

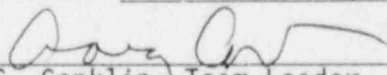
U.S. NUCLEAR REGULATORY COMMISSION
REGION I

Report No. 50-271/87-22
Docket No. 50-271
License No. DPR-28 Priority _____ Category C
Licensee: Vermont Yankee Nuclear Power Corporation
RD 5 Box 169
Brattleboro, Vermont 05301

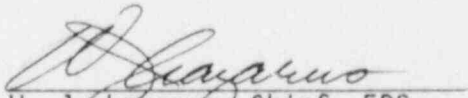
Facility Name: Vermont Yankee Nuclear Power Station

Inspection At: Brattleboro, Vermont

Inspection Conducted: December 1 - 4, 1987

Inspectors:  12/11/87
C. Conklin, Team Leader, EPS, EP&RPB, DRSS date

T. Tuccinardi, EP Specialist, EPS, EP&RPB, DRSS
K. Christopher, EPS, EP&RPB, DRSS
Geoffrey Grant, SRI
John MacDonald, RI
Harold Eichenholz, SRI, Yankee
Cynthia Carpenter, RI, Yankee

Approved By:  12/11/87
W. J. Lazarus, Chief, EPS, EP&RPB, DRSS date

Inspection Summary: Inspection on December 1-4, 1987 (Report No. 50-271/87-22)

Areas Inspected: Routine announced emergency preparedness inspection and observation of the licensee's annual emergency exercise performed on December 2, 1987. The inspection was performed by a team of seven NRC Region I personnel.

Results: No violations were identified. Emergency response actions were adequate to provide protective measures for the health and safety of the public.

DETAILS

1. Persons Contacted

The following licensee representatives attended the exit meeting held on December 4, 1987.

J. Gary Weigand, President and Chief Executive Officer
Warren Murphy, Vice President and Manager of Operations
James Pelletier, Plant Manager
Reid Smith, Assistant to the President
Edward Porter, Emergency Preparedness Coordinator
Stanley Jefferson, Exercise Coordinator
William Riethle, Manager Radiation Protection, YNSD

The team observed and interviewed several licensee emergency response personnel, controllers and observers as they performed their assigned functions during the exercise.

2. Emergency Exercise

The Vermont Yankee Nuclear Power Station full participation exercise was conducted on December 2, 1987 from 4:30 PM to 11:30 PM. Subsequently, The States of Vermont and New Hampshire and the Commonwealth of Massachusetts conducted field monitoring activities and an ingestion pathway exercise on December 3, 1987. These activities were observed by the Federal Emergency Management Agency.

2.1 Pre-exercise Activities

Prior to the emergency exercise, NRC Region I representatives held meetings and had telephone discussions with licensee representatives to discuss objectives, scope, and content of the exercise scenario. As a result, changes were made in order to clarify certain objectives, revise certain portions of the scenario and ensure that the scenario provided the opportunity for the licensee to demonstrate those areas previously identified by NRC as in need of corrective action.

NRC observers attended a licensee briefing on December 2, 1987, and participated in the discussion of emergency response actions expected during the various phases of the scenario. The licensee stated that controllers would intercede in exercise activities to prevent scenario deviation or disruption of normal plant operations.

The exercise scenario included the following events:

- An earthquake and subsequent after shocks;
- A loss of "A" Standby Gas Treatment Train;
- An Anticipated Transient Without Scram (ATWS), with subsequent core damage;
- A LOCA, outside of containment, with release to the atmosphere;
- Declaration of Unusual Event, Alert, Site Area Emergency and General Emergency Classifications;
- Calculation of offsite dose consequences; and
- Recommendation of protective actions to state officials.

2.2 Activities Observed

During the conduct of the licensee's exercise, seven NRC team members made detailed observations of the activation and augmentation of the emergency organization, activation of emergency response facilities, and actions of emergency response personnel during the operation of the emergency response facilities. The following activities were observed:

1. Detection, classification and assessment of scenario events;
2. Direction and coordination of the emergency response;
3. Augmentation of the emergency organization and response facility activation;
4. Notification of licensee personnel and offsite agencies of pertinent plant status information;
5. Communications/information flow, and record keeping;
6. Assessment and projection of offsite radiological dose and consideration of protective actions;
7. Provisions for inplant radiation protection;
8. Performance of offsite and inplant radiological surveys;
9. Maintenance of site security and access control;
10. Performance of technical support, repair and corrective actions;

11. Assembly, accountability and evacuation of personnel; and
12. Preparation of information for dissemination at the Emergency News Center.

3.0 Exercise Observations

The NRC team noted that the licensee's activation and augmentation of the emergency organization, activation of the emergency response facilities, and use of the facilities were generally consistent with their emergency response plan and implementing procedures.

3.1 Exercise Strengths

The team also noted the following actions that provided strong positive indication of their ability to cope with abnormal plant conditions:

- Positive command and control of all emergency response facilities (ERF's) was demonstrated by the respective managers;
- Classifications made by the Control Room, Technical Support Center (TSC) and Emergency Operations Facility (EOF) staff were prompt and correct, and subsequent notifications were timely;
- Dose Projections were performed often and utilized plant conditions as well as field conditions. Subsequent Protective Action Recommendations (PAR's) were timely and conservative;
- Staff augmentation was prompt and each ERF was setup and activated in a timely manner; and
- Staff members in each ERF demonstrated a thorough knowledge of the plant and coordinated effectively with their respective counterparts.

3.2 Exercise Weaknesses

The NRC team identified the following areas where weaknesses were observed which could have degraded the response and should be evaluated by the licensee for corrective action. This item is tracked as an Inspector Followup Item (IFI).

- 50-271/87-22-01: Initial notification forms do not allow for approval by the Plant Emergency Director. Additionally, the forms are not required when state EOC's are activated. This could result in necessary information not being transmitted to the states,

including Protective Action Recommendations at a Site Area Emergency.

3.3 Other Areas Requiring Follow-up

The NRC team identified the following areas which did not degrade the response, however these areas should be evaluated by the licensee to determine whether improvements could strengthen the response.

- The state and licensee work area in the Emergency News Center (ENC) is poorly lighted, excessively small, crowded and difficult to work in. It is doubtful that the ENC staffs could function effectively for prolonged periods in an actual emergency. The licensee needs to evaluate the ENC and make improvements to improve the staff work area.

4.0 Licensee Actions on Previously Identified Items

The following items were identified during previous inspections (Inspection Report Nos. 50-271/85-13, 50-271/86-26 and 50-271/87-07). Based upon observations made by the NRC team during the exercise the following open items were acceptably demonstrated and are closed:

(CLOSED) 50-271/85-13-01: Control Room personnel took action independently and were slow to pass information to the TSC.

(CLOSED) 50-271/85-13-05: Overall direction of plant activities (TSC) did not appear to be fully coordinated.

(CLOSED) 50-271/85-13-06: Excessive noise levels in the TSC.

(CLOSED) 50-271/85-13-07: TSC did not aggressively followup and coordinate plant activities.

(CLOSED) 50-271/85-13-08: Technical reviews in the TSC were inadequate.

(CLOSED) 50-271/86-26-01: The offsite monitoring teams reported their locations by using landmarks. Many of these landmarks were not labeled on the map and presented some difficulty in determining the precise location of the individual teams.

(CLOSED) 50-271/86-26-02: The TSC Coordinator was not actively involved in EAL discussions with the Control Room and EOF and in fact declined to participate in an EAL discussion.

(CLOSED) 50-271/87-07-01: Shift staffing and augmentation method and tests need to be evaluated for validity and ability to staff in a timely manner.

The licensee conducted an announced augmentation drill on November 22, 1987 at 6:30 PM. The results of this drill indicate that the licensee would be able to staff key emergency positions in a timely manner. Additionally, the annual exercise conducted on December 2, 1987, was unannounced and outside of normal working hours. The licensee also demonstrated the ability to augment and staff in a timely manner. Followup actions based upon the augmentation drill results include evaluation of the pager system and preparation of a notification procedure to encompass all affected departments.

Based upon the above review, this area is acceptable.

5.0 Licensee Critique

The NRC team attended the licensee's post-exercise critique on December 4, 1987, during which the key licensee controllers discussed observations of the exercise. The licensee indicated these observations would be evaluated and appropriate corrective actions taken.

6.0 Exit Meeting and NRC Critique

The NRC team met with the licensee representatives listed in Section 1 of this report at the end of the inspection. The team leader summarized the observations made during the exercise.

The licensee was informed that previously identified items were adequately addressed and no violations were observed. Although there were areas identified for corrective action, the NRC team determined that within the scope and limitations of the scenario, the licensee's performance demonstrated that they could implement their Emergency Plan and Emergency Plan Implementing Procedures in a manner which would adequately provide protective measures for the health and safety of the public.

Licensee management acknowledged the findings and indicated that appropriate action would be taken regarding the identified open item.

At no time during this inspection did the inspectors provide any written information to the licensee.