William C. Jones
Vice President

Omaha Public Power District
1623 Harney Omaha, Nebraska 68102
402/536-4000

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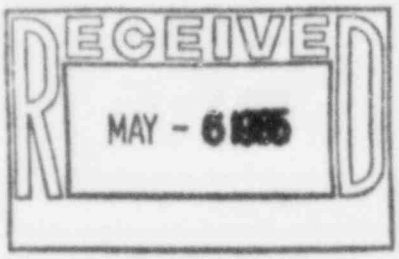

Mr. R. D. Martin, Administrator
U. S. Nuclear Regulatory Commission
Region IV
611 Ryan Plaza Drive, Suite 1000
Arlington, Texas 76011

Reference: Docket No. 50-285

Dear Mr. Martin:

Fort Calhoun Station
1985 Emergency Preparedness Exercise

The Commission requested Omaha Public Power District, by February 9, 1984 correspondence, to provide the description of the scope of the annual emergency exercise and the objectives to be fulfilled by this exercise approximately 75 days prior to the exercise. Accordingly, the subject information is provided in Enclosures 1 and 2 for the upcoming Fort Calhoun Station's 1985 emergency exercise. Copies of this information are also being provided to the Federal Emergency Management Agency and the Director, Division of Emergency Preparedness and Engineering Response.

Sincerely,

W. C. Jones
Vice President

Enclosures

cc: Mr. Patrick J. Breheny
Regional Director
Federal Emergency Management Agency
Region VII
Old Federal Office Building, Room 300
911 Walnut Street
Kansas City, Missouri 64106

Director
Division of Emergency Preparedness
and Engineering Response
Office of Inspection and Enforcement
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

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Enclosure 1

1985 EMERGENCY EXERCISE OBJECTIVES

1. Ensure the activation of the OPPD emergency organization including the Operations Support Center (OSC), Technical Support Center (TSC), and Emergency Operations Facility (EOF) to test the capability of the Initial Response Organization and Emergency Recovery Organization.

2. Ensure that notification to state, local, and regulatory agencies and offsite support groups are performed to test the communication networks and the effectiveness of interface between these agencies.

3. Test the emergency response capabilities of OPPD, state authorities, local support agencies, and appropriate federal agencies.

4. Test the public notification system and require protective actions to be taken for the plume exposure and ingestion pathways. They may include evacuation (simulated or actual) of offsite areas.

5. Exercise the capability to provide periodic public information releases.

6. Test the emergency response capabilities of designated offsite emergency medical facilities and ambulance services.

7. Test the adequacy and content of the Radiological Emergency Respone Plan (RERP).

8. Test the adequacy and content of the Emergency Plan Implementing Procedures (EPIP's).

9. Test the emergency equipment and its use.

10. Test the abilities of operating personnel and emergency response personnel to properly classify emergencies.

11. Test the protective actions for onsite personnel.

12. Test the capabilities of offsite monitor teams to locate monitor points, measure airborne concentrations, and report results.

OPPD Company

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Enclosure 2

1985 EMERGENCY EXERCISE
SCENARIO DESCRIPTION

The 1985 annual emergency exercise at the Fort Calhoun Station will commence with the reactor in operation at a nominal full power. High pressure safety injection pump SI-2B is out-of-service for maintenance. Parts have been received, and it is estimated that the pump will be returned to service by the end of the day. Inspection of fuel discharged from the previous cycle is in progress at the spent fuel pool. The charcoal filter, VA-66 is in service.

A "Notification of Unusual Event" will be declared due to the failure of a safety valve on a chlorine cylinder stored on the loading dock. The chlorine gas is smelled by personnel in the cafeteria which is located above the loading dock. All necessary notifications and actions will be taken in accordance with the Radiological Emergency Response Plan (RERP) and the Emergency Plan Implementing Procedures (EPIP's).

Approximately 1 hour after the declaration of a "Notification of Unusual Event" and while conducting discharged fuel inspections in the auxiliary building using the "CE super-stand," the spent fuel handling machine (FH-12) operator encounters a hoist overload condition when attempting to remove a fuel assembly from the inspection stand. The hoist elevation indicator shows that approximately three feet of upward movement occurred prior to reaching the overload interlock. The CE operator of the inspection stand observes that the switch for clamping the fuel assembly into the inspection stand is still in the "secure" position. The assembly is unclamped and the FH-12 operator lowers the assembly back into the stand. Upon returning the assembly to the stand for examination of potential damage, local alarms are received from both the portable air radiation monitor and the Victoreen VAMP (FH-12 radiation monitor). All personnel evacuate the area. Upon receipt of a high level alarm from the stack radiation monitor RM-062 in the control room, an "Alert" is declared. Approximately 30 minutes after the Alert has been declared, the fuel inspection team returns to the spent fuel pool area wearing self-contained breathing apparatus. Upon examination of the fuel assembly, severe damage to the third and fourth spacer grids is observed. Fuel inspection is terminated following video-taping of the damage.

Approximately one hour after declaration of the "Alert" status, a low level alarm on safety injection tank SI-6D is received in the control room. Operations personnel decide to fill SI-6D using a high pressure safety injection (HPSI) pump via loop injection valve HCV-320, rather than transferring water from one safety injection tank to another. During the process of filling the tank, reactor coolant system (RCS) loop isolation check valve SI-212 fails open with pieces of the valve making their way up the piping and blocking open check valve SI-198 and valve HCV-320. The safety injection line is pressurized to 2100 psia from the RCS loop injection point back to the HPSI pumps. Pressurization of the line results in a rupture downstream of HCV-304 in the safety injection pump room (Room 21). The RCS leak rate is determined to be less than the charging pump capacity. An operator is dispatched to the safety injection pump room to look for the leaks. The operator is burned by leaking steam and is contaminated. He is taken to the UNO Medical Center for treatment. Control room personnel attempt to close HPSI header isolation valve HCV-306, however, the valve is damaged and remains in the open position. HPSI pump SI-2B, -2C discharge, cross-connect valve HCV-304 and loop

injection valve HCV-321 are successfully closed, and HPSI flow out the break (from SI-2A and SI-2C) is prevented. The break size increases and the charging pump capacity is exceeded. A "Site Area Emergency" is declared approximately 2 hours after declaration of an "Alert" due to a loss of coolant accident in which the RCS leak rate exceeds the charging pump capacity. An operator and maintenance personnel are dispatched to containment to attempt to close HCV-320.

Approximately 1 hour after the declaration of a "Site Area Emergency," failure of the two, in-service HPSI pumps (SI-2A and SI-2C) occurs due to the steam and flooding from the rupture in Room 21. A "General Emergency" is declared due to a small break LOCA with failure of the ECCS to perform which may lead to core degradation or melt.

Approximately 1 to 1-1/2 hours after declaration of a "General Emergency," the Reactor Vessel Level Monitoring System (RVLMS) indicates that uncovery of the core is occurring. The high-range stack monitor, RM-063, indicates an increasing level in the radioactive release from the auxiliary building. Approximately 1/2 hour later, after continued attempts to close HCV-320, the valve closes and the LOCA is terminated. A very slow refill of the core begins.

Radiological monitoring teams will be dispatched, both onsite and offsite, concurrent with the main scenario starting with initial indications of a release. Teams will track the plume of released activity and verify dose/concentration projections. The plume will be in Sectors Q and R and later shift to Sectors A and B. This will ensure that both the Iowa and Nebraska response organizations are able to demonstrate their ability to perform the remaining items of their 5 year objectives.

The accident scenario will be moved forward in time to allow radiation levels to decrease below emergency action level guidelines for the "General Emergency" classification which will allow de-escalation to a "Site Area Emergency." The emergency exercise will then be terminated.