

U. S. NUCLEAR REGULATORY COMMISSION

REGION III

Report No. 50-305/84-07(DRSS)

Docket No. 50-305

License No. DPR-43

Licensee: Wisconsin Public Service
Corporation
Post Office Box 1200
Green Bay, WI 54305

Facility Name: Kewaunee Nuclear Power Plant

Inspection At: Kewaunee site, Kewaunee, WI

Inspection Conducted: July 9-13, 1984

Inspectors. *W. G. Sney*
W. G. Sney
(Team Leader)

8/6/84
Date

William B. Gloersen
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8/6/84
Date

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Section

8/6/84
Date

Inspection Summary

Inspection on July 9-13, 1984 (Report No. 50-305/84-07(DRSS))

Areas Inspected: Routine, announced inspection of the following areas of the Emergency Preparedness Program: emergency detection and classification; protective action decisionmaking; notifications and communications; changes to the emergency preparedness program; shift staffing and augmentation; knowledge and performance of duties (training); dose calculation and assessment; licensee audits; and licensee actions on previously-identified actions. The inspection involved 144 inspector-hours onsite by two NRC inspectors and two consultants.

Results: One apparent item of noncompliance was identified in one area for failure to carry out required monthly communications tests (notifications and communications). No items of noncompliance or deviations were identified in the remaining seven areas inspected.

DETAILS

1. Persons Contacted

- *D. Hintz, Manager Nuclear Power
- *J. Richmond, Plant Services Superintendent
- *R. Lange, Maintenance Superintendent
- *D. Seebart, Nuclear Emergency Preparedness Coordinator
- *W. Bartelme, Emergency Planning Specialist
- *M. Marchi, Technical Services Superintendent
- *C. Schrock, Nuclear Licensing and Systems Supervisor
- *J. Morrison, Nuclear Administrative Supervisor
- B. Steckler, Radiation Protection Technologist
- M. Ahearn, Radiation Protection Technologist
- W. Winnowski, Chemistry Supervisor
- D. Shields, Chemistry Technician
- J. Madden, Chemistry Technician
- J. Ruege, Quality Assurance Supervisor
- D. Ristau, Nuclear Technical Review Supervisor
- G. Hoppe, Shift Supervisor
- D. Masarik, Shift Supervisor
- K. Evers, Shift Supervisor
- G. Ruitter, Shift Supervisor
- R. Ledvina, Shift Supervisor
- J. Peterson, Shift Supervisor
- J. Stoeger, Trainee
- D. Sauer, Shift Technical Assistant
- T. Keneklis, Nuclear Training Supervision
- D. Bouche, Training Specialist

*Denotes those present at the exit interview on July 13, 1984.

2. Emergency Detection and Classification

Emergency Action Levels (EALs) were reviewed for consistency with the Emergency Plan and NUREG-0654, Revision 1. EALs were based on major emergency classification criteria supported by site specific (KNPP) indications which were observable in the control room or from onsite and offsite monitoring results.

Emergency Plan Implementing Procedures (EIPs) EP-AD-3 through EP-AD-6 contain instructions for the Emergency Director if conditions at the site warrant the classification of an Unusual Event through General Emergency. EP-AD-6 (General Emergency) and EP-AD-5 (Site Emergency) contain guidance for protective action recommendations. This guidance is intended for the Shift Supervisor in the role of Emergency Director when no projected dose calculations or field sample data are available. In the event sample data or projected doses are available, EP-AD-19 (Protective Action Guidelines) is used. EIPs EP-AD-10 provides guidance on notification procedures in the event of an Unusual Event through General Emergency. Each of these procedures is intended for use by the control room communicator and specifically states the Emergency Director

must provide protective action recommendations within 15 minutes of declaring the emergency class to the communicator for relay to the state and local governments.

EALs have been reviewed by State and local agencies as required by 10 CFR Part 50, Appendix E, Section IV.B. The appropriate EIPs specifically state which duties cannot be delegated by the Emergency Director as required.

A review of plant emergency operating procedures verified that adequate reference is made to remind the operator that simultaneous use of the EIPs and Plant Emergency Operating Procedures is required.

EALs were reviewed and compared with control room instrumentation. No inconsistencies were detected.

Based on the above review, no violations or deviations were identified.

3. Protective Action Decisionmaking

Protective action decisionmaking and recommendations were tested during walkthroughs with each Shift Supervisor. The emergency procedures have been designed to guide the Shift Supervisor toward a quick protective action recommendation based on plant conditions without the use of projected doses or field sample information.

Walkthroughs revealed some confusion by the Shift Supervisors on the 15-minute time requirement on making protective action recommendations to offsite agencies. A reference to this time limit is contained in Section 4.1.4 of EIPs EP-AD-9 (Notification of Site Emergency) and EP-AD-10 (Notification of General Emergency); however, it is omitted from EP-AD-19 (Protective Action Recommendations). To eliminate confusion, this time restriction should be incorporated into EP-AD-19 (Section 4.1) and also stressed in training.

Section 4.2 of EP-AD-19 (Protective Action Guidelines) is intended to give the Emergency Director/Emergency Response Manager longrange guidance on protective action decisionmaking. Consideration should be given to incorporating more specific and detailed guidance into this procedure. Factors to include for the decisionmaker's consideration in the event he has projected doses or field sample results should include the level of containment activity, probability of containment failure, evacuation or shelter by sectors, plume transport time, release duration, etc. Although the initial protective action (Section 4.1) guidance appears simple and complete, the above items should be factored in Section 4.2 (Subsequent Protective Action Recommendations) to provide further decisionmaking assistance to the appropriate emergency manager.

Emergency procedures specify protective actions for onsite personnel and plant assembly and evacuation of nonessential onsite personnel for Alert, Site Area and General Emergencies.

Walkthroughs conducted revealed that Shift Supervisors knew their emergency duties and responsibilities and those of their support personnel.

Based on the above review, no violations or deviations were identified.

4. Notifications and Communications

The inspectors reviewed the licensee's procedures for notification of offsite agencies and Kewaunee personnel during emergency conditions. Notification Procedures EP-AD-7 through EP-AD-10 were consistent with the emergency classification and emergency action level schemes. All four emergency classifications indicated that initial notifications to the State and local governments will be completed within 15 minutes after declaring an emergency. Although the procedures noted above had provisions for message verification by a return telephone call method, there was not a place for the communicator to document the time when the return phone call was made. It is recommended that a place be provided to document the time the NAWAS verification is received.

The licensee uses the NAWAS as the primary means of notifying the State and local governmental agencies. The licensee has deleted EP-AD-17 (Communications) and added Appendix A (Communications), which describes the communications systems used during a plant emergency and contains the telephone numbers of emergency response organization personnel and offsite agencies. The telephone numbers have been updated quarterly as specified in Technical Support Procedure (TSP) 44-1.

The inspectors examined the procedures for alerting, notifying, and activating emergency response personnel and facilities and determined that they were current and complete. The contents of the initial and follow-up messages to offsite agencies were examined and determined to be adequate.

The Kewaunee County Government is responsible for the testing of the siren system in their county. The county performs monthly growl tests and complete cycle tests twice per year. The licensee observes the monthly tests on a quarterly basis and observes the complete cycle tests.

The communications equipment was examined in the Control Room, TSC, and EOF and found to be adequate. Recently, the licensee replaced the special private line ring-down circuit, except for the line between the EOF and JPIC, with the stored program PBX telephone system. The PBX system is powered from an uninterruptable power supply and has an internal battery pack to supply power for a short period of time if the primary power source has failed. If there is a complete and total loss of the system, there are four independent trunk lines available from an outside source.

The inspectors reviewed the results of the monthly tests of the National Warning System (NAWAS), Emergency Notification System (ENS), Health Physics Network (HPN), and dial select phone system; the monthly

functional tests of the pager system; and the quarterly check with the Coast Guard. Most of the required communication drills were conducted per TSP 44-2 (Emergency Communications Systems Checks). However, in June 1984, the monthly ENS, HPN, and NAWAS tests were not conducted. These systems were tested on May 8, 1984 and not again until July 12, 1984. This is a noncompliance with 10 CFR Part 50, Appendix E, Section IV.E.9 .a and d requirements, which require that communications with State and local governmental agencies within the plume exposure pathway EPZ be tested monthly; and communications between the licensee's Control Room, Technical Support Center, and Emergency Operations Facility and the NRC's Operations Center and Regional Office be tested monthly (305/84-07-03). Since the new PBX system was installed in the emergency response facilities, the licensee has not issued a testing procedure for this system. The inspector was informed that this procedure was being developed. Currently, TSP 44-2 describes a method to test the ring-down lines on a quarterly basis.

Several communication checks were conducted with emergency preparedness decisionmakers on a variety of communications systems indicating these personnel were available and the equipment operated properly.

Based on the above review, one violation was identified.

5. Changes to the Emergency Preparedness Program

The inspectors reviewed the licensee's records for distribution and revision of the Kewaunee Emergency Plan and Emergency Plan Implementing Procedures. The Nuclear Licensing and Systems Superintendent reviews all plan changes and determines if the changes decrease the effectiveness of the plans. The Technical Superintendent performs this function for the Implementing Procedures. The licensee's reviews determined that none of the plan changes downgraded the effectiveness of the plan; however, it is not clear that the review of Revision 3 of the plan addressed the additional deletion of the communicator position from the minimum shift staff. Major changes in the structure of the emergency organization have occurred and the plan was revised to reflect these changes. All changes to the emergency plan and procedures were appropriately reviewed and distributed to all individuals on the distribution list. A verification of receipt form that is to be returned accompanies each plan and procedure revision that is distributed.

A log is kept of these forms when received to ensure all individuals received the revisions. All changes reviewed were sent to the NRC within 30 days of the change being implemented as required by 10 CFR 50.54(q) and Appendix E.

Based on the above review, no violations or deviations were identified.

6. Shift Staffing and Augmentation

The inspectors reviewed the physical and administrative aspects of the shift staffing and augmentation procedures. The licensee has added a

Control Room Supervisor (SRO) to the operating Shift Staff, but eliminated the dedicated communicator position. Currently, the licensee is using one of the eight shift members for initial notification and communication responsibilities. The elimination of the dedicated communicator was addressed by the licensee in a letter to Mr. Eisenhut of the NRC dated April 15, 1983, which discussed commitments to implement items in NUREG-0737, Supplement 1. However, since it is not specifically addressed as a requirement in Supplement 1, minimum shift staffing was not reviewed as part of that submittal. Accordingly, the Commission Order dated June 12, 1984, was issued to confirm the licensee's commitments to implement Supplement 1 requirements, which do not specify minimum staffing levels. The licensee's proposed shift staffing levels are under review by the NRC staff.

Presently, the licensee's operating shift staff consists of the following: one Shift Supervisor (SRO); one Control Room Supervisor (SRO); two Control Room Operators (RO); two Auxiliary/Equipment Operators; one Shift Technical Advisor (STA); and one Radiation Technologist. The NRC has allowed the licensee to deviate from the minimum staffing guidance in Regulatory Guide 1.101 (Revision 2) in that there is one Chemistry Technologist on shift for only 96 hours per week; however, based on a review of the above referenced April 15, 1983, correspondence, insufficient information was provided to justify the additional elimination of the communicator position. The licensee has demonstrated through augmentation drills that at least two chemistry personnel can respond and be onsite within 30 minutes. However, a description of these augmentation drills has not been provided in the Emergency Plan as requested in last year's inspection report (50-305/83-13). Since the condition for not providing an on shift Chemistry Technologist 24 hours per day was based on the ability of two or more chemistry personnel to respond within 30 minutes, the licensee must provide a description of these drills in the Emergency Plan to ensure that the drills will be conducted so as to provide ongoing evidence that this capability will continue to work. Presently, the licensee uses Technical Support Procedure (TSP) 44-3, Tone-Voice Radio Pager Testing, to conduct augmentation drills. This will be tracked as an Open Item (305/84-07-01).

The inspectors examined the quarterly augmentation drill results since the last inspection. During the May 1984 augmentation drill nearly all the response times exceeded the 30 and 60-minute time goals. The problem was due to the night bell being switched off in the Control Room, so that all incoming calls were not answered. The licensee took corrective action and wrote a procedure for the receptionist/operator to ensure that the night bell would be turned on and the main phone turned off. The inspectors noted that the licensee only tests the tone-voice radio pager system, but does not test the dial-select phone for initial notifications for shift augmentation of key personnel. Since either system could be used in an actual event, it is recommended that the licensee occasionally test the dial-select phone system for initial notifications. The inspectors also noted that the quarterly augmentation drills are normally conducted during the normal working week between 6 p.m. and 10 p.m.. It is recommended that the licensee perform

occasional weekend and early morning augmentation drills. In addition to the quarterly augmentation drills, a functional test of the pager system is performed monthly.

During normal working hours, emergency response personnel are notified by the plant's public address system, telephones, and pagers. Initial notifications for shift augmentation are made with a dial-select phone if time permits for key personnel and a normal phone for other personnel, with an extensive pager system as a backup.

Based on the above review, no violations or deviations were identified.

7. Knowledge and Performance of Duties (Training)

The inspectors examined the licensee's program for emergency training and retraining by means of walkthroughs and a review of training records. The emergency preparedness training program is described in Section 8.0 of the Kewaunee Emergency Plan. This section describes the training program's key elements; that is, initial training, refresher training, proficiency training, indoctrination training, offsite agency training, drills, and exercises. The training department determines which staff members receive training and to what extent.

The majority of emergency preparedness class room and simulator training will be conducted in the upcoming requalification training period for operations personnel.

The training department has developed a computer data based system which lists all personnel requiring emergency preparedness training. The system effectively tracks all personnel training needs and provides an auditable, efficient summary. Several training records were reviewed which revealed essentially all refresher training is completed annually in the fall.

Training records of offsite emergency response organizations were reviewed and found satisfactory.

The emergency preparedness drill and exercise schedule meets the requirements of 10 CFR Part 50 Appendix E. The First Aid training program was reviewed and found complete and up to date.

Walkthroughs were oriented toward determining the knowledge level of Shift Supervisors and how effective the emergency plan and procedures were. All Shift Supervisors, one Shift Technical Assistant (STA) and one Control Room Supervisor were interviewed. The scenario and data provided a logical progression from Unusual Event to General Emergency. The individuals were requested to utilize all normally available tools and procedures and to request further data from the inspectors if desired. Special emphasis was placed on post-TMI indication usage, protective action recommendations, and EAL detection and classification. The walkthroughs were generally well received and individuals displayed an adequate knowledge level of the emergency preparedness plan and procedures. Due both to the infrequency of practice and recent EPIP changes, individuals

generally were somewhat hesitant on protective action recommendations. This should be stressed on the upcoming annual refresher training in the fall.

The 15-minute requirement for maximum time to make an initial protective action recommendation is delineated in the Emergency Plan (Section 6.8.2) and EIPs EP-AD-7, 8, 9, and 10; however, some confusion existed with Shift Supervisors on whether this was a requirement.

All Shift Supervisors were strongly aware of the need to delegate many of their duties during an emergency situation. This is particularly vital in the early stages of an emergency to allow the Shift Supervisor to manage effectively the shift and the plant.

Based on the above review, no violations or deviations were identified.

8. Dose Calculation and Assessment

The licensee's offsite dose calculation methodology entails manually inputting meteorological data (wind direction and speed, vertical temperature difference, standard deviation of horizontal wind direction) and radionuclide release data into a dose calculation program which runs on an IBM Personal Computer. This primary dose calculation method was backed up by a mainframe computer at the Corporate Office in Green Bay, as well as a manual method. According to a licensee representative, use of the mainframe computer for dose assessment will be discontinued as soon as an additional IBM-PC is purchased, thereby permitting one PC to provide backup capability to the other. These PC's will continue to be backed up by a hand calculation method. Primary offsite dose calculation methods are governed by the following procedures: EP-ENV-3D, "Primary Determination of Meteorological Data," Revision A; and EP-ENV-3C, "Primary Dose Projection Calculation - IBM Personal Computer, Revision B.

The hand calculation backup method mentioned above is described in the following procedures; EP-ENV-3E, "Manual Determination of X/Q (KNPP Meteorological Data)," Revision F; EP-ENV-3F, "Manual Determination of X/Q (Green Bay Meteorological Data)," Revision E; and EP-ENV 3G, "Manual Dose Projection Calculation, Revision E.

Site meteorological data can be obtained from the 10-m and 60-m levels on the meteorological tower either from a chart readout in the TSC or from a Honeywell computer terminal located in the Control Room, TSC, and in the near future, the EOF. The Honeywell system, which is near full operation, will provide a capability to perform a number of different analyses of plant parameters (e.g., time-averaging, trending), including meteorological data. The inspector noted that although time-averages of meteorological data could be obtained from this system, the licensee had no apparent plans to do so. Meteorological data were obtained by reading the chart located in the TSC. There did not appear to be any procedural guidance for reading this chart, i.e., one licensee representative stated that he would use an "instantaneous" value, while a second individual stated that he would use an "eyeball average." It is recommended that a time-averaged value (e.g., 15 minutes) be obtained from the Honeywell

computer and incorporated into the dose calculation procedures as soon as the system is declared operational and staff members are trained in its use. This is an Open Item (305/84-07-02).

The dose calculation program accepted either plant release data or field sample data, the latter being a back-calculation for the purpose of confirming predicted values. Plant release data could be entered from one of three sources: stack analytical sample results; high range effluent monitor (SPING) results; or steam line monitor data. Stack sample results could be added for eight noble gases and I-131. SPING results were entered as the most recent 10-minute average of noble gas and iodine activity. The SPING data were partitioned according to noble gas source term data supplied by Westinghouse such that the total activity corresponded to the total activity predicted by the SPING response. The SPING iodine channel was interpreted as I-131 only. The failure to allow for short-lived iodines in the source term (i.e., assume the activity is all I-131) could mean that thyroid dose projections are conservative by a factor of 4-5 immediately after shutdown, according to Figure 2.3 of NUREG/CR-3011, "Dose Projection Considerations for Nuclear Power Plants."

The dose calculation yielded adult whole body and child thyroid dose projections for the 10 mile EPZ in one-mile increments along the plume centerline and for 12 isopleths. The calculation was based on a straight line Gaussian diffusion estimate; however, some allowance can be made for the "lake breeze" effect using Form ENV-3D.2 of Procedure EP-ENV-3D. Information thus obtained is used primarily to guide field survey teams during plume monitoring. The lake breeze methodology is considered interim, pending the outcome of a NOAA-sponsored study which utilized data from the Kewaunee site. It is not known when the results of that study will be available.

The dose model calculated immersion doses due to noble gases and thyroid doses due to I-131 inhalation. Other pathways (e.g., milk ingestion, inhalation of particulates, activity deposited on the ground) were not incorporated into the dose model; however, Procedure EP-RET-6, "Dose Projection," Revision 2, contained a table of precalculated protective actions for these other pathways. All dose factors in the program were taken directly from Regulatory Guide 1.109.

Based on the above review, no violations or deviations were identified.

9. Licensee Audits

The inspector interviewed the Nuclear Technical Review Supervisor and QA Supervisor, and audit and review reports for 1982 and 1983 to determine if the licensee had performed independent reviews of the emergency preparedness program. The licensee's review/audit process is multi-faceted. Under the direction of the Nuclear Technical Review Supervisor, a review is made of licensee performance during drills and the annual exercise. The annual exercise review includes developing the exercise scenario based on a review of the Emergency Plan Implementing

Procedures (EIPs). If weaknesses are noted in the EIPs, provisions can be made in the scenario to test these areas. In addition, the Wisconsin Public Service Corporation QA staff carries out a separate review of the annual exercise. Both groups jointly review for technical capability, utilization of equipment and procedures, and interfaces with State and local governments. The only weakness noted (based on comments in Audit 83-066 dated February 2, 1984), was that all reviewers were not knowledgeable of the scenario prior to the exercise. It is recommended that all the reviewers be provided with copies of the scenario prior to the exercise to facilitate their reviews. In addition to the above reviews, the QA staff conducts an emergency plan and EIP's audit every two years. This includes ensuring the plan conforms to the regulations, the EIPs properly implement the plan, and reviewing to determine that periodically scheduled items such as communications tests and drills are being conducted. All audit and review reports were found to contain recommendations where appropriate, and had been distributed to the proper management personnel for review. The recommendations reviewed by the inspector were determined to have been implemented.

Examination of the Emergency Plan determined that the plan does not provide a full description of the scope of the annual review that is implemented to meet the requirements of 10 CFR 50.54(t). It is recommended that the emergency plan be revised to more adequately describe the scope and content of the annual review.

Based on the above review, no violations or deviations were identified.

10. Maintaining Emergency Preparedness

The inspectors reviewed chemistry and health physics drills and records pertaining to training conducted over the last year. NUREG-0654, Revision 1, specifies that Health Physics drills should be conducted semi-annually. The Kewaunee Emergency Plan (Section 8.2.2) requires one annual Radiological Monitoring and Health Physics drill. The only Health Physics drill conducted was the pre-exercise drill on October 11, 1983. It is recommended that the Emergency Plan be revised to require semi-annual Health Physics drills in accordance with NUREG-0654, Section II.N.

Drills involving analysis of inplant liquid sample with actual elevated radiation levels, including use of the post-accident sampling system, is required on an annual basis by the Kewaunee Emergency Plan. Records examined for these drills were not clear as to whether actual drills were done or whether it was classroom type training.

Medical Drills were conducted on March 13, 1984 and January 11, 1983. In both instances the use of the ambulance was simulated. Because of the benefits of realistic training for both the plant and ambulance personnel, it is recommended that the ambulance actually be used during these drills.

The required annual Radiological Monitoring drill was last conducted on March 13, 1983. Fire Drill records revealed adequate and timely drills had been conducted in this area.

Based on the above review, no violations or deviations were identified.

11. Licensee Action on Previously Identified Items Relating to Emergency Preparedness

- a. (Closed) Open Item No. 305/82-23-03: Inventory of equipment and instruments in the SAF. The inspector witnessed the closeout of an inventory of equipment and instruments conducted using Procedure RC-HP-115. Only a few of the less critically-needed supplies were found missing and were promptly replaced. Two emergency foot lockers (called Environmental Team Kits) were located in the SAF. Equipment for the kits was identified on the footlocker lid and included the following: PRM-7, PIC-6A, E-530 with HP-190 survey meters; RAS-1 and Staplex air samplers; high-band two way radios; emergency generators (110V); and full face respirator. The inspector noted that an adequate supply of the equipment and instruments listed above was present and that, where appropriate (radiation survey instruments and air samplers), a current calibration sticker was affixed to the instrument. Several Cutie Pie survey meters were also available for use in the SAF. Procedure EP-ENV-4A was revised to identify the Reuter-Stokes pressurized ion chamber as a backup to the PRM-7 micro-R meters.
- b. (Closed) Open Item No. 305/82-23-07: Procedure change to reflect respirator decontamination capability at the RAF. Procedure EP-RET-2, Step 4.2.17, was modified to require setting up an area for decontamination of respirators at the RAF in the event that the respirator cleaning room is not habitable.
- c. (Closed) Open Item No. 305/82-23-14: Correction of weaknesses in the post-accident primary coolant sampling system procedures and equipment. Inspection Report No. 50-305/83-13 listed four items still needing attention by the licensee: (1) the multi-channel analyzer designated for the HRSS room was not operational, (2) one-liter poly bottles were not located in the HRSS room, (3) several valves on the sample system panels had not been labeled, and (4) the relevant procedure (EP-RET-3C) contained many abbreviations which were not defined.

With respect to multi-channel analyses capability for post-accident samples, the licensee is developing two independent methods, one of which is slated to be fully operational during the fourth quarter of 1984. The method which is not yet operational involves on-line gamma spectrometry of radioactivity in both primary coolant and containment. This method does not involve the collection of a sample. The second method, which is operational, involves the collection of a sample (either diluted or undiluted) via the HRSS, followed by gamma spectral analysis in the RAF laboratory. A multi-channel analyzer was available for this purpose in the RAF laboratory and was observed by the inspector to be in routine use.

With regard to the poly bottles, the inspector noted that the licensee had bottles available in the HRSS room. Procedure RC-C-89 lists equipment to be available for HRSS operation, as well as its location. Sample panel valves referenced in Procedure EP-RET-3C were noted by the inspector to now be labeled.

Although Procedure EP-RET-3C still contains certain abbreviations (acronyms) which are not defined, its companion procedure for use of the HRSS during normal operation (RC-C-205) does define key acronyms for the HRSS.

- d. (Closed) Open Item No. 305/83-13-01: Specific parameters which are observable in the Control Room were not included in the EALs. Recent EPIP revisions have included EAL modifications which include specific parameters including the Containment High Range Radiation Monitor (R-11) and Containment Hydrogen monitor.
- e. (Closed) Open Item No. 305/83-13-02: The Containment High Range Radiation Monitor (R-11) maximum reading was 10^6 cpm (fullscale), while the EAL previously required a reading of 5×10^6 cpm. Recent EAL changes now require a reading of "> offscale."
- f. (Open) Open Item No. 305/83-13-05: Update procedures to assure state and local agencies will be notified within 15 minutes for all emergency class declarations. The licensee has revised EP-AD-7, EP-AD-8, EP-AD-9, and EP-AD-10 (all Revision I) to include a note that emergency notifications to the State of Wisconsin and local governments are to be made within 15 minutes of the classification of the emergency conditions. However, Step 4.1.4 in both EP-AD-9 and EP-AD-10 contained a typographical error that indicated the notification procedure will be completed within 15 minutes after declaring an "Alert" for both the notification of Site Emergency and General Emergency procedures.
- g. (Closed) Open Item No. 305/83-13-06: Add a map to the Emergency Plan showing the location of the EOF. Revision 3 of the Emergency Plan, dated April 16, 1984, was reviewed and Figure C-7 of Appendix C contained a map showing the location of the Kewaunee EOF in the City of Two Rivers.
- h. (Closed) Open Item No. 305/83-13-07: Inability to augment radiation techs within 30 and 60 minutes. The licensee has resolved the problem of being short at least one Radiation Technician when conducting the augmentation drills. The inspector reviewed the records of the drills used to verify augmentation times and determined that the Radiation Technicians responded within the 30 and 60-minute requirement.
- i. (Closed) Open Item No. 305/83-13-08: A deficient area was noted in training attendance and efficiency during the previous year. This problem area was generally due to operations personnel on shift work who did not attend training due to time conflicts. Recent training

program changes require that this annual training be conducted during personnel's scheduled requalification period and not when they are on shift.

- j. (Open) Open Item No 305/83-13-10: Post Accident Sampling System weaknesses. During the 1983 annual exercise (50-305/83-16), the post accident sampling system failed to function properly. The licensee identified the cause of the problem as use of the wrong size sample bottle for sample collection. Procedure EP-RET-3C was clarified at Steps 5.1.5 and 5.4.5 to specify the proper size bottle. A refresher training session was then conducted to emphasize this point. The inspector observed the collection of a diluted reactor coolant sample as part of a walkthrough. Although the sample bottle problem appeared to be corrected, the inspector noted the required 24 ml of initial dilution water (Step 5.1.15, EP-RET-3C) could not be added. Only 16.5 ml could be drained from the burette containing deionized water. Because of this, the standard dilution factor ($1E+8$) could not be used. The procedure did not contain or reference a method for adjusting the dilution factor if the required dilution volume is not obtainable. A step should be added to Procedure EP-RET-3C to permit this adjustment to be made if needed. This item remains open, pending appropriate modification to the referenced procedure.
- k. (Closed) Open Item No. 305/83-13-11: Develop checklist for QA audit. A review of the QA audit program for the annual emergency preparedness exercise determined that a checklist had been developed and used in the 1982 exercise to assist in the exercise review.
- l. (Closed) Open Item No. 305/83-16-02: Apparent lack of beta monitoring capability for use by field teams. One instrument used by the licensee's field teams, the PRM-7 scintillation detector, does not have beta measurement capability. This instrument can only be used for the measurement of radiation exposure rates up to 5 mR/hr. Two other instruments available at the SAF for use by field teams, the PEC-6A and cutie pie ion chambers, do have the capability to measure beta radiation levels. In addition, the licensee has modified Procedure EP-ENV-4A, Step 2.6, to emphasize the proper determination of beta dose rates by field teams.

12. Exit Meeting

The inspectors met with licensee representatives (denoted in Section 1) at the conclusion of the inspection on July 13, 1984. The inspectors summarized the scope and findings of the inspection, including the item on noncompliance.