utility, Local, State, and/or Federal Agencies? YES X NO ___

5. COMMUNICATION WITH PUBLIC

a. Were you asked to provide information to a Public Information Officer? YES ___ NO X

b. Were TV or radio receivers available at your location to locations adequate? YES ___ NO X

c. Did you have access to Public Information releases from other locations? YES ___ NO X

6. OVERALL RATINGS

Please rate on the scales below by circling the appropriate number.

a. Indicate the benefit of the exercise to your jurisdiction or agency in terms of:

(1) Training: 1 POOR 2 (3) 4 5 GOOD

(2) Testing: 1 POOR 2 (3) 4 5 GOOD

b. Indicate your confidence in your organization's capability to execute radiological emergency response plans to protect the public:

1 LOW CONFIDENCE 2 3 (4) 5 HIGH CONFIDENCE

7. REMARKS: (Please use this space, and continue on the back if necessary, to record anything you wish to add about the exercise. Include problems identified, major or minor, which are obstacles to achieving exercise or operational objectives. Suggestions to rectify problems would be helpful.)

Thank you for your assistance. Please return the completed questionnaire to _____ by the end of the exercise.

Observers Name

PARTICIPANT QUESTIONNAIRE

This questionnaire is designed to help determine the preparedness of your community, agency, and/or department for radiological emergency response, as well as to improve future exercises. Your opinions will be most helpful. Please complete the questionnaire at the end of the exercise and return it to a FEMA observer. While answering the questions, please be candid. Indicate any deficiencies you feel exist, using space provided between items for your comments.

EXERCISE Fort St. Vrain DATE 3 June 82

YOUR NAME Malcolm H. Murray

YOUR POSITION Asst. Atty. Gen.

LOCATION

1. EXERCISE PREPARATIONS

a. Did you review your emergency responsibilities before the exercise?	YES ____	NO ✓
b. Were you aware (in advance) of the times that key stimulated emergency events were scheduled to occur?	YES ✓	NO ____
c. In your opinion, was the scenario realistic?	YES ✓	NO ____
d. Did the exercise scenario adequately test your agency's emergency response system?	YES ✓	NO ____
e. Did the exercise adequately test your own assigned responsibilities?	YES ✓	NO ____
f. Do you have enough knowledge to effectively carry out your radiological response assignment? (If not, describe any further training needed below).	YES ✓	NO ____

2. PLANS AND RESOURCE MATERIALS

a. Did you participate in developing current Radiological Emergency Response Plan (RERP)?	YES ____	NO ✓
b. Are you satisfied with your current RERP?	YES ✓	NO ____
c. Did you have access to a copy of the RERP during the exercise?	YES ✓	NO ____
d. Are you satisfied with your materials (e.g., maps, population data, list of shelters, traffic plans, etc.)?	YES ✓	NO ____

3. EMERGENCY FACILITIES, EQUIPMENT, AND SUPPLIES

a. Was your Emergency Operations Center (EOC) an adequate facility for conducting a radiological emergency response? YES ✓ NO ___

b. Were communications systems between your facility and other locations adequate? YES ✓ NO ___

c. Were the internal communications in your EOC (message handling, maps, status boards, etc.) adequate? YES ✓ NO ___

d. If applicable at your location, were the evacuation assembly areas (reception centers, etc.) adequate? YES ✓ NO ___

e. If applicable at your location, were supplies for evacuation (e.g., cots, blankets, transportation, etc.) available? YES ___ NO ___

f. Is sufficient operational radiological monitoring equipment available where needed? YES ___ NO ___

4. INTER-AGENCY COORDINATION AND SUPPORT

a. Did you have adequate access to your counterparts at other locations? YES ✓ NO ___

b. Were needed information and decisions from other locations reported to you promptly? YES ___ NO ___

c. Did you receive or have enough information upon which to base your decisions? YES ✓ NO ___

d. Did your operation receive adequate radiological data from the Utility, Local, State, and/or Federal Agencies? YES ___ NO ___

5. COMMUNICATION WITH PUBLIC

a. Were you asked to provide information to a Public Information Officer? YES____ NO ✓

b. Were TV or radio receivers available at your location to locations adequate? YES____ NO____

c. Did you have access to Public Information releases from other locations? YES____ NO____

6. OVERALL RATINGS

Please rate on the scales below by circling the appropriate number.

a. Indicate the benefit of the exercise to your jurisdiction or agency in terms of:

(1) Training: 1 POOR 2 3 4 5 GOOD

(2) Testing: 1 POOR 2 3 4 5 GOOD

b. Indicate your confidence in your organization's capability to execute radiological emergency response plans to protect the public:

1 LOW CONFIDENCE 2 3 4 5 HIGH CONFIDENCE

7. REMARKS: (Please use this space, and continue on the back if necessary, to record anything you wish to add about the exercise. Include problems identified, major or minor, which are obstacles to achieving exercise or operational objectives. Suggestions to rectify problems would be helpful.)

Thank you for your assistance. Please return the completed questionnaire to _____ by the end of the exercise.

Observers Name

PARTICIPANT QUESTIONNAIRE

This questionnaire is designed to help determine the preparedness of your community, agency, and/or department for radiological emergency response, as well as to improve future exercises. Your opinions will be most helpful. Please complete the questionnaire at the end of the exercise and return it to a FEMA observer. While answering the questions, please be candid. Indicate any deficiencies you feel exist, using space provided between items for your comments.

EXERCISE Ft St. VRain DATE 6/3/82

YOUR NAME RAY BURKE - STATE RAD.

YOUR POSITION Director Div. of Animal Industry.

LOCATION 1525 Sherman st, Denver, Colo.

1. EXERCISE PREPARATIONS

a. Did you review your emergency responsibilities before the exercise? YES Y NO ___

b. Were you aware (in advance) of the times that key stimulated emergency events were scheduled to occur? YES ___ NO X

c. In your opinion, was the scenario realistic? YES X NO ___

d. Did the exercise scenario adequately test your agency's emergency response system? YES X NO ___

e. Did the exercise adequately test your own assigned responsibilities? YES X NO ___

f. Do you have enough knowledge to effectively carry out your radiological response assignment? (If not, describe any further training needed below). YES X NO ___

2. PLANS AND RESOURCE MATERIALS

a. Did you participate in developing current Radiological Emergency Response Plan (RERP)? YES ___ NO X

b. Are you satisfied with your current RERP? YES X NO ___

c. Did you have access to a copy of the RERP during the exercise? YES ___ NO ___

d. Are you satisfied with your materials (e.g., maps, population data, list of shelters, traffic plans, etc.)? YES Y NO ___

3. EMERGENCY FACILITIES, EQUIPMENT, AND SUPPLIES

a. Was your Emergency Operations Center (EOC) an adequate facility for conducting a radiological emergency response? YES X NO___

b. Were communications systems between your facility and other locations adequate? YES X NO___

c. Were the internal communications in your EOC (message handling, maps, status boards, etc.) adequate? YES X NO___

d. If applicable at your location, were the evacuation assembly areas (reception centers, etc.) adequate? YES___ NO___

e. If applicable at your location, were supplies for evacuation (e.g., cots, blankets, transportation, etc.) available? YES___ NO___

f. Is sufficient operational radiological monitoring equipment available where needed? YES___ NO___

4. INTER-AGENCY COORDINATION AND SUPPORT

a. Did you have adequate access to your counterparts at other locations? YES X NO___

b. Were needed information and decisions from other locations reported to you promptly? YES X NO___

c. Did you receive or have enough information upon which to base your decisions? YES X NO___

d. Did your operation receive adequate radiological data from the Utility, Local, State, and/or Federal Agencies? YES___ NO___

5. COMMUNICATION WITH PUBLIC

a. Were you asked to provide information to a Public Information Officer? YES____ NO X

b. Were TV or radio receivers available at your location to locations adequate? YES____ NO____

c. Did you have access to Public Information releases from other locations? YES____ NO____

6. OVERALL RATINGS

Please rate on the scales below by circling the appropriate number.

a. Indicate the benefit of the exercise to your jurisdiction or agency in terms of:

(1) Training: 1 POOR 2 3 (4) 5 GOOD

(2) Testing: 1 POOR 2 (3) 4 5 GOOD

b. Indicate your confidence in your organization's capability to execute radiological emergency response plans to protect the public:

1 LOW CONFIDENCE 2 3 (4) 5 HIGH CONFIDENCE

7. REMARKS: (Please use this space, and continue on the back if necessary, to record anything you wish to add about the exercise. Include problems identified, major or minor, which are obstacles to achieving exercise or operational objectives. Suggestions to rectify problems would be helpful.)

Something like a red lite and/or bizzer to alert us on significant changes (such as changes in wind direction + velocity), since we are not sitting on a stool to the forward board + cannot note changes with relative ease.

Thank you for your assistance. Please return the completed questionnaire to _____ by the end of the exercise.

Observers Name

PARTICIPANT QUESTIONNAIRE

This questionnaire is designed to help determine the preparedness of your community, agency, and/or department for radiological emergency response, as well as to improve future exercises. Your opinions will be most helpful. Please complete the questionnaire at the end of the exercise and return it to a FEMA observer. While answering the questions, please be candid. Indicate any deficiencies you feel exist, using space provided between items for your comments.

EXERCISE Fort St Vrain R.E.R.P DATE 6/3/82

YOUR NAME Mark Severts

YOUR POSITION Media Relations Representative

LOCATION Public Service Co.

1. EXERCISE PREPARATIONS

a. Did you review your emergency responsibilities before the exercise? YES ____ NO X

b. Were you aware (in advance) of the times that key simulated emergency events were scheduled to occur? YES X NO ____

c. In your opinion, was the scenario realistic? YES X NO ____

d. Did the exercise scenario adequately test your agency's emergency response system? YES X NO ____

e. Did the exercise adequately test your own assigned responsibilities? YES X NO ____

f. Do you have enough knowledge to effectively carry out your radiological response assignment? (If not, describe any further training needed below). YES X NO ____

2. PLANS AND RESOURCE MATERIALS

a. Did you participate in developing current Radiological Emergency Response Plan (RERP)? YES ____ NO X

b. Are you satisfied with your current RERP? YES X NO ____

c. Did you have access to a copy of the RERP during the exercise? YES X NO ____

d. Are you satisfied with your materials (e.g., maps, population data, list of shelters, traffic plans, etc.)? YES X NO ____

3. EMERGENCY FACILITIES, EQUIPMENT, AND SUPPLIES

a. Was your Emergency Operations Center (EOC) an adequate facility for conducting a radiological emergency response? YES X NO ___

b. Were communications systems between your facility and other locations adequate? YES ___ NO X

Need more phones in P.I.O.

c. Were the internal communications in your EOC (message handling, maps, status boards, etc.) adequate? YES X NO ___

d. If applicable at your location, were the evacuation assembly areas (reception centers, etc.) adequate? YES X NO ___

e. If applicable at your location, were supplies for evacuation (e.g., cots, blankets, transportation, etc.) available? YES X NO ___

f. Is sufficient operational radiological monitoring equipment available where needed? YES X NO ___

4. INTER-AGENCY COORDINATION AND SUPPORT

a. Did you have adequate access to your counterparts at other locations? YES X NO ___

b. Were needed information and decisions from other locations reported to you promptly? YES X NO ___

c. Did you receive or have enough information upon which to base your decisions? YES X NO ___

d. Did your operation receive adequate radiological data from the Utility, Local, State, and/or Federal Agencies? YES X NO ___

5. COMMUNICATION WITH PUBLIC

a. Were you asked to provide information to a Public Information Officer? YES____ NO X

b. Were TV or radio receivers available at your location to locations adequate? YES____ NO____

c. Did you have access to Public Information releases from other locations? YES____ NO____

6. OVERALL RATINGS

Please rate on the scales below by circling the appropriate number.

a. Indicate the benefit of the exercise to your jurisdiction or agency in terms of:

(1) Training: 1 POOR 2 3 4 (5) GOOD

(2) Testing: 1 POOR 2 3 4 (5) GOOD

b. Indicate your confidence in your organization's capability to execute radiological emergency response plans to protect the public:

1 LOW CONFIDENCE 2 3 4 (5) HIGH CONFIDENCE

7. REMARKS: (Please use this space, and continue on the back if necessary, to record anything you wish to add about the exercise. Include problems identified, major or minor, which are obstacles to achieving exercise or operational objectives. Suggestions to rectify problems would be helpful.)

Thank you for your assistance. Please return the completed questionnaire to _____ by the end of the exercise.

Observers Name

PARTICIPANT QUESTIONNAIRE

This questionnaire is designed to help determine the preparedness of your community, agency, and/or department for radiological emergency response, as well as to improve future exercises. Your opinions will be most helpful. Please complete the questionnaire at the end of the exercise and return it to a FEMA observer. While answering the questions, please be candid. Indicate any deficiencies you feel exist, using space provided between items for your comments.

EXERCISE FOSAUEX 82 DATE 6/3/82

YOUR NAME AL HAZLE & TOM LOOBY

YOUR POSITION HEALTH

LOCATION SEOC

1. EXERCISE PREPARATIONS

a. Did you review your emergency responsibilities before the exercise? YES ✓ NO ___

b. Were you aware (in advance) of the times that key stimulated emergency events were scheduled to occur? YES ___ NO ✓

c. In your opinion, was the scenario realistic? YES ✓ NO ___

d. Did the exercise scenario adequately test your agency's emergency response system? YES ✓ NO ___

e. Did the exercise adequately test your own assigned responsibilities? YES ✓ NO ___

f. Do you have enough knowledge to effectively carry out your radiological response assignment? (If not, describe any further training needed below). YES ✓ NO ✓

Need dose projection print-out capability

2. PLANS AND RESOURCE MATERIALS

a. Did you participate in developing current Radiological Emergency Response Plan (RERP)? YES ✓ NO ___

b. Are you satisfied with your current RERP? YES ___ NO ✓

c. Did you have access to a copy of the RERP during the exercise? YES ✓ NO ___

d. Are you satisfied with your materials (e.g., maps, population data, list of shelters, traffic plans, etc.)? YES ✓ NO ___

not all used

3. EMERGENCY FACILITIES, EQUIPMENT, AND SUPPLIES

a. Was your Emergency Operations Center (EOC) an adequate facility for conducting a radiological emergency response? YES ✓ NO ___
AB should be insert & Health

b. Were communications systems between your facility and other locations adequate? re FCP & ECC (CDH) YES ✓ NO ___

c. Were the internal communications in your EOC (message handling, maps, status boards, etc.) adequate? Some problems YES ✓ NO ✓

d. If applicable at your location, were the evacuation assembly areas (reception centers, etc.) adequate? N/A YES ___ NO ___

e. If applicable at your location, were supplies for evacuation (e.g., cots, blankets, transportation, etc.) available? N/A YES ___ NO ___

f. Is sufficient operational radiological monitoring equipment available where needed? N/A YES ___ NO ___

4. INTER-AGENCY COORDINATION AND SUPPORT

a. Did you have adequate access to your counterparts at other locations? not with field teams YES ✓ NO ✓

b. Were needed information and decisions from other locations reported to you promptly? except for field teams YES ✓ NO ✓

c. Did you receive or have enough information upon which to base your decisions? reasonable. YES ✓ NO ___

d. Did your operation receive adequate radiological data from the Utility, Local, State, and/or Federal Agencies? YES ✓ NO ___

5. COMMUNICATION WITH PUBLIC

a. Were you asked to provide information to a Public Information Officer? YES ✓ NO ___

b. Were TV or radio receivers available at your location to locations adequate? YES ___ NO ___ N/A

c. Did you have access to Public Information releases from other locations? YES ___ NO ✓

6. OVERALL RATINGS

Please rate on the scales below by circling the appropriate number.

a. Indicate the benefit of the exercise to your jurisdiction or agency in terms of:

(1) Training: 1 POOR 2 3 4 (5) GOOD

(2) Testing: 1 POOR 2 3 4 (5) GOOD

b. Indicate your confidence in your organization's capability to execute radiological emergency response plans to protect the public:

1 LOW CONFIDENCE 2 3 4 (5) HIGH CONFIDENCE

7. REMARKS: (Please use this space, and continue on the back if necessary, to record anything you wish to add about the exercise. Include problems identified, major or minor, which are obstacles to achieving exercise or operational objectives. Suggestions to rectify problems would be helpful.)

Thank you for your assistance. Please return the completed questionnaire to Carl Hefner by the end of the exercise.

Observers Name

MASTER

MEMORANDUM

Department of Military Affairs
DIVISION OF DISASTER EMERGENCY SERVICES

Richard D. Lamm
Governor

Brig. Gen. John L. France
The Adjutant General

John P. Byrne
Director

TO: AGENCIES IN THE FT. ST. VRAIN STATE RADIOLOGICAL EMERGENCY RESPONSE PLAN.

FROM: WILLIAM S. MARTIN

SUBJECT: FT. ST. VRAIN RERP ANNUAL EXERCISE

DATE: MAY 21, 1982

The Division of Disaster Emergency Services (DODES), together with the Fort St. Vrain Nuclear Power Generation Station of Public Service Company of Colorado, will conduct an exercise of the State Radiological Emergency Response Plan (RERP) for Fort St. Vrain (April 1980) on Thursday, June 3, 1982.

The objectives of the exercise are as follows:

1. Demonstrate that response organizations can alert and notify emergency response personnel.

2. Demonstrate that emergency response facilities (i.e., Technical Support Center, Personnel Control Center, Executive Command Post, Forward Command Post, and the State EOC) can be staffed in a timely fashion.

3. Demonstrate that the telecommunications systems can be manned and operated in a timely manner and that the systems are adequate to handle the anticipated traffic during site emergency conditions.

4. Demonstrate that the incident assessment staff can perform assigned tasks related to assessment and that timely decisions can be made concerning incident category and appropriate response for the resultant category. (Additional emphasis will be placed on field assessment).

5. Demonstrate that implementation procedures have been established for the early warning system (NOAA Weather Radio), METS, and the EBS System.

6. Demonstrate the capability to prepare coordinated public information materials at both the State EOC and the Forward Command Post based on the information available during the course of the exercise.

Attachment 10

7. Demonstrate that plant operations and support personnel respond to the emergency situation utilizing emergency procedures to mitigate the consequences of the incident.

The exercise will be conducted within the hours of 8 a.m. to 5 p.m., but the exact starting time is not being announced. The critique for representatives of the principal participating agencies will be held from 10 a.m. to noon at the Ft. St. Vrain Visitor Center near Platteville, on Friday, June 4, 1982.

All agencies, Federal, State & Local Government, as well as schools & private relief organizations which have emergency roles to play are encouraged to participate in the exercise to the extent that the above objectives will involve them in the exercise play. Also they are encouraged to take this exercise as an opportunity to review their plans, checklists, callup lists and operating procedures to assure readiness for a real incident at Ft. St. Vrain should it occur.

Sincerely,

William S. Martin

William S. Martin
Exercise Controller

WSM:gcc

Attachment 10

Public Service Company of Colorado

16805 WCR 19 1/2, Platteville, Colorado 80651

May 24, 1982
Fort St. Vrain
Unit #1
P-82158

Mr. J. P. Byrne, Director
Department of Military Affairs
Division of Emergency Services
Camp George West
Golden, CO 80401

SUBJECT: FDSAVEX 82

Dear Mr. J. P. Byrne:

I have attached a copy of the guidelines that we will be utilizing to conduct the exercise. These guidelines also establish the critique schedule for 10:00 am. June 4, 1982, at the Visitor's Center.

I believe we have discussed all other facets of this year's exercise at various meetings. I want to express my thanks to you and all the State people as well as the Weld County people for the cooperation received and efforts expended in preparing for the exercise.

Very truly yours,

Don W. Warembourg
Manager, Nuclear Production
Fort St. Vrain Nuclear
Generating Station

DWW/skd

Attachment

cc: Bill Martin
Sheriff Andrews
Paul Alley
Al Hazle

Attachment 10

INTER-DEPARTMENT MEMO - PUBLIC SERVICE COMPANY OF COLORADO

PPC-82-1004

DATE: May 19, 1982

TO: Distribution

FROM: Don W. Warembourg, Manager, Nuclear Production, FSV

ATTN:

SUBJ: RADIOLOGICAL EXERCISE 1982

The next exercise for our radiological response plan has been scheduled for June 3, 1982. As nearly as possible, we plan to begin on site activities for the exercise beginning at 8:00 am. and I would anticipate completion of the exercise by 3:00 pm.

Given the scenario which we have developed and the logistical requirements of plant operations as well as other routine activities, the following guidelines will apply to this year's exercise:

1. Road blocks (those to be established initially by PSC) will not be set up (only simulated). The PCC personnel, however, should determine their capability in terms of people and material to accomplish establishment of road blocks.

2. Deliveries and routine visitations to the plant will be allowed during the exercise so as to minimize impact on operations and schedules of non-company personnel.

3. All personnel will initially participate in the exercise unless their specific duties at the time prevent participation. Any personnel excused from participation must have the approval of plant management prior to 8:00 am. on June 3, except as indicated in Item 5 below.

4. After initial response to emergency stations, personnel accountability etc., all personnel not actually involved in manning the command posts will be told to return to work via announcement over the plant public address system. I anticipate that personnel will be returned to work within 60 to 90 minutes of initiation of the exercise. After this initial period routine plant access and activities can be continued.

5. The Plant Manager, Superintendent of Operations, or Shift Supervisor can excuse any person from participation in the exercise either before or during the exercise if that person is needed to respond to actual plant activities.

6. The Visitor's Center will participate in the initial portion of the exercise in that the center is established to receive personnel from the site. Beyond this condition, the Visitor's Center will not participate in terms of evacuation of visitor's etc.

7. We do not anticipate a great deal of interface with the Executive Command Post (ECP). Therefore, the Director of the ECP may at his discretion reduce the normal complement of the ECP after personnel accountability and initial establishment of the command post and the communications systems.

8. For your general information, I have attached the scope and objectives of the exercise.

9. Following the exercise the critique schedule has been established as follows:

   A. 7:30 am. June 4, 1982 Visitor's Center
      PSC Internal Critique

   B. 10:00 am. June 4, 1982 Visitor's Center
      Combined Critique, State, Local, FEMA, NRC

   C. 1:30 pm. June 4, 1982 Visitor's Center
      NRC Critique, for PSC.

   The Plant Managers, Command Post Directors, and the Clerical people involved with keeping logs should attend the critiques, although any of the Command Post participants may attend as their work schedule might dictate.

Don W. Warembourg

DWW/skd

Dist: All FSV Supervisor's
Directors/Alternates all Command Posts

Attachment 10

St. Vrain radio drill goes awry

By JIM HANCHETT
News Staff

PLATTEVILLE — A test of emergency procedures at the Fort St. Vrain nuclear power plant backfired Thursday when a radio system designed to alert area residents failed because of "human error."

A National Weather Service broadcaster forgot to press the button that activates radios in 1,100 Platteville homes and businesses, said John P. Byrne, director of the state Division of Disaster Emergency Services, which conducts the annual practice.

"It was human error," said Byrne. "There are a lot of red faces at the Weather Service."

"It was an error on my part for not making sure everybody knew what to do," said Maurice Pasti, meteorologist in charge of the National Weather Service's Denver office. "There was a breakdown in communications."

The broadcaster, whom officials refused to identify, read a message at 9 a.m. describing the fake emergency at the Public Service Co. reactor, but few Platteville residents heard it because of the goof, Byrne said.

The message, which included instructions to remain indoors, was repeated at 11:45 a.m. after the activator button had been pushed. The alert system worked correctly then, Byrne said.

Should the system fail during a real emergency, residents would be informed immediately by authorities going door-to-door, said Public Service Co. spokeswoman Marily McAdams.

PSC installed the radios in homes and businesses within a five-mile radius of the plant at the request of the Nuclear Regulatory Commission, McAdams said. This was the first test of the radios, she said.

Other than the alert system, Byrne pronounced the test a success.

In Platteville, a tiny farming community four miles from the plant, many people took little notice of the test.

"It's a lot of bureaucratic baloney," said James Morgan, owner of Morgan's Drug and Liquor Store. "I don't keep my radio plugged in. That plant hasn't killed anybody and it won't. Nobody here worries about it."

Said Postmaster Margaret Davis, "It doesn't bother me that the radio didn't go off when it was supposed to. When the good Lord decides it's my turn to go, I'm going to go, radio or not."

Police Chief Harold Otero said he was concerned when the radio at Town Hall was silent during the 9 a.m. alert. "There's always a possibility something could go wrong there," he said. "We'd want to know as soon as possible."

No one called the power plant to complain, PSC officials said.

The utility had protested the requirement that it install the radios, McAdams said. The unique nature of the helium-cooled Fort St. Vrain plant prevents a serious accident that would require immediate evacuation, she said.

"We felt they weren't necessary," she said. "We feel confident we could contact people through sirens and (by going) door-to-door, although these do provide another measure of serenity and peace of mind."

NRC spokeswoman Clare Miles said the radios are essential "to tell people what is going on. If there is a need to inform people, you have to know there is a means [illegible]

Attachment 11

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
611 RYAN PLAZA DRIVE, SUITE 1000
ARLINGTON, TEXAS 76011

June 11, 1982

N. Paul Alley
RAC Chairman
Federal Emergency Management Agency
Region VIII
Denver Federal Center, Building 710
Denver, Co. 80225

Dear Mr. Alley:

I am enclosing the "Exercrit" form which I completed based on my observations during the Fort St. Vrain radiological emergency response exercise of June 13, 1982.

During the exercise, I contacted approximately 30 farm residences in the northwest portion of the 5-mile emergency planning zone. I also made contact with one state field team and briefly discussed field response and communications problems with the team leader. My comments and ratings on the "Exercrit" reflect these contacts and observations.

In summary, the early warning system (EWS) appears to work well when the resident is present in the home. Message reception, clarity, and amplification were reportedly excellent. However, without the benefit of all EWS survey data collected, I would estimate that as many as 2[illegible]% or more of the residents will not hear the message because they are out of audible range. The farms comprise large areas requiring residents to frequently be outdoors or in structures near to but unattached to the house.

As discussed during the RAC review meeting at your office, I did locate several residents who either had no EWS radio or reported reception problems. These persons were identified in my report to Bob Heggie.

If you have questions concerning the "Exercrit" or need additional information, please contact this office.

Sincerely,

James L. Montgomery

James L. Montgomery
Regional State Liaison Officer

Enclosures:
As Stated

1p. ~~8405020364~~

Attachment 12

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

DATE JUN 9 1982

SUBJECT: FOSAVEX 82 Exercrit and suggestions for FOSAVEX 83

FROM: Paul Wagner, EPA Region VIII Paul Wagner

TO: Paul Alley, RAC Chairman
FEMA VIII

I have enclosed my Exercrit for FOSAVEX 82. For next year's exercise, I suggest more emphasis be placed on the forward areas and less on the EOC. For example, someone should accompany field teams into a controlled area. How adequate is the police control? Does the Highway Patrol know how to check dosimeters, record information, check for contamination? Do they know what to do in the event of finding contamination? How would they handle contaminated accident victims and ambulances at the control point and at the clinic/ hospital? Do the firehouse personnel know how to operate a decon facility? Will decon be done at the firehouse or at the control points? How quickly can the army's mobile decon unit be brought up? What would be done with contaminated water and materials? Does the health department have protective gear for its teams? If there's more than one TCP and a team goes in at one TCP and out at another, how will dose information be maintained? Can the Red Cross organize evacuee reception centers in Greeley and Ft. Lupton on short notice?

I think that the field aspects of the exercises should be given more emphasis in future tests. By next year I am sure we can come up with several more questions on the forward operations.

DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service
Region VIII

Federal Office Building
1961 Stout Street
Denver CO 80294

June 15, 1982

Mr. Paul Alley
RAC Chairman
FEMA REGION VIII
Building 710
Denver Federal Center
Denver, CO 80220

Dear Paul:

The FEMA Region VIII Regional Advisory Committee (RAC) met at your office on May 29, 1982 and identified a need to determine if the public alert system for the Fort St. Vrain Nuclear Power Plant was adequate to meet the public need. I, as the U.S. Public Health Service representative on the RAC, was given the responsibility of conducting a survey to determine the effectiveness of the alert system that was to be tested on June 3, 1982. The Red Cross Advisor to FEMA Region VIII was to provide five (5) Red Cross volunteers, and of course, you had input into the survey form and strategy. The stated purpose of the survey was to: (A) visit as many locations within five (5) miles of the power plant as possible; (B) determine if the location had radio receivers and if so, did they work; (C) ascertain if those people who were at home/business did hear the alert, and if not why; and (D) other information as was available.

At 9:30 a.m., June 3, the five (5) Red Cross volunteers, the America National Red Cross (ANRC) Regional FEMA Advisor and the U.S. Nuclear Regulatory Commission (USNRC) Representative from Arlington, Texas met with me at the Federally funded Plan de Salud Health Center in Fort Lupton, Colorado. After the briefing, maps with specific geographic assignments were distributed to each surveyor along with survey forms and necessary supplies (see attached).

After receiving notification that the alert had officially begun, the survey teams began knocking on doors at 10:10 a.m. Unfortunately, there was a failure to disseminate the alert, and the actual alert did not go out over the Weather Bureau Alert Tone System until 11:50 a.m. Consequently, some of the information collected prior to that time has not been included in the general survey tabulations, i.e., sites receiving or not receiving alert, reasons for not hearing alert, response to alert within 0-2 and 2-4 miles from plant. Data on the above information was tabulated only for those 130 sites that were surveyed after the alarm went out. General data obtained from the total 280 sites surveyed includes status of the radio receivers, information on receiving severe weather alerts and weekly test and effectiveness of the pre-exercise alert publicity. The survey was completed at 2:00 p.m.

There were a number of additional factors which have a significant impact on the survey. Those readily identified are as follows: (A) June is an extremely busy time for farmers as it is the start of the migrant workers'

season for harvest of their crops; (B) the month of May and first few days of June were unusually rainy. There had been numerous severe weather warnings given by the weather bureau during this period. For example, several days before the exercise, three (3) weather alerts were given out on the radio receiver in one evening; (C) the Public Service Company (PSC) mailed information to holders of the receiver that an alert was to be held on June 3; (D) KOA radio, Denver, gave numerous public service announcements regarding the test exercise; (E) the Platteville sirens sounded an alert at approximately 9:15 am.

Attachment 1 to this report gives data obtained from the survey. Highlights are as follows:

GENERAL SURVEY DATA: (280 Sites Surveyed)

1. Only 130 (46%) were surveyed after the alert was disseminated at 11:50 am. The remainder 150 (54%) were surveyed before the alert was actually given.

2. 181 occupants of the 280 sites surveyed were interviewed (99 were not at home).

3. 8% of the sites surveyed (15 of 181) indicated that they did not have a receiver or that they had been having problems with the radio.

4. 75% of the sites surveyed (136 of 181) indicated that they had a copy of the PSC instruction and brochure that were provided to each recepient of the receiver. 25% either did not have a brochure or did not know if they had a copy.

5. 67% of the sites surveyed (122 of 181) indicated that they heard the weekly weather bureau test of the system.

6. 76% of the sites surveyed (137 of 181) indicated that they had received severe weather warning alerts that were put out by the weather bureau over the radio.

7. 52% of the sites surveyed (95 of 181) indicated that they were not aware of the Fort St. Vrain test exercise before it occurred.

SPECIFIC SURVEY RESULTS AFTER ALERT WAS DISSIMINATED: (130 Sites Surveyed)

8. Of the 130 sites that were surveyed after the alert, 44 (34%) actually received the alert via the receiver (45 were not at home and 41 were at home but did not hear the alert). Data from the 150 sites surveyed prior to the alert are not included.

9. Receivers were turned off at 20% of the locations who were at the site but did not hear the alert.

10. 27% or 11 of 41 sites interviewed after the alert was given responded that they did not hear the alert because they were either at home but out of hearing distance.

11. 67% of the sites within 0-2 miles of the plant received the alert.

It is recognized that this survey was not a research project, however, the data obtained does point out deficiencies, problems, omissions, and/or where further studies should be conducted. Consequently, the following is offered:

1. Major deficiencies arose in initiating the alert system which will be covered in other reports. These deficiencies should be addressed in detail.

2. Because the alert was delayed, 130 of the 280 sites were surveyed after the alert was issued. Only 34% (44) actually received the alert by the radio receiver. In contrast, however, 67% in the 0-2 mile zone from the plant heard the alert. As a follow-up it is recommended that:

   a. There is a need for further study to determine more precisely why this small percentage of people received the alert over the radio receiver.

   b. Require a supplemental method of notifying rural residents. Due to the County Road grid system in the immediate area, mobile police notification by siren and bull-horn should be considered as well as initiation of sound and visual alert devices at the plant site, i.e., flares, balloons, smoke and possible explosive devices.

   c. Determine the effectiveness of the duplicate radio and siren alert system for Platteville. The sirens went off approximately 2 1/2 hours earlier than the actual test.

3. Specific information has been provided under separate cover (see attached letter) identifying the specific locations that do not have receivers or that have receiving problems. A program to assure that the receivers are in place and workable should be initiated.

4. The large percentage of receivers that had been turned off (20%) is of concern. It should be determine if this problem is caused by apathy, complacency caused by the excessive amounts of weather alerts, lack of education, or for other reasons or a combination of the above.

5. Of those who responded after the alert, 27% indicated that they were home but were out of hearing distance, further study is needed to determine how the group of people who are at home can be assured of receiving the alert (see item #2 above).

6. Revision of the public information and education program is indicated. PSC and KOA Radio provided extensive information on the exercise, however, only 52% of the sites indicated that they had prior knowledge of the test. In addition, only 75% had the PSC information and educational booklet.

7. Only 67% of the sites indicated that they heard the weekly Weather Bureau test and 76% heard severe weather alerts. It is of concern that the percentages are not greater and that the system is not more effective on a day-to-day basis. Further evaluation is indicated.

I wish to commend Mr. Jim Montgomery, USNRC, Arlington, Texas for volunteering and assiting in conduct of the survey; Mr. Bill Cameron, ARC Advisor, Region VIII FEMA, for obtaining five (5) super volunteers; the anonymous Red Cross volunteer who gave it all and consequently received a dog bite; and give special recognition to you, Paul, for your knowledge, insight and guidance which led to the development and implementation of the survey.

Sincerely yours,

Robert F. Beggie

Robert F. Beggie
Emergency Coordinator
U.S. Public Health Service

Attachments

Federal Emergency Management Agency

Washington, D.C. 20472

APR 25 1984

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
Assistant Associate Director
Office of Natural and Technological
Hazards Programs

SUBJECT: Exercise Reports for the Fort St. Vrain Nuclear Power Station

Attached are exercise reports for the joint offsite radiological emergency preparedness exercises conducted on June 3, 1982, and June 10, 1983, for the Fort St. Vrain Nuclear Power Station with the State of Colorado and Weld County, Colorado. These reports cite that the State of Colorado and Weld County demonstrated the capability to protect the public in the event of a radiological emergency at the Fort St. Vrain Nuclear Power Station.

Although there were deficiencies observed at these exercises, they did not detract from the overall demonstrated capability by the State of Colorado and Weld County to protect the health and safety of the public. In light of this, the Federal Emergency Management Agency 44 CFR 350 approval of the State and local plans for the Ft. St. Vrain Nuclear Power Station will remain in effect.

If you have any questions, please contact Mr. Robert S. Wilkerson, Chief, Technological Hazards Division, at 287-0200.

Attachments
As Stated

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