IE HQ'S File Copy

MAY 04 1982

Docket No. 50-285

Omaha Public Power District
ATTN: Mr. W. C. Jones, Division Manager -
Production Operations
1623 Harney Street
Omaha, Nebraska 68102

Gentlemen:

Subject: Emergency Preparedness Appraisal

To verify that licensees have attained an adequate state of on-site emergency preparedness, the NRC Office of Inspection and Enforcement is conducting special appraisals at each power reactor site. These appraisals are being performed in lieu of certain routine inspections normally conducted in the area of emergency preparedness. The objectives of the appraisal at each facility are to evaluate the overall adequacy and effectiveness of emergency preparedness and to identify areas of weakness that need to be strengthened. We will use the findings from these appraisals as a basis not only for requesting individual licensee action to correct deficiencies and effect improvements, but also for effecting improvements in NRC requirements and guidance.

During the period of December 7 - 16, 1981, the NRC conducted an appraisal of the emergency preparedness program for the Fort Calhoun Station. Areas examined during this appraisal are described in the enclosed report (50-285/81-35). Within these areas, the appraisal team reviewed selected procedures and representative records, inspected emergency facilities and equipment, observed work practices, and interviewed personnel.

The findings of the emergency preparedness appraisal at Fort Calhoun Station indicate that significant weaknesses existed in several areas. These are addressed in Appendix A, "Significant Preparedness Deficiencies," of this letter. Significant deficiencies for which you have made acceptable commitments to resolve were discussed in the Confirmatory Action letter dated December 24, 1981. A copy of the letter, dated December 24, 1981, is attached for your convenience as an attachment to this letter. The findings of this appraisal also indicate that there were areas for improvement in your emergency preparedness program. These are discussed in Appendix B, "Preparedness Improvement Items," of this letter.

In conjunction with the aforementioned appraisal, emergency plans for your facility were reviewed by the Emergency Preparedness Licensing Branch. The results of this review indicate that certain deficiencies exist in your emergency plan. These are discussed in Appendix C, "Emergency Plan Evaluation Report," to this letter.

IE35

OFFICE ▶	EPA	RPB	DDRRPEP	DRA	RA-RIV		
SURNAME ▶	CAHackney:gb	WCSeidle	JGagliardo	KVSeyfrit	JTCollins		
DATE ▶	4/5/82	4/5/82	4/9/82	4/9/82	4/13/82		

NRC FORM 318 (10-80) NRCM 0240 OFFICIAL RECORD COPY

We recognize that an explicit regulatory requirement pertaining to each item identified in Appendices A, B and C may not currently exist. Notwithstanding this, you are requested to submit a written statement within 30 days of the date of this letter, describing your planned actions for improving each of the items identified in Appendix A and the results of your consideration of each of the items in Appendices B and C. This description shall include: (1) steps which have been taken; (2) steps which will be taken; and (3) a schedule for completion of actions for each item. This request is made pursuant to Section 50.54(f) of Part 50, Title 10, Code of Federal Regulations.

This is to inform you that if the deficiencies addressed in the Confirmatory Action letter of December 24, 1981, are not corrected by the commitment dates provided, the Nuclear Regulatory Commission will determine whether the reactor shall be shut down until such deficiencies are remedied or whether other enforcement action is appropriate.

In accordance with 10 CFR 2.790(a), a copy of this letter and the enclosures will be placed in the NRC Public Document Room unless you notify this office, by telephone, within 10 days of the date of this letter and submit written application to withhold information contained therein within 30 days of the date of this letter. Such application must be consistent with the requirements of 2.790(b)(1).

The responses directed by this letter are not subject to the clearance procedures of the Office of Management and Budget as required by the Paperwork Reduction Act of 1980, PL 96-511.

Should you have any questions concerning this appraisal, we will be pleased to discuss them with you.

Sincerely,

Original signed by
John T. Collins

John T. Collins
Regional Administrator

Enclosures:
1. Appendix A, Significant Preparedness Deficiencies
2. Appendix B, Preparedness Improvement Items
3. Appendix C, Emergency Plan Evaluation Report
4. Letter to Omaha Public Power District, dated December 24, 1981
5. NRC Appraisal Report No. 50-285/81-35

OFFICE							
SURNAME							
DATE							

NRC FORM 318 (10-80) NRCM 0240

OFFICIAL RECORD COPY

cc w/enclosures:
S. C. Stevens, Manager
Fort Calhoun Station
P. O. Box 399
Fort Calhoun, Nebraska 68102

bcc to DMB: (IE35)

bcc distrib. to RIV:
RESIDENT INSPECTOR
SECTION CHIEF
KANSAS STATE DEPT. HEALTH
NEBRASKA DEPT. OF HEALTH
J. COLLINS, RIV
C. HACKNEY, RIV

OFFICE ▶							
SURNAME ▶							
DATE ▶							

APPENDIX A

SIGNIFICANT APPRAISAL DEFICIENCIES

The results of the NRC's appraisal of the Fort Calhoun Station (FCS) Emergency Preparedness Program identified a number of significant deficiencies which were discussed in detail with the licensee's senior management on December 16, 1981, and for which commitments were obtained from the licensee for corrective action. A confirmatory letter of the agreements was sent to the licensee on December 24, 1981.

Four areas were identified which had significant deficiencies and the areas are presented below along with the specific finding number(s) from the appraisal report which are covered by each significant deficiency area (references are to the sections in Office of Inspection and Enforcement Appraisal Report No. 50-285/81-35).

Significant Deficiencies

1. On-site Emergency Organization Augmentation

   Related specific findings: 285/81-35-13 (See Section 2.3)

2. Personnel Accountability

   Related specific findings: 285/81-35-55 (See Section 5.4.3.2)
   285/81-35-57 (See Section 5.4.3.3)

3. Emergency Action Levels/Procedure Flow

   Related specific findings: 285/81-35-41 (See Section 5.1)
   285/81-35-45 (See Section 5.2)

4. Respiratory Protection

Related specific findings: 285/81-35-19 (See Section 4.1.1.2)
285/81-35-40 (See Section 4.2.2.1)

APPENDIX B

PREPAREDNESS IMPROVEMENT ITEMS

In addition to the Significant Appraisal Deficiencies identified in Appendix A, the results of the NRC's appraisal of the Fort Calhoun Station (FCS) Emergency Preparedness Program identified the following items as needing consideration for improvement in order to achieve an adequate emergency preparedness program (References are to Sections in the NRC Appraisal Report No. 50-285/81-35):

1. Assign the site representative for the Emergency Preparedness Development Program (285/81-35-01) (See Section 1.6);

2. Develop and implement a program for professional development training for individuals, who are assigned Emergency Planning responsibilities, which will enable them to attain and maintain a state-of-the-art knowledge in the field of emergency preparedness (285/81-35-02) (See Section 1.6);

3. Develop and implement a method to provide substantive input from plant staff, down to the working level, to the development of emergency preparedness plans and procedures (285/81-35-03) (See Section 1.6);

4. Develop and implement explicit selection and qualification criteria for individuals performing emergency preparedness development activities (285/81-35-04) (See Section 1.6);

5. Develop and implement quality assurance procedures to evaluate the effectiveness of the emergency preparedness development training including the professional development program developed for persons assigned emergency preparedness development activities (285/81-35-05) (See Section 1.6);

6. Correct Emergency Plan, EPIPs and EPTs to be consistent with the dated requirements of 10 CFR Part 50, Appendix E, and the guidance contained in NUREG-0654 (Regulatory Guide 1.101) (285/81-35-06) (See Section 1.6);

7. Correct the EP and EPIPs to unambiguously specify, by normal duty title and emergency duty title, all persons assigned to the licensee's On-Site Emergency Organization and Recovery Organization (285/81-35-07) (See Section 2.3);

8. Provide documentation that formal assignments of all persons assigned to the On-Site Emergency Organization and Recovery Organization have been made (285/81-35-08) (See Section 2.3);

9. Remove inconsistencies between the EP and EPIPs including corrections to remove unintended duplication of assigned responsibilities (285/81-35-09) (See Section 2.3);

10. Correct the EP and EPIPs by unambiguously defining the authorities of all individuals assigned to the On-Site Emergency Organization and Recovery Organization (285/81-35-10) (See Section 2.3);

11. Develop and implement specific lines of succession for all positions in the management structure for the various functional response areas of the On-Site Emergency Organization (285/81-35-11) (See Section 2.3);

12. Develop and implement selection and qualification criteria for individuals assigned to perform emergency actions and decisionmaking as members of the On-Site Emergency Organization and Recovery Organization (285/81-35-12) (See Section 2.3);

13. Provide in the Emergency Plan copies of up-to-date letters of agreement or contracts which demonstrate that arrangements have been made with off-site organizations (both commercial and private) to supply specifically defined support or cooperation during an emergency including their authorities, responsibilities, and limits of actions (285/81-35-14) (See Section 2.3);

14. Complete the implementation of all existing EPIPs (285/81-35-15) (See Section 3.0);

15. Develop and implement a program to train all emergency response personnel in the proper use of all equipment which would actually be required to safely perform their assigned tasks under emergency conditions, including walk-through training while wearing full respiratory protection and protective clothing (285/81-35-16) (See Section 3.0);

16. Develop and implement, for the Control Room, a controlled telephone list of personnel and agencies to be contacted during emergencies, including provisions to maintain and verify the phone numbers at least quarterly (285/81-35-17) (See Section 4.1.1.1);

17. Provide radiological monitoring equipment, with both visual and audible alarms, to detect direct radiation and airborne radioactive contamination in the Control Room (285/81-35-18) (See Section 4.1.1.1);

18. Provide permanently installed radiation monitoring equipment, with both visual and audible alarms, to indicate both radioactive airborne contamination and direct radiation in the TSC (285/81-35-20) (See Section 4.1.1.2);

19. Provide adequate communications in the main conference room of the TSC for communicating with the Control Room and the Emergency Operations Facility (285/81-35-21) (See Section 4.1.1.2);

20. Develop or revise existing procedures to reflect the location of the Alternate EOF and directions from the station to the facility (285/81-35-22) (See Section 4.1.1.4);

21. Develop and implement methods and procedures (e.g., seals, minimum stock levels, etc.) to assure that dedicated emergency equipment and supplies are indeed available when needed for emergency response (285/81-35-23) (See Section 4.1.1.4);

22. Develop and implement procedures for reinventory of equipment or supplies when tamper-indicating devices are removed or broken (285/81-35-24) (See Section 4.1.1.4);

23. Upgrade existing personnel decontamination facilities to provide ready access to all necessary decontamination agents at the decontamination room (285/81-35-25) (See Section 4.1.1.4);

24. Provide additional fixed and portable radiological shielding, where practical, to aid in the reduction of exposure to sample and analysis personnel (including sample transport devices) (285/81-35-26) (See Section 4.1.1.5.6);

25. Evaluate capabilities for meeting the 3-hour sample and analysis time frame if the radio-chem lab becomes uninhabitable due to elevated radiation levels (285/81-35-27) (See Section 4.1.1.5.6);

26. Evaluate high-level sample counting limitations of both GeLi systems under present counting geometries (285/81-35-28) (See Section 4.1.1.5.6);

27. Develop and implement procedures for maintaining routine efficiency and calibration checks of the NaI backup counting system at the North Omaha Station (285/81-35-29) (See Section 4.1.1.5.6);

28. Install in the station decontamination area adequate communications for contacting Health Physics personnel (285/81-35-30) (See Section 4.1.2.3);

29. Provide in both decontamination facilities adequate and necessary supplies for personnel decontamination (285/81-35-31) (See Section 4.1.2.3);

30. Provide permanent instructions in both decontamination facilities to contact Health Physics upon determining that the individual(s) are contaminated and provide a communication system to accomplish the notification (285/81-35-32) (See Section 4.1.2.3);

31. The adequacy of the Expanded Support Facilities (Emergency Appraisal Section 4.1.3) will remain an Open Item for future resolution until final plans are prepared and construction authorized by OPPD for those facilities (285/81-35-33) (See Section 4.1.3);

32. Perform an evaluation to determine what additional electrical service would be needed by news media representatives during an emergency and provide such a capability in the MRC (285/81-35-34) (See Section 4.1.4);

33. Replace the small hand-held high range instrument in the Control Room Locker with an extendable probe high range instrument (285/81-35-35) (See Section 4.2.1.1);

34. Develop and implement procedures to calibrate all meteorological instruments and equipment on a quarterly basis (285/81-35-36) (See Section 4.2.1.4);

35. Develop the capability for remote interrogation of the meteorological system by off-site agencies in accordance with Regulatory Guide 1.23, Revision 1 (285/81-35-37) (See Section 4.2.1.4);

36. Provide a detailed description of the dose assessment methodology and how meteorological information is used in that model (285/81-35-38) (See Section 4.2.1.4);

37. Perform an analysis to determine how a release plume from FCS may be modified by terrain induced effects and provide the results of the study in the emergency plan (285/81-35-39) (See Section 4.2.1.4);

38. Correct the EPIPs to identify the individuals by title who have the authority, responsibilities, and qualifications necessary to perform the tasks governed by the procedures (285/81-35-42) (See Section 5.1);

39. Correct the EPIPs to allow only a single individual to perform the procedure or separate all steps to be performed by an individual from the

steps to be performed by other individuals (285/81-35-43) (See Section 5.1);

40. Correct the EPIPs to provide checklists or other methods to ensure that all necessary procedural steps are completed at the proper time (285/81-35-44) (See Section 5.1);

41. Correct the EPIPs to specifically identify those duties and responsibilities which may not be delegated by the EDO (285/81-35-46) (See Section 5.3);

42. Develop and implement procedures to provide adequate forms for the documentation of emergency radiological survey results (285/81-35-47) (See Section 5.4.2.1);

43. Provide a controlled copy of the OI-PAPs for use in the RAD-CHEM Office (285/81-35-48) (See Section 5.4.2.2);

44. Incorporate specific ALARA measures and considerations into the OI-PAPs and CMPs (285/81-35-49) (See Section 5.4.2.2);

45. Correct the OI-PAPs and CMPs to include provisions for labeling, storage, and disposition of sample (285/81-35-50) (See Section 5.4.2.2);

46. Provide the shielded sample transport cart for use as stated in OI-PAP-1 (285/81-35-51) (See Section 5.4.2.2);

47. Take measures to assure habitability of an adequate sample analysis facility under severe accident situations (285/81-35-52) (See Section 5.4.2.2);

48. Evaluate present counting systems for high-level sample counting abilities and limitations (285/81-35-53) (See Section 5.4.2.2);

49. Develop and implement methods to adequately mark assembly areas and the routes to be taken to get to the assembly areas (285/81-35-54) (See Section 5.4.3.2);

50. Correct the EPIPs to reflect the single individual that will receive and account for personnel immediately following the incident and maintain continuous accountability thereafter (285/81-35-56) (See Section 5.4.3.3);

51. Develop and implement specific personnel monitoring and decontamination procedures in the EPIPs which will provide for thorough investigation of any contamination incident and documentation of the results of any decontamination procedure and subsequent bioassay (285/81-35-58) (See Section 5.4.3.4);

52. Develop and implement specific procedures governing the duties, authorities, and responsibilities of Security Personnel during an emergency (285/81-35-59) (See Section 5.4.4);

53. Develop and implement procedures with specific criteria upon which the emergency class may be downgraded and provisions for notification of Federal, State and local officials prior to entering a downgraded mode of emergency response operation (285/81-35-60) (See Section 5.4.6);

54. Include the NRC and FEMA on the list of interfacing organizations in the MRC in Section B, Figure B-4, of the Emergency Response Plan (285/81-35-61) (See Section 5.4.7);

55. Develop and implement formal procedures for radiation monitoring equipment inventory, including acquiring new instruments, retiring old or lost instruments, and instrument calibration due dates (285/81-35-62) (See Section 5.5.1);

56. Review and evaluate the usability of existing procedures and instruments, used during emergencies, for human factors engineering corrections (285/81-35-63) (See Section 5.6);

57. Review all letters of agreement with off-site support organizations to ensure that all are still acceptable and will be honored, and ensure that adequately detailed letters of agreement exist for all organizations the licensee will depend on for aid during an emergency (285/81-35-64) (See Section 6.1); and

58. Ensure that the EALs and their associated response actions are discussed with and agreed on by the licensee, State, and local governmental authorities and develop and implement a method to review the continued acceptability of the EALs and their associated response action with the State and local governmental authorities on an annual basis (285/81-35-65) (See Section 6.1).

APPENDIX C

EMERGENCY PLAN EVALUATION REPORT

on

Fort Calhoun Station
Omaha Public Power District
Emergency Plan Dated October 15, 1981

EVALUATION SUMMARY

The Fort Calhoun Station Plan dated October 15, 1981, was evaluated using the 16 Planning Standards and the 96 supporting criteria in NUREG-0654, Revision 1. The evaluation shows that, of the 16 standards, 8 were satisfied, 7 were satisfied except as noted, and 1 was not satisfied. The rating of unsatisfactory was given to Planning Standard D, Emergency Classification System.

The Planning Standard rated as unsatisfactory was so rated because the Emergency Plan failed to address the substantive points expressed in the Standard and in the evaluation criteria. The Planning Standards rated as satisfactory except as noted were so rated because the Emergency Plan failed to address, provided insufficient information about, or was unclear regarding some of the pertinent points enunciated in the Planning Standards' evaluation criteria. Comments were made on each of the deficiencies noted.

In the pages that follow, findings on each Standard and its evaluation criteria are presented. A synopsis of criteria that are properly addressed is given, an evaluation of the degree of satisfaction provided by the plan is made, and a set of comments noting deficiencies within criteria is provided.

FINDINGS ON STANDARDS & CRITERIA

A. ASSIGNMENT OF RESPONSIBILITY (ORGANIZATIONAL CONTROL)

Planning Standard

Primary responsibilities for emergency response by the nuclear facility licensee, and by State and local organizations within the Emergency Planning Zones have been assigned, the emergency responsibilities of the various supporting organizations have been specifically established, and each principal response organization has staff to respond and to augment its initial response on a continuous basis.

Synopsis:

- The Federal, State, local and private sector organizations that are intended to be part of the overall response organization for Emergency Planning Zones are identified.

- The licensee's concept of operations and its relationship to the total effort is specified.

- The interrelationships among emergency organizations are illustrated in a block diagram.

- The Emergency Duty Officer (Shift Supervisor until relieved by the Recovery Manager) is identified as the individual who shall be in charge of the emergency response.

- 24-hour per day emergency response is provided, including 24-hour per day manning of communications links.

- Written agreements referring to the concept of operations developed between Federal, State and local agencies and other support agencies having an emergency response role within EPZs are included.

- The Administrative Logistics Manager (Manager-Administrative Services) is the individual who will be responsible for assuring continuity of resources.

Evaluation: The plan satisfied Planning Standard A.

B. ON-SITE EMERGENCY ORGANIZATION

Planning Standard

On-shift facility licensee responsibilities for emergency response are unambiguously defined, adequate staffing to provide initial facility accident response in key functional areas is maintained at all times, timely augmentation of response capabilities is available, and the interfaces among various on-site response activities and off-site support and response activities are specified.

Synopsis:

- The on-site emergency organization of plant personnel for all shifts and its relation to the responsibilities and duties of the normal staff complement are specified.

- The Emergency Duty Officer is designated as the individual with the authority to direct and coordinate emergency actions, including making protective action recommendations to off-site authorities.

- A line of succession for the emergency coordinator (EDO) position is identified, as are the conditions under which higher level utility officials will assume this function.

- The functional responsibilities assigned to the emergency coordinator (EDO) are specified, as are the responsibilities that may not be delegated.

- The interfaces between and among the on-site functional areas of emergency activity, licensee headquarters support, local services support, and State and local government response organizations are specified.

- The corporate management, administrative, and technical support personnel who will augment the plant staff are specified.

- The contractor and private organizations that may be requested to provide technical assistance to and augmentation of the emergency organization are specified.

- The services to be provided by local agencies for handling emergencies are identified. Copies of letters of agreement are appended to the plan.

Evaluation: The plan satisfied Planning Standard B except as noted below.

Criterion 5: The levels of on-shift staffing shown in Table B-1 of the plan do not meet the requirements of Table B-1 of NUREG-0654: (a) there should be one Shift Foreman (SRO) on shift rather than the Reactor Operator (RO); the Notification/Communication position should not be provided by a shift person assigned to other functions; (c) for the in-plant surveys, there should be one HP and one Rad/Chem technician; and (d) for in-plant protective actions, there should be two HP technicians. In addition: (a) no times of arrival are given for the staff augmentations; (b) no electrical maintenance personnel additions are provided where two are required; and (c) the total number of staff additions is listed as 26, while the correct total in Table B-1 is 24. The plan provides no statement of the licensee's intention to meet the required staffing by July 1, 1982.

Also the EDO duties do not specify who is responsible to notify the off-site authorities and Sections 2.6.2, 2.6.3, and 2.6.4 do not specifically indicate that the local county authorities will be notified along with the State authorities.

C. EMERGENCY RESPONSE SUPPORT AND RESOURCES

Planning Standard

Arrangements for requesting and effectively using assistance resources have been made, arrangements to accommodate State and local staff at the licensee's near-site Emergency Operations Facility have been made, and other organizations capable of augmenting the planned response have been identified.

Synopsis:

- The Recovery Manager is the authorized OPPD person to request Federal assistance from the DOE-FRMAP or other Federal organizations although this duty should also be performed by the EDO and the Shift Supervisor until the Recovery Manager takes command.

- The expected Federal resources are specified.

- The licensee resources available to support the Federal response are specified.

- OPPD will dispatch representatives to principal governmental EOCs.

- Radiological laboratories, their general capabilities and expected availability, are identified at the Cooper Nuclear Station and at Eberline Laboratories.

- Organizations that can be relied upon in an emergency to provide assistance are identified. Letters of agreement are appended.

Evaluation: The plan satisfies Planning Standard C.

D. EMERGENCY CLASSIFICATION SYSTEM

Planning Standard

A standard emergency classification and action level scheme, the bases of which include facility system and effluent parameters, is in use by the nuclear facility licensee, and State and local response plans call for reliance on information provided by facility licensees for determinations of minimum initial off-site response measures.

Synopsis:

- An emergency classification and initiating condition scheme compatible with Appendix 1, NUREG-0654 has been established.

- Postulated accidents in the FSAR have been addressed.

Evaluation: The plan fails to satisfy Planning Standard D for the following reasons.

Criterion 1: The licensee has apparently interpreted the term "EAL" to mean "initiating condition" inasmuch as he has used initiating conditions as EAL's and has not developed EALs compatible with those in NUREG-0818. The licensee should review applicable portions of the plan and develop EALs for the example initiating conditions in Appendix 1, NUREG-0654 in accordance with criteria in NUREG-0818.

Criterion 2: The following initiating conditions, incorrectly called EALs in the plan, were not addressed:

Unusual Event: 12 and 17.

Alert: 16 and 19.

Site Area: 9, 14 and 17.

General Emergency: 3 and 7.

Also, Section 6.0 indicates that "Only those events which have the clear potential for escalating to a Site Area Emergency warrant prompt notification of offsite authorities." This does not meet either the letter or the intent of the NRC regulations (10 CFR Part 50, Appendix E).

E. NOTIFICATION METHODS AND PROCEDURES

Planning Standard

Procedures have been established for notification by the licensee of State and local response organizations, and for notification of emergency personnel by all response organizations; the content of initial and follow-up messages to response organizations and the public has been established; and means to provide early notification and clear instruction to the populace within the plume exposure pathway Emergency Planning Zone have been established.

Synopsis:

- Procedures are established which describe mutually agreeable bases of notification of response organizations consistent with the emergency classification and action level scheme.

- Procedures for alerting, notifying and mobilizing emergency response personnel are established.

- The contents of the initial emergency messages to be sent from the plant are established.

- Follow-up messages from the facility to off-site authorities, containing appropriate information, are established.

- The administrative and physical means, and the time required for notifying and providing prompt instructions to the public within the plume exposure

pathway EPZ, are established. The licensee states that the proposed early warning network is scheduled for completion by January 1982.

- Written messages to the public, which give instructions with regard to specific protective actions to be taken by occupants of affected areas, have been prepared and will be transmitted by the Emergency News Center based on the severity of the accident and the recommended protective action. However, the existing messages for the public should be corrected to provide specific physical locations (e.g., roads, etc.) to define the affected areas.

Evaluation: The plan satisfies Planning Standard E.

F. EMERGENCY COMMUNICATIONS

Planning Standard

Provisions exist for prompt communications among principal response organizations to emergency personnel and to the public.

Synopsis:

- 24-hour notification to and activation of the State/local emergency response network are provided. Organizational titles and alternates for both ends of the communications link are given.

- Communications with State/local governments within EPZs are provided.

- Communications as needed with Federal emergency response organizations are provided.

- Communications between the nuclear facility, State and local EOCs, and radiological monitoring teams are provided.

- Provisions are made for alerting or activating emergency response personnel.

- Communication by the licensee with NRC Headquarters and NRC Regional Office EOCs is provided; however, the phone numbers listed are incorrect and the licensee has failed to understand that the ENS phone is a direct link to the NRC Incident Response Center in Bethesda, Maryland, and not to the Regional Office in Arlington, Texas.

- Provision is made for a coordinated communication link for fixed and mobile medical support facilities.

- Periodic testings of communications systems are provided.

Evaluation: The plan satisfies Planning Standard F.

G. PUBLIC EDUCATION AND INFORMATION

Planning Standard

Information is made available to the public on a periodic basis on how they will be notified and what their initial actions should be in an emergency (e.g., listening to a local broadcast station and remaining indoors), the principal points of contact with the news media for dissemination of information during an emergency (including the physical location or locations) are established in advance, and procedures for coordinated dissemination of information to the public are established.

Synopsis:

- A coordinated yearly dissemination of information to the public regarding how they will be notified and what their actions should be in an emergency is provided. The appropriate information is included.

- Provisions are made for written material that is to be available in a residence during an emergency and for written material that is likely to be available to any transient population.

- The points of contact and physical locations for use by news media during an emergency are designated.

- Space will be provided at the licensee's EOF (to be completed in 1982) for a limited number of news media representatives.

- The OPPD Division Manager-Public Relations is designated as the licensee's spokesperson.

- Arrangements for timely exchange of information among designated spokespersons are established.

- Provisions have been made for coordinated arrangements for dealing with rumors.

- Annual programs to acquaint news media with the emergency plans, information concerning radiation and points of contact for release of public information in an emergency are provided.

Evaluation: The plan satisfies Planning Standard G.

H. EMERGENCY FACILITIES AND EQUIPMENT

Planning Standard

Adequate emergency facilities and equipment to support the emergency response are provided and maintained.

Synopsis:

- The licensee has established an Operations Support Center (OSC) in the shift supervisor's office, off the control room, and a temporary Technical Support Center (TSC) in the general office area of the Service Building.

- A temporary Emergency Operations Facility (EOF) has been established in an unnamed building at the site boundary fence southwest of the plant entrance. A permanent EOF that will meet NUREG-0696 criteria is being constructed at the North Omaha Power Station, 17 miles south of the Fort Calhoun Station.

- The TSC, OSC and EOF will be activated and staffed in a timely manner when the emergency situation so requires.

- The on-site monitoring systems used to initiate emergency measures have been established and are identified including: geophysical phenomena monitors; process, area, effluent and emergency radiological monitors; process monitors; and fire and combustion detectors.

- Provisions have been made by the licensee to acquire data from or have access to off-site monitoring and analysis equipment including meteorological data from the National Weather Bureau at Epply Airfield, Omaha; seismic information from the Iowa Geological Survey Department; radiological monitoring devices located at specified off-site locations (Figures J-28a, b and c) and laboratory facilities located at the Cooper Nuclear Station and Eberline Laboratories in Chicago.

- Monitoring equipment for off-site use is stored at the EOF.

- Meteorological instrumentation and procedures which satisfy criteria in Appendix 1, NUREG-0654, and provisions to obtain representative current meteorological data from other sources has been provided.

- The plan identifies in Table H1 the location and contents of emergency kits.

- The EOF has been established as the central point for the receipt and analysis of field monitoring data and coordination of sample media.

Evaluation: The plan satisfies Planning Standard H except as noted below.

Criterion 1: Even though the OSC appears to be part of the control room complex (Figure H1) the plan should indicate if the OSC has the same habitability as the control room.

Criterion 5b: The plan does not specifically identify wound, portable monitors, or sampling equipment.

Criterion 6a: The plan does not indicate if hydrologic information is available from any other source than the one indicated in Section I 2.1.3.

Criterion 6b: The plan does not indicate if off-site monitoring devices meet the minimum NRC Radiological Assessment Branch Technical Position for the Environmental Radiological Monitoring Program.

Criterion 9: Cameras are not listed as part of the contents of emergency kits.

Criterion 10: The plan does not categorically address provisions of this criterion for the operation, inventory, calibration, repair, and/or replacement of emergency equipment/instrumentation. Section M2.3.5(7) does state that the Supervisor of Health Physics/Chemistry has responsibility for ensuring optimum operation of radiation/chemistry instruments/equipment.

I. ACCIDENT ASSESSMENT

Planning Standard

Adequate methods, systems, and equipment for assessing and monitoring actual or potential off-site consequences of a radiological emergency condition are in use.

Synopsis:

. The plan states that parameter values and corresponding emergency class are included in the appropriate emergency procedures.

- Parameter values and the corresponding emergency class are included in facility procedures.

- On-site capability and resources to provide initial values and continuing assessment throughout the course of an accident including post-accident sampling, radiation and effluent monitors, in-plant iodine instrumentation, and containment monitoring is addressed.

- The licensee has established methods and techniques for determining the source term of release within plant systems and the magnitude of the release based on system parameters and effluent monitors.

- The relationship between effluent monitor readings and on-site and off-site exposures and contamination for various meteorological conditions has been established.

- The licensee has or will have by the dates imposed by Appendix 2, NUREG-0654, the capability to acquire and evaluate meteorological data sufficient to meet Appendix 2 criteria.

- Provisions of access to meteorological information by the EOF, TSC, control room, an offsite NRC center, and appropriate State agencies have been or are being provided.

- The methodology for determining release rate and/or projected doses if instrumentation is off-scale or inoperable has been established.

- The plan describes the capability and resources for field monitoring within the plume exposure EPZ, including methods, equipment, and expertise necessary to make rapid assessments of actual or potential hazards from liquid or gaseous pathways.

- Provisions have been made for estimating integrated dose from projected or actual dose rates and comparing them with protective action guides.

Evaluation: The plan satisfies Planning Standard I except as noted below.

Criterion 1: Section I-1.0 of the plan does not identify plant system status or effluent parameter values corresponding to initiating conditions in Appendix 1, NUREG-0654 (see Standard D comments). The plan indicates that the kinds of instruments used and their capabilities are in the facility procedures.

Criterion 2: The licensee fails to state in the plan if on-site capabilities and resources defined in the criteria are in accordance with NUREG-0578.

Criterion 9: Section I3.2 implies the capability to detect radioiodine as low as 10-7 mCi/cc. The plan does not, however, contain a definite statement in this regard.

Criterion 10: The relationship of various measured parameters to dose rates for key isotopes (i.e., those in Table 3, page 18, NUREG-0654) is not addressed. Section I2.2.6 refers to OI-PAP-2 "Post-Accident Determination of Isotopic Specific Activities" that is unavailable for comment.

J. PROTECTIVE RESPONSE

Planning Standard

A range of protective actions have been developed for the plume exposure pathway EPZ for emergency workers and the public. Guidelines for the choice of protective actions during an emergency, consistent with Federal guidance, are developed and in place, and protective actions for the ingestion exposure pathway EPZ appropriate to the locale have been developed.

Synopsis:

- The licensee has established the means necessary to warn or advise on-site individuals of an emergency or accident.

- Provisions for evacuation routes and transportation for evacuated on-site individuals have been made.

- The plan provides for radiological monitoring of evacuated on-site personnel including the capability to decontaminate contaminated personnel at assembly locations.

- The licensee has the capability to account for all on-site individuals within 30 minutes from the start of an emergency and continuously thereafter.

- Provisions have been made to supply emergency personnel with protective clothing, respiratory equipment, and radioprotective drugs.

- A mechanism for promptly recommending protective actions for the population at risk to appropriate state and local authorities in accordance with the EPA Manual of Protective Action Guides and Protective Actions for Nuclear Incidents has been established.

- Time estimates for evacuation within the plume exposure EPZ are contained in Tables J4 and 5, and Figures J5, 6, 7, 9, 10.

- The plan contains maps showing evacuation routes, evacuation areas, radiological sampling and monitoring points, relocation centers and shelter areas. Sampling and monitoring points are shown in Table J.9 using designators compatible with those shown in Table J-1, NUREG-0654.

- Maps are included in the plan showing population distribution around the plant by evacuation area and sector format for the states of Nebraska and Iowa.

- The means used to notify all segments of the transient and resident population are in place using sirens and loudspeakers on public vehicles. A siren network scheduled for completion by January 1982 will reach essentially 100% of the population in the plume EPZ (Section E-3.0).

- The bases for the choice of recommended protective actions including protection expected from residential units or other shelters is discussed in the plan.

Evaluation: The plan satisfies Planning Standard J except as noted below.

Criterion 1: The plan does not address the time required to warn or advise individuals of an emergency. There is also no specific discussion of the means used for evacuation of on-site visitors and contractor/construction personnel. In addition, the plan does not address the means used or time required to warn or advise people who may be outside the protected area but inside the owner controlled area.

K. RADIOLOGICAL EXPOSURE CONTROL

Planning Standard

Means for controlling radiological exposures, in an emergency, are established for emergency workers. The means for controlling radiological exposures shall include exposure guidelines consistent with EPA Emergency Worker and Lifesaving Activity Protective Action Guides.

Synopsis:

- The licensee has established on-site exposure guidelines consistent with EPA Emergency Worker and Lifesaving Activity Protective Action Guides for the categories listed in Criterion K-1.

- Advance procedures have been worked out for permitting emergency worker volunteers to receive exposure in excess of 10 CFR 20 limits. The Emergency Coordinator (EDO), Recovery Manager, or Plant Operations Manager is authorized to approve excess exposure.

- The plant has 24-hour-per-day capability to issue dosimeters to emergency workers, read them at appropriate frequencies, and maintain individual dose records.

- Action levels are specified in the plan for determining the need for decontamination. The means for decontamination of personnel, supplies, instruments and equipment, and for waste disposal have been established.

- On-site contamination control measures have been established for controlling access to actual or potentially contaminated areas, on-site water and food, and release of areas and items to normal use.

- The licensee has the capabilities to decontaminate relocated on-site personnel, provide them with clothing, if necessary, and remove radioiodine contamination from the skin.

Evaluation: The plan satisfies Planning Standard K.

L. MEDICAL AND PUBLIC HEALTH SUPPORT

Planning Standard

Arrangements are made for medical services for contaminated injured individuals.

Synopsis:

- Local and backup hospital and medical services having the appropriate capabilities are arranged for.

- On-site first aid capability is provided

- Arrangements have been made to transport victims of radiological accidents to medical support facilities.

Evaluation: The plan satisfies Planning Standard L.

M. RECOVERY AND REENTRY PLANNING AND POST-ACCIDENT OPERATIONS

Planning Standard

General plans for recovery and reentry are developed.

Synopsis:

- General plans and procedures for reentry and recovery are developed and the means are described by which decisions to relax protective measures are reached.

- The structure, functions, and membership of the facility recovery organization are described.

- Means are specified for informing members of the response organizations that a recovery operation is to be initiated.

- A method for periodically estimating total population exposure is established.

Evaluation: The plan satisfies Planning Standard M.

N. EXERCISES AND DRILLS

Planning Standard

Periodic exercises are (will be) conducted to evaluate major portions of emergency response capabilities, periodic drills are (will be) conducted to develop and maintain key skills, and deficiencies identified as a result of exercises or drills are (will be) corrected.

Synopsis:

- An emergency preparedness exercise that simulates an emergency that results in off-site radiological releases is provided.

- A joint exercise to involve mobilization of State and local personnel and resources is provided.

- A critique of the annual exercise by Federal and State observers is provided.

- The scenario for the exercise will be varied each year to provide for testing all elements of the Emergency Plan within a five-year period.

- Required communication drills are provided.

- Fire drills in accordance with the plant technical specifications are provided.

- Required medical drills are provided.

- Required radiological monitoring and health physics drills are included.

- Exercise scenarios include the required information.

- A critique by government observers, resulting in a formal evaluation, is provided.

- Organizational means are established for resolving plan deficiencies identified as the result of a drill or exercise.

Evaluation: The plan satisfies Planning Standard N except as noted below.

Criterion 1a: No reference is made to conducting exercises according to NRC and FEMA rules and specific provisions for conducting critiques as part of drills are not addresssed.

O. RADIOLOGICAL EMERGENCY RESPONSE TRAINING

Planning Standard

Radiological emergency response training is provided to those who may be called on to assist in an emergency.

Synopsis:

- The licensee provides site specific emergency response training to off-site response organizations.

- The training program includes practical drills in addition to classroom training so individuals can demonstrate their ability to perform assigned tasks.

- Personnel assigned to first-aid teams have received Red Cross Multi-Media training.

- Training programs have been established for instructing and qualifying most of the personnel listed under Criterion 4a through j.

- Initial training and retraining has been established for personnel with emergency response responsibilities.

Evaluation: The plan satisfies Planning Standard O except as noted below.

Criterion 1: Although Section 0.7 implies that all off-site response agencies receive training and are trained in basic fundamentals, the plan does not specifically indicate if the response groups listed in footnote 1, page 75, NUREG-0654, will receive the training and instruction noted in the footnote.

Criterion 2: The plan does not state if erroneous performance by a trainee will receive on-the-spot correction by the drill instructor.

Criterion 4i: The plan does not address the training of the licensee's headquarters support personnel.

P. RESPONSIBILITY FOR THE PLANNING EFFORT: DEVELOPMENT, PERIODIC REVIEW AND DISTRIBUTION OF EMERGENCY PLANS

Planning Standard

Responsibilities for plan development and review and for distribution of emergency plans are established, and planners are properly trained.

Synopsis:

- The Supervisor-Chemistry and Radiation Protection provides site representation to the total planning effort.
- The Radiological Health and Emergency Preparedness Manager is designated as the Emergency Preparedness Coordinator.
- Periodic revisions of the plan, as needed, including changes identified by drills and exercises, are provided.
- Approved changes in the emergency response plan will be distributed to all organizations and appropriate individuals.
- Supporting emergency plans are listed.
- Emergency Plan Procedures are listed.
- A table of contents is provided.
- The plan will be reviewed annually, and an independent audit will be conducted biannually.
- The telephone numbers in Emergency Plan Procedures will be updated quarterly.

Evaluation: The plan satisfies Planning Standard P except as noted below.

Criterion 1: No mention is made of training for persons responsible for the planning effort.

Criterion 2: While the site representative to the total planning effort is identified, the corporate individual with overall authority for radiological emergency response planning is not specified.

Criterion 8: Although the presentation of the plan is structured on the sixteen Planning Standards, all of the relevant material for a given Standard is not necessarily contained within the section of the plan devoted to that Standard. Either more complete presentations within individual sections or cross-references should be provided.