



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

January 24, 1980

MEMORANDUM FOR: Frank Pagano, Chief, Emergency Preparedness
Task Force

FROM: W. L. Axelson, Team Leader, Emergency Preparedness
Task Force

SUBJECT: TRIP REPORT REGARDING SITE REVIEW AT PALISADES NUCLEAR
PLANT FOR IMPROVING EMERGENCY PREPAREDNESS

On January 14-18, 1980, Review Team No. 6 conducted a review of the (draft) Palisades Nuclear Plant Emergency Plan and the State of Michigan Emergency Preparedness Plans. A site tour was initially conducted with representatives from the State Emergency Services Division; Allegan County Sheriff's Office; and the District State Police Department. After the site tour, the team members met with the Van Buren County Commissioners in Paw Paw, Michigan. This meeting was combined with the Resident Inspector's familiarization meeting. The remainder of the first day was spent touring the Van Buren County Emergency Operating Center located in Paw Paw, Michigan.

On the second day, a technical review session was conducted with Consumers Power Company. The draft emergency plan was reviewed against the acceptance criteria addressed in Emergency Planning Review Guideline Number One, Revision One. Enclosed is a summary of findings regarding this review. As a result of this meeting, Consumers Power Company was instructed to correct the deficiencies identified in their plan and submit to the Office of Nuclear Reactor Regulation a revised plan within five weeks. The licensee agreed to do this.

On the third day, a technical review session was conducted with representatives from state and local governments. State representatives from the Emergency Services Division; the Department of Public Health; the Department of Agriculture; and the Department of Natural Resources attended. Representatives from the Van Buren County Commissioners Office; County Department of Health; Van Buren and Allegan County Sheriff's Office; and other local representatives from several townships within Van Buren County also attended. In addition, representatives from the U.S. Coast Guard and the Federal Emergency Management Agency were present.

During the meeting with state and local representatives, several suggestions and common concerns were raised. Enclosed is a summary of these findings including identified areas in the plans needing further attention.

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On the fourth day, an additional plant tour was conducted in conjunction with the NRR Lessons Learned Task Force Team. Common areas of concern were reviewed together. Particular attention was focused on the following items: technical support center, improved in-plant iodine sampling, and provision for post-accident sampling.

A public comment session was conducted on the fourth day, after the plant tour. As a result of this session, two areas of concern were identified which the team feels should be addressed in the state or local plans. They are (1) local school representative, particularly in Covert Township, have not been involved in emergency plans and consequently are unaware of their responsibilities as stated in Annex M of the local plan, and (2) the elderly and handicapped within the EPZ have not been identified. The latter item can be addressed by contacting the Area Agency on Aging located in St. Joseph, Michigan. The team recognizes that it is not practical to identify every handicapped person within the EPZ; however, some preplanning including cognizant agencies on handicapped personnel can be of some benefit.



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Enclosures: as stated

cc w/encl: R. Silver, DOR/NRR
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B. Jorgensen, Resident Inspector

The following items were identified during our review:

Palisades Emergency Plan

1. The licensee has selected locations for the onsite Technical Support Center (TSC) and operational Support Group Center (SGC) for the January 1, 1980 requirements. The licensee has agreed to fully implement these centers prior to startup. Startup is tentatively scheduled for April 1980. The TSC will be located adjacent to the control room in the shift supervisor's office. This area currently meets the same habitability requirements as the control room. Additional offices adjacent to the control room will also be designated as the TSC. These offices do not meet control room habitability. The licensee is currently developing procedures to monitor for both direct radiation and airborne radioactive contaminants in these areas.

During the plant tour, the teams from Lessons Learned and Emergency Planning discussed the roles and functions of the TSC. The teams agreed that for the short term, technical data access or display to the TSC needs improvement. The licensee agreed that a dedicated communicator from the control room to the TSC would provide access to technical data. Further, they agreed that radiological assessment data to the TSC would be ensured by allowing direct access to the control room. This function needs to be separated from the dedicated communicator because radiological assessment parameters are located behind the control room panel. The emergency planning team concurred with these recommendations.

Regarding the long range plan for the TSC, the licensee stated that two plans are currently being examined. One plan is to upgrade the habitability for the short term TSC and provide direct display of critical plant parameters. The other plan is to build a new facility separate from the temporary TSC.

In summary, the licensee agreed to provide "as-built" diagrams of the TSC and SGC in the emergency plan. The diagram should clearly indicate the communications (primary and backup) between these centers, the control room, and the offsite centers established by the licensee, state and local authorities.

2. The licensee is currently developing procedures for collection and analyses of post-accident samples for (1) primary coolant, (2) containment atmosphere, and (3) final stack effluents. These procedures will be emergency plan implementing procedures which will be listed in the emergency plan. During the site visit, these procedures were still under development. The licensee stated that these procedures will be developed prior to startup.

The licensee's long range plan is consistent with NUREG-0578 and the clarification letter dated October 30, 1979.

3. The licensee containment monitors currently read up to 10^4 R/hr. The licensee's long range plan is to upgrade these monitors to 10^7 R/hr.
4. The licensee is currently developing procedures for improved in-plant and offsite radioiodine monitoring. These procedures will be emergency plan implementing procedures which will be listed in the emergency plan. The licensee intends to provide portable air samplers using a silver zeolite sample media.
5. The licensee is currently installing saturation meters plus backup means for detection of inadequate core cooling. The licensee stated these provisions will be installed prior to startup.
6. Appendix M of the Emergency Plan (Table of Emergency Action Levels) is inconsistent with NUREG-0610. Several areas were missing, particularly the detection method of initiating the emergency classification. The licensee agreed to include the detection methods previously discussed in Items 2 through 5 as emergency action levels. These are the containment monitor radiation levels; sample results from containment atmosphere; sample results from stack effluents; and instrumentation for detection of inadequate core cooling. Each instrument reading or sample result will be calibrated to classify an alert, site or general emergency. The table will list (1) an event, (2) detection method and reading, (3) licensee actions and (4) actions by state and local officials. The table may reference appropriate technical specifications for the lower classes of emergencies in lieu of real time instrument readings. However, the licensee agreed that the procedures will list all appropriate instrument readings or sample results for all classes of emergencies. This is a slight deviation from the acceptance criteria, however, the team felt the licensee is fulfilling the intent of the criteria.
7. The licensee emergency plan does not provide plots showing containment radiation level vs. extent of core damage. The licensee agreed to provide these plots in the emergency plan.
8. The licensee's normal operating organization for day shifts include, as a minimum, six individuals: one shift supervisor, two reactor operators, one shift technical advisor, and two auxiliary operators. The licensee's off shift organization consist of five individuals. During an emergency, the licensee's plan states that off site support can be provided within 60 minutes. Part of this support is activated from the Consumers Power General Office. The plan needs to clarify what support will augment the onsite organization for all shifts. A block diagram indicating what support will be implemented within 60 minutes for all shifts needs to be included in the plan.

During meetings with the licensee, the proposed minimum plant staffing requirements for emergencies were discussed. The licensee stated that their organization does not provide for a shift foreman, as required by

the proposal in NUREG 0654. Also, electrical maintenance/I & C technicians would have to be hired to implement this proposal. In general, the licensee felt this would have a significant impact on their current organization. The licensee expressed concern regarding a reasonable schedule for implementation of these requirements.

9. The licensee has selected a near site Emergency Operating Center (EOC). This center is located approximately five miles north of the facility. The state and local officials toured this center with the Emergency Planning Team. The state and local officials, as well as the team, concurred in the selection and location of the center. If an accident was less severe, the near site EOC could be moved closer to the facility. The State of Michigan plan currently provides this mobile capability.
10. The licensee's plan does not contain Appendix B or C as stated in the index. Appendix B should include the plots of time-distance dose calculations and the methodology for dose assessment. Appendix C should include the site evacuation routes, relocation centers, population distribution for the 10 mile EPZ, and vehicular road maps for the 10 mile EPZ.
11. The licensee's plan does not provide for dissemination of educational information to the public regarding the potential warning methodology for emergencies. The licensee is currently examining this criterion. The plan should include what method exists for warning the public. Currently, the local plan provides for door-to-door notification. Annex B of the local plan provides for siren coverage in the cities of South Haven, Bangor, Covert, and Hartford. However, the plan's deficiency statements indicate these sirens need to be upgraded.

For the interim (CY1980), the licensee should develop with state and local officials, a more timely warning system using the existing siren systems. An educational instruction pamphlet can easily be developed using these sirens with a 24 hr/day media station. This can easily be implemented by mid-1980.

12. Appendix E of the facility plans needs to be upgraded to include radiological equipment necessary to conduct adequate radiological monitoring, both onsite and offsite.
13. The current Letters of Agreement with the Department of Energy and Van Buren County Sheriff need to be updated. In addition, a Letter of Agreement with the Van Buren County State Park Director should be developed. This agreement should identify the emergency measures to be provided and the mutually acceptable criteria for their implementation.
14. Section 12.6.7.3.2 of the plan briefly states that contractors and vendors are available for assistance. The plan should explain these capabilities.

15. The plan does not provide for thyroid blocking agents or distribution of this drug during an emergency.
16. Section 12.6.8.1.1.d of the plan (training) does not indicate what training will be provided for local emergency preparedness personnel.
17. Section 12.6.7.1.2 of the plan does not indicate that adequate respiratory protection equipment is available for the TSC.

State of Michigan, Van Buren County, and Berrien County Emergency Plans

On January 8-9, 1980, the Regional Advisory Committee (Region V) met to discuss their review of the state and local emergency plans for the State of Michigan. Messrs. Gaitanis and Axelson were present at the meeting held on January 8th. As a result of this meeting, several common concerns between the RAC and the emergency planning teams were discussed. The following represents those concerns:

1. Several items, particularly 400 and 500 series items from NUREG-75/111 were missing from the plans.
2. The Allegan County plan was not submitted for review. This plan encompasses a small portion of the 10 mile EPZ for the Palisades Nuclear Plant.
3. The local plans do not reflect actual execution authority, particularly for a general emergency. In a real situation, the local sheriff has authority to execute the local plan without concurrence from the county commissioners.
4. Letters of Agreement with the State of Indiana were missing from the plan.
5. Letters of Agreement with the operating facilities were missing from the plan.

The above items were discussed with state and local representatives at the emergency planning meeting held at Palisades. Additionally, the RAC will be meeting with Michigan on January 31 and February 1, 1980.

As a result of the emergency planning team meeting with state and local representatives, additional areas of improvement were discussed with these officials.

1. Currently, provision for prompt alerting of some parts of the 10 mile EPZ exist. The method for alerting is sirens. However, these sirens are not integrated into a preplanned nuclear emergency warning system with predetermined actions from a local news media station. The team suggested that for the interim, these sirens should be used for alerting the public of a nuclear emergency. The news media station warning messages should be in English and Spanish due to a large influx of Spanish speaking residents during the harvest season.
2. Currently, no radio station within the 10 mile EPZ operates for 24 hours per day. However, a representative from WJOR radio station (South Haven), indicated that their station can be manned and operating on high power (EBS output) within ten minutes from a notification. The team suggested that WJOR be the 24 hour per day media notification station.

3. Currently, the local plans (Annex M) adequately address evacuation of county school districts. However, several local school representatives and school superintendents were unaware of their responsibilities as indicated in the plan. The team feels that training is needed in this area and prompt notification of all affected schools should be addressed as part of the early warning system.
4. The state plan provides an emergency classification system which is inconsistent with NUREG-0610. This item was discussed with representatives from the Department of Health at the Big Rock Point visit. During the Palisades meeting, Mr. Ted Zale, from the State Emergency Services Division indicated that this matter would be pursued within the state. In the interim, the team agreed to accept both NUREG-0610 and Michigan's Class A, B, C, and D systems. The plans should indicate compatible systems to prevent confusion. The team stressed that this matter should be resolved.