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SNRC-780
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and Operational Support
U.S. Nuclear Regulatory Commission, Region I
631 Park Avenue
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NRC Emergency Preparedness Appraisal 50-322/82-18
Shoreham Nuclear Power Station, Unit No. 1
Docket No. 50-322

Dear Mr. Smith:

This letter is in response to your letter of September 30, 1982 which transmitted the report on the NRC appraisal of onsite emergency preparedness for the Shoreham Nuclear Power Station. Each of the Appendix A and B findings are repeated below with a brief description of our planned actions for improvements. Appendix A items will be completed prior to fuel load with the exception of 5h and 8 which will be completed prior to attaining a power level greater than five percent. The schedule for completion of Appendix B items is addressed under Appendix B Findings.

Appendix A Findings

1. Assign corporate and onsite Emergency Planning Coordinators (EPCs) on a permanent basis who shall be given direct working level responsibility and authority over all aspects of the development and maintenance of the emergency preparedness program. Revise normal organizational charts, position analysis descriptions, and other related documents to reflect the EPCs assignments and to describe the scope of their duties, authorities, and reporting chains.

Response

The assignment of Corporate and Onsite Emergency Preparedness Coordinators will be made on a permanent basis. Candidates are being considered to fill these positions. Appropriate changes to organizational documents will be made once the positions have been filled.

2. Design, implement, and document a program to coordinate emergency preparedness activities including such things as technical information exchange, training, and site familiarization tours. Coordination on a continuous basis is needed between the site and corporate headquarters, the general public offsite support agencies, and the news media.

Response

Coordination of emergency preparedness activities between the site, corporate headquarters, the general public, etc., is currently being done under a task force concept. Once the permanent assignment as previously discussed has been made with appropriate personnel, a program to accomplish the necessary coordination will be developed and implemented.

3. Revise your emergency organization and Emergency Plan to:

   (a) describe all functional areas of response and emergency tasks;

   (b) provide for all response sequences;

   (c) clarify responsibilities and inter-relationships between the various organizational elements; and

   (d) provide an organizational structure within the Operational Support Center (OSC) that will meet the demands of its emergency functions.

Response

As part of our review of the Emergency Preparedness Implementing procedures, we are clarifying and revising the appropriate procedures which discuss our Emergency Preparedness Organization. Furthermore, we are factoring into these procedures any changes necessitated by revisions to other implementing procedures.

4. Demonstrate, after personnel involved are trained and qualified, that the augmentation of your emergency organization can be accomplished within the time-frames specified in NUREG-0654.

Response

LILCO will demonstrate by the performance of a drill, which will include personnel notification and activation, that the augmentation of on-shift personnel can be accomplished within the time-frame established within the Emergency Plan. This drill will be scheduled prior to fuel load and after personnel have been trained and qualified to existing procedures.

5. Complete the development of the training program to include the:

   (a) Designation of an individual to coordinate emergency preparedness training;

   (b) Development of written instructor qualifications;

   (c) Development of pass/fail performance criteria for written tests used to qualify emergency personnel;

   (d) Revision of lesson plans to specify performance objectives consistent with your implementing procedures;

   (e) Development of lesson plans and training courses for: personnel monitoring/decontamination, inplant surveys, post-accident sampling, repair and corrective actions, radwaste operations, and general employee training;

   (f) Complete training of all emergency response personnel in existing emergency related equipment and procedures; and

   (g) Retrain at least 25 percent of all emergency response personnel in new emergency related equipment and procedures. Such personnel shall be selected so as to provide trained individuals in all functional areas of emergency response.

   (h) Complete retraining of all emergency response personnel in new emergency related equipment and procedures.

Response

(a) Completed - The responsibility for emergency preparedness training has been assigned to the Shoreham Nuclear Power Station Training Supervisor.

(b) Completed - Emergency Plan Training Manual has been modified to reference the SNPS training administration manual which addresses instructor qualifications.

(c) Completed - An overall grade of 70% was selected as the minimum passing criteria. All individuals with overall grades of less than 70% were identified and evaluated on a case by case basis for relevancy of assigned lesson. Lessons that were not relevant to an individuals job were withdrawn from the grading process, however, an overall grade of 70% is required in all relevant areas.

(d) Those lesson plans which will not be impacted by revised procedures are being modified. Upon completion of revised procedures, a review of related lesson plans will be done and appropriate modifications made.

(e) Lesson plans and courses will be developed upon completion of subject procedures.

(f) Training to existing procedures is continuing with over 95% of personnel fully trained.

(g) Retraining to new and revised procedures will be started once these procedures are available.

(h) See response to (g) above. Note that complete retraining will be done prior to attaining a power level greater than five percent.

6. Complete installation and operational testing of meteorological equipment, radiation and non-radiation monitors, and the plant process computer needed in the control room to support emergency classification, assessment and response functions.

Response

These items are essentially construction complete. Pre-operational testing is in progress.

7. Complete installation of instrumentation in the Technical Support Center needed to provide data for support of operations.

Response

Equipment is installed with software loaded in plant process computer. Preoperational tests are in progress.

8. Complete the installation and assure the operability of facilities and equipment incorporating the guidance of NUREG-0737 for the following:

   (a) sampling and analysis of post-accident primary coolant;

   (b) sampling and analysis of the post-accident containment atmosphere;

   (c) sampling and analysis of post-accident gas and particulate effluent; and

   (d) the transfer storage, sampling and analysis of post-accident liquid wastes.

Response

Construction is essentially complete with testing in progress for Items a, b, and c. The development of appropriate operating procedures is also in progress. The following clarification is needed for Item d.

The transfer, storage, sampling and analysis of post-accident liquid wastes will be accomplished as follows:

- liquid wastes from a break in primary containment are routed to the suppression pool and held there.

- liquid wastes from a break in secondary containment enters sumps which are pumped to the suppression pool, and the wastes are held there.

- samples of these wastes are obtained and analyzed in the Post Accident Sampling Facility via a sample line connected to the RHR system. Back-up analysis capability for this facility is discussed in the response to audit finding No. 9.

We believe this scheme provides for the transfer, storage, sampling, and analysis of post-accident liquid wastes consistent with NUREG-0737. The necessary equipment is in place, with training and procedure development in progress at this time.

During recovery operations after the accident, the analysis performed as described above on the wastes in the suppression pool will be used to aid in deciding the method of treatment for clean up. Radwaste treatment equipment would be employed under controlled conditions to affect the degree of clean up necessary. Samples of this treated liquid could be obtained via the Radwaste Sample Panel and be analyzed onsite.

We believe this scheme provided for the safe transfer, storage, sampling and analysis of post-accident liquid wastes during the recovery phase. The necessary equipment is installed and is being tested at this time.

9. Provide a permanent, onsite, back-up capability for performing chemical and radiochemical analysis during emergency situations.

Response

The primary design for the back-up for both chemical and radiochemical analysis, in compliance with NUREG 0737 item II.B.3 and Regulatory Guide 1.97 Rev. 2, is the design capability to obtain a grab sample in order to perform the required analyses at appropriate offsite facilities.

Additional back-up onsite capabilities will be provided as follows:

1. A dilute sample can be analyzed for gross activity and gamma spectrum in the normal chemistry laboratory/counting room.

2. An analysis by other methods can be performed on samples reading $\leq$ 20 R/hr. on contact (sample size is 4.2 cm^3) for pH on an undiluted sample and for boron on a sample diluted as much as 1000:1. These analyses can be performed in the normal chemistry laboratory onsite.

3. Containment atmosphere analysis for hydrogen and oxygen via existing redundant safety grade system design.

10. Ensure that provisions have been made at assembly/reassembly areas for radiological assessment and protection of personnel remaining onsite during severe accident conditions. In addition, make provisions for transportation of personnel to offsite locations suitable to protect them from inclement weather and for which provisions have been made for radiological protection, personnel monitoring and decontamination.

Response

Portable area radiation monitors have been ordered for use in assembly/reassembly areas. Offsite locations to provide adequate sheltering, radiological monitoring, protection and decontamination are currently being reviewed.

11. Complete medical treatment facilities and provide equipment and supplies necessary to ensure that such facilities will be able to perform their intended functions during emergencies.

Response

The existing First Aid Station which services the construction forces will be used until the permanent First Aid Station in the Office and Service Building Annex is completed. Provisions will also be made for minor first aid in the decontamination facility.

12. Place decontamination equipment, instrumentation, supplies, and decontamination procedures in those locations where personnel would be decontaminated during emergencies, and provide a method for handling a number of contaminated individuals.

Response

Necessary equipment has been ordered and will be located in the proper decontamination facilities. Procedures are being reviewed to assure proper handling of decontaminated individuals.

13. Specify facilities in the vicinity of the site which will be used for expanded support in the event of a continued large scale response to an emergency situation. Incorporate a description of such facilities in the Emergency Plan.

Response

Support facilities within the Extended Protected Area which are planned to be used during routine plant outages by contractor personnel will be designated as expanded support facilities in the event of a prolonged emergency.

14. Provide dedicated instruments and supplies in accordance with Procedure SP 69.062.01 and ensure that they are operational and readily available for emergency use.

Response

Approximately 85% of the required equipment is in place. The remaining items are being procured on a priority basis. Once received, checks will be made to assure operability.

15. Complete the installation and calibration of meteorological instrument readouts in the Emergency Response Facilities needed to perform dose assessment functions during accidents.

Response

Installation has been completed and acceptance tests are in progress.

16. Complete the respiratory protection program needed to support emergency response activities (e.g., fitting and testing of respirators); provide respiratory protection for persons expected to remain onsite during site and general emergencies; and provide for the continuous availability of air for self contained breathing apparatus.

Response

Personnel respiratory protection devices have been received. The respiratory fit testing booth has been ordered. Upon receipt of the fit test booth, procedures for fit testing personnel will be completed and fit testing will then commence. All personnel expected to wear respiratory protection during an emergency shall be fit tested prior

to fuel load. A breathing air recharging system capable of continuously supplying air for self contained breathing apparatus cylinders is in the process of being ordered.

17. Provide protective clothing at the locations necessary to support emergency response functions consistent with the types and levels of radioactive contamination expected during accidents.

Response

Protective clothing is being ordered. Upon delivery, the clothing will be placed in the required locations.

18. Complete the installation and operational testing of communications and notifications systems described in the Emergency Plan Implementing Procedures. In the event that restrictions continue to be imposed by local authorities, an alternative measure will be proposed by LILCO and agreed to by the NRC.

Response

The installation of various equipment for which LILCO has control over is being completed. These include telephones, paging systems, sirens, beepers, etc. We are not yet in a position to propose alternative measures for notification in the event Suffolk County does not cooperate.

19. Review Emergency Plan Implementing Procedures and make revisions to:

(a) Clarify required actions and the duties and responsibilities of personnel performing these actions;

(b) Correct ambiguities, inconsistencies, omissions, errors, wordy discussions, unnecessary references, lists of contents, and other extraneous materials which do not help the users to perform their duties during emergencies;

(c) Provide specific cross-references to other procedures in the action steps needed to further detail and clarify actions;

(d) Include lines of command, communications, and information flow necessary to perform emergency tasks and response actions; and

(e) Ensure that emergency response tasks are coordinated between the appropriate elements of the emergency organization and are consistent with the organizational structures.

Response

A procedure review group has been established to review and revise the existing Emergency Preparedness Implementing Procedures taking into account each of the items outlined in the appraisal report.

20. Provide Emergency Plan Implementing Procedures and other procedures needed to implement the Emergency Plan, including the following:

(a) In-plant surveys during emergencies;

(b) Repair and corrective actions during emergencies;

(c) Security during emergencies;

(d) Radiation protection during emergencies;

(e) Drills and exercises;

(f) Sampling and analysis of post-accident liquid wastes;

(g) Sampling and analysis of primary coolant during accidents;

(h) Sampling and analysis of containment air during accidents;

(i) Sampling and analysis of stack effluents during accidents;

(j) Calibration procedures for the above, when pertinent;

(k) Alarm response procedures; and

(l) Emergency operations procedures.

Response

Procedures covering the above areas are being developed.

21. Prepare and distribute public information material regarding the actions to be taken by individuals within the Emergency Planning Zone.

Response

Drafts of the public information material have been prepared. The material is currently under review.

Appendix B Findings

1. Develop and implement selection and qualification criteria for personnel assigned emergency planning responsibilities.

Response

Appropriate criteria is being developed. Completion is expected during the first quarter of 1983.

2. Develop a training program for individuals who are assigned emergency preparedness responsibilities which will enable them to attain and maintain a state-of-the-art knowledge in the field of emergency preparedness.

Response

A training program will be developed for the Emergency Preparedness Coordinators which will enable them to maintain a state-of-the-art knowledge of emergency preparedness. It is expected a program will be in place by the first quarter of 1983.

3. Review your Emergency Plan and make appropriate revisions to specify on an annual basis retraining of all employees who received General Employee Training.

Response

The Emergency Plan will be revised to specify retraining, as appropriate, of those employees who receive General Employee Training.

4. Construct an overpass to facilitate commuting between the Control Room and the Technical Support Center.

Response

Completion of the planned overpass between the Office Building Annex and Office and Service Building, which will serve to facilitate commuting between the Control Room and the TSC, will be completed by mid 1983.

5. Provide an alternate Operations Support Center (OSC) and a scheme for moving OSC personnel in the event the primary OSC became uninhabitable.

Response

In the review and revision to our Emergency Preparedness Implementing Procedures, we are identifying an alternate OSC with the scheme for moving personnel to the alternate facility. This will be done prior to fuel load.

6. Develop and implement inspection and maintenance procedures for instruments on the 33-foot meteorological tower.

Response

A program will be developed and implemented by the first quarter of 1983.

7. Establish means for obtaining information on severe weather conditions, and for calibrating meteorological instruments on a quarterly basis.

Response

Provisions will be made to obtain information on severe weather conditions. Calibration procedures will be established on a quarterly basis. This will be done by mid 1983.

8. Provide NRC with the results of the study which compared and correlated measurements from the meteorological towers, and which incorporated the effects of the land sea interface in the dose assessment model.

Response

The results will be made available once the study has been received and reviewed by LILCO. We expect to be able to submit the results in January 1983.

9. Evaluate dedicated equipment needs for damage control, corrective action and maintenance, and the positioning of this equipment at specified locations for use during an emergency.

Response

The development of our Emergency Preparedness Implementing Procedures for Repair and Corrective Action will address these items. The procedures will be completed prior to fuel load.

10. Develop provisions for a periodic review cycle, a quarterly telephone number check and a controlled distribution list for the Emergency Plan; distribute controlled copies of emergency preparedness documents and ensure that the NRC, New York State and Suffolk County receive updated copies.

Response

These items will be considered during the review of the Emergency Preparedness Implementing Procedures currently under way. Completion will be prior to fuel load.

11. Complete the schedule for auditing the emergency preparedness program.

Response

An audit schedule will be established with the first audit to be run during the first quarter of 1983.

Very truly yours,

M. S. Pollock

M. S. Pollock
Vice President-Nuclear

cc: Mr. J. Higgins
All Parties