

ENERGY NORTHWEST

P.O. Box 968 ■ Richland, Washington 99352-0968

June 17, 2002
GO2-02-101

Docket No. 50-397

U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, D.C. 20555

Gentlemen:

**Subject: COLUMBIA GENERATING STATION OPERATING LICENSE NPF-21
2002 EMERGENCY PREPAREDNESS EXERCISE OBJECTIVES AND
LIMITATIONS**

In accordance with 10 CFR 50.47(b)(14), Energy Northwest hereby submits the Objectives and Limitations for the Columbia Generating Station Exercise to be conducted September 17/18, 2002.

Should you have any questions or desire additional information regarding this matter, please contact me or Jack Pierce at (509) 377-8524.

Respectfully,



D. W. Coleman, Manager
Performance Assessment and Regulatory Programs
(Mail Drop PE20)

Attachment

cc: EW Merscholff - NRC RIV
JB Hickman - NRR
NRC Sr. Resident Inspector - 988C

DL Williams - BPA/1399
TC Poindexter - Winston & Strawn
E Castle- FEMA Region X

A045

**COLUMBIA GENERATING STATION'S BIENNIAL EXERCISE
SEPTEMBER 17-18, 2002**

I. SCOPE

The primary purpose of this Evaluated Exercise, scheduled for September 17-18, 2002, is to demonstrate effective management of the emergency, plant re-entry operations, and ingestion pathway operations with efficient coordination between the Energy Northwest emergency centers and participating offsite agencies.

Emergency response actions during the Evaluated Exercise will include:

- prompt recognition and accurate classification of emergency conditions;
- assessment of onsite/offsite radiological consequences and activities to minimize the offsite consequences;
- notification and mobilization of the emergency response organizations;
- implementation of in-plant corrective actions;
- activation/operation of emergency response facilities and equipment;
- preparation of adequate records to document decisions made and actions taken;
- formulation and recommendation of protective actions for personnel within the area;
- termination of the emergency condition, including a preliminary discussion of the transition into recovery;
- transition to the intermediate phase of emergency response; and
- transfer of MUDAC and JIC leadership to the state of Washington.

Specific objectives to be demonstrated by the Energy Northwest Emergency Response Organization and Facilities, and the Offsite Agencies are identified in the following section.

Timely and proper response by the players will contribute to mitigation of the simulated accident consequences. The exercise will include activation of the Energy Northwest Emergency Operations Facility (EOF), Technical Support Center (TSC), Operations Support Center (OSC), Simulated Control Room, and Joint Information Center (JIC). In addition, several offsite agencies will be participating and activating their emergency facilities. Offsite agency participation will include Washington State Emergency Operations Center; Washington State Department of Health; Oregon State, Benton; Franklin, and Yakima County Emergency Operations Centers; and DOE Richland.

The objectives and limitations are contained in Section II. Specific guidelines on the conduct of the Exercise are described in Section III. Included in the guidelines is a description of the general guidelines, participation, safety precautions, and simulation guidelines. The simulation guidelines describe objective limitations and extent of play of Energy Northwest emergency response personnel.

**COLUMBIA GENERATING STATION'S BIENNIAL EXERCISE
SEPTEMBER 17-18, 2002**

II. OBJECTIVES AND LIMITATIONS

The following general objectives and guidelines have been developed for the 2002 Emergency Preparedness Exercise at Columbia Generating Station.

A. For Columbia Generating Station (Licensee Emergency Response Organization):

1. Demonstrate the ability to accurately assess the accident conditions and implement effective mitigation strategies.
2. Demonstrate the ability to assess the accident conditions and declare the appropriate emergency classifications.
3. Demonstrate notification of state, county, DOE-RL, and NRC.
4. Demonstrate the ability to alert, notify, and mobilize emergency response personnel.
5. Demonstrate adequate initial emergency messages with appropriate content.
6. Demonstrate ability to make follow-up messages to offsite authorities that contain appropriate information.
7. Demonstrate the timely and adequate means to warn or advise individuals in the Protected Area and Owner Controlled Area.
8. Demonstrate the use of primary communications means in all areas:
 - a. State and local 24-hour emergency response networks.
 - b. Contiguous state/local governments within the EPZs.
 - c. Federal emergency response.
 - d. Plant to EOF, State and Local EOCs, and radiological monitoring teams.
 - e. Provision for alerting or activating emergency response personnel in each response organization.
 - f. Provisions for communication by the licensee with NRC headquarters and regional office.
9. Demonstrate reliable primary communication for licensee, local, and state response organizations.
10. Demonstrate reliable voice and data communications between CR, TSC, and EOF.
11. Demonstrate the adequacy of facilities, equipment, displays, and other materials to support emergency operations.

**COLUMBIA GENERATING STATION'S BIENNIAL EXERCISE
SEPTEMBER 17-18, 2002**

12. Demonstrate reliable voice communications within the CR, TSC, and EOF using effective 3-way communications.
13. Demonstrate the ability of facility managers to direct, coordinate, and control the activities of their facilities.
14. Demonstrate the use of established onsite exposure guidelines consistent with EPA Emergency Worker and Lifesaving Protective Action Guides.
15. Demonstrate the ability to monitor and control emergency exposures per exposure guidelines.
16. Demonstrate the capability to determine doses received by emergency personnel.
17. Demonstrate reading of dosimeters at appropriate frequencies and maintenance of records.
18. Demonstrate action levels for determining the need for decontamination.
19. Demonstrate onsite contamination control measures including area access control.
20. Demonstrate the ability to respond to a man down in the Protected Area.
 - Limitation: Victim will not be transported to the hospital during the exercise. The MS-1 portion of the exercise will be conducted as a FEMA evaluation September 19, 2002.
21. Demonstrate for individuals remaining or arriving onsite during the emergency, provision for:
 - a. Individual respiratory protection
 - b. Protective clothing
 - c. KI (Use of KI will be simulated if recommended)
22. Demonstrate the ability to make appropriate Protective Action Recommendations to state and local officials.
23. Demonstrate the ability to augment on-shift capabilities by activating onsite (OSC, TSC) and near site (JIC, EOF) emergency centers in a timely manner.
24. Demonstrate the ability to coordinate and dispatch repair team activities between the TSC and OSC.

**COLUMBIA GENERATING STATION'S BIENNIAL EXERCISE
SEPTEMBER 17-18, 2002**

25. Demonstrate capability to identify second shift staffing.
 - Limitation: Second shift actions are to identify a second shift. However, no shift change will be demonstrated and the paging system will not be activated.
26. Demonstrate the ability to dispatch a representative to principal offsite emergency operations centers.
 - Limitation: WA. State EOC response will be pre-staged.
27. Demonstrate the ability to transfer command and control of the emergency response in a timely manner.
28. Demonstrate the operation of the JIC and availability of space for the media.
29. Demonstrate the ability to brief the media in a clear, accurate, and timely manner.
30. Demonstrate coordinated arrangements for dealing with rumors.
31. Demonstrate the ability of the offsite radiological monitoring field teams to collect and report radiological field data.
32. Demonstrate the ability to perform offsite dose calculations.
33. Demonstrate the ability to show the relationship between effluent monitor readings and offsite exposures for various meteorological conditions:
 - Estimate integrated dose from the projected and actual dose rates and compare these estimates with the Protective Action Guides (PAGs).
34. Demonstrate the ability to account for all individuals onsite at the time of an emergency and ascertain the names of missing individuals within 30 minutes of an emergency and account for all onsite individuals continuously thereafter.
 - Limitation: A complete Protected Area evacuation will not be conducted for accountability purposes. Accountability information will be simulated via a controller.
35. Demonstrate the ability to conduct a post-exercise critique to determine areas requiring additional improvements.
36. Demonstrate preliminary discussions of re-entry, recovery capabilities, and availability of procedures.
37. Demonstrate transfer of MUDAC and JIC leadership to the state of Washington.

**COLUMBIA GENERATING STATION'S BIENNIAL EXERCISE
SEPTEMBER 17-18, 2002**

III. GUIDELINES

To define the scope and extent of participation by organizations and participants, the following guidelines are established in order to meet the objectives listed in Section II of this manual.

A. General Guidelines

1. The exercise will be conducted on September 17-18, 2002. Exercise participants will not possess prior knowledge of the exercise start time and will follow normal routines for that day until mobilized as part of the emergency response.
2. For the exercise, the Control Room staff will operate from the Columbia Generating Station Simulator. Prior to the start of the exercise, a shift briefing will be conducted in the Simulator. The participants will be briefed on the postulated plant conditions and general guidelines for the conduct of the exercise. Following the briefing, the in-plant shift personnel (non-control room staff) will return to their normal workstations.
3. The exercise will commence with a postulated condition necessitating the declaration of an emergency classification and escalate to require other emergency classification declarations.
4. The exercise scenario contains simulated radiological release and plant conditions, which will require consideration of protective actions for the general public.
5. Exercise participants will perform, as appropriate, radiological monitoring and dose assessment activities. Radiological field monitoring teams will be dispatched in order to evaluate communications and monitoring procedures.
6. The JIC will be staffed and activated. Participation by members of the media will be simulated. News bulletins will be made which depict simulated exercise events. However, no exercise press bulletins will actually be released to the public.
7. If exercise scenario accident conditions warrant evacuation of non-essential site personnel, these actions will be simulated.

NOTE

Care shall be taken to assure individuals who may overhear or observe exercise activities are not misled into believing that an actual emergency situation exists.

COLUMBIA GENERATING STATION'S BIENNIAL EXERCISE
SEPTEMBER 17-18, 2002

8. All emergency communications that are part of the exercise shall be clearly identified as part of the exercise. Verbal communications shall be initiated and closed by the statement "This is a drill." Any use of plant alarms (Station Alarm or Fire Alarm) will be preceded by announcing "This is a drill" over the plant page system. Any exercise documentation transmitted via facsimile machine shall have the word "Drill" stamped on them prior to transmittal.
9. Exercise participation will include the following emergency organizations and facilities:

COLUMBIA GENERATING STATION

- On-shift Emergency Organization (Normal Operations, Shift Personnel, Chemistry, Radiation Protection, Maintenance, and Security)
- Onsite Emergency Facilities (TSC and OSC)
- Near site Emergency Facility (EOF)
- Joint Information Center (JIC)

All Columbia Generating Station site personnel are potential participants, since the onsite personnel are expected to report abnormal conditions observed during the exercise, such as smoke, unusual noises, etc. The emergency organization may also call out additional personnel to assist in the response to the simulated emergency conditions.

10. Day one of the exercise will conclude following transfer of MUDAC and JIC leadership to the state of Washington. Following the transfer, day one events will terminate and an in-center critique will be conducted.
11. Following the EOF critique, a briefing will be held to provide the responding offsite agencies with an update on events of day one. This also allows for clarification of roles and responsibilities of the various agencies.
12. Day two events will demonstrate the objectives for the ingestion phase of the event. Day two will cover operations that would actually occur over several days with the state of Washington in the lead.

**COLUMBIA GENERATING STATION'S BIENNIAL EXERCISE
SEPTEMBER 17-18, 2002**

IV. SAFETY PRECAUTIONS

1. Personnel will not, in response to the postulated accident conditions, take any action which jeopardizes plant or personnel safety.
2. Actual plant valves, breakers, and controls shall not be manipulated in response to this exercise. The Columbia Generating Station simulator and equipment mock-ups will be manipulated as necessary to meet specific exercise objectives.
3. In the event an actual emergency occurs during the conduct of this exercise, the drill Emergency Coordinator shall immediately contact the real Shift Manager and coordinate available resources to mitigate the emergency.
 - In the case of an actual fire report, the "operating shift" will provide the initial response.
 - In the case of an actual medical emergency, the "operating shift" will provide the initial response until relieved of that responsibility by the drill shift.
 - The drill clock and exercise activities may be stopped at the discretion of the drill Emergency Coordinator and the real Shift Manager until the actual emergency is assessed and/or under control.
 - Qualified drill participants and drill control team members may be directed to support the real Shift Manager in response to the actual emergency.
4. All personnel who enter the RCA will be radiation worker qualified.
5. Exercise personnel will observe all radiological controls. In the event the data presented in this exercise package indicates lower radiation levels than those actually found in the plant, actions for the actual (higher) readings will be followed. In such instances the Health Physics Controller and the Lead Controller will be notified.
6. ALARA concepts will be observed during the course of the exercise. Activities associated with the performance of the exercise will not occur in areas where personnel will receive significant radiation exposures.

COLUMBIA GENERATING STATION'S BIENNIAL EXERCISE
SEPTEMBER 17-18, 2002

V. SIMULATION GUIDELINES

NOTE

Simulated exercise events will be initiated as indicated in this exercise scenario package under the direction of the Lead Controller. Since all possible participant reactions to the simulated events cannot be anticipated, individual Controllers may initiate simulated situations to preserve the continuity of the overall scenario timeline without prior approval of the Lead Controller. However, individuals are prohibited from creating real or simulated situations that are not provided for in the scenario package and may affect the timeline without prior approval of the Lead Controller.

1. Exercise participants are expected to carry out all responses to the postulated scenario events as if responding to a real emergency. Actions required by Plant Operating Procedures and Emergency Plan Implementing Procedures shall be carried out to the fullest extent possible, unless otherwise directed by the drill control team.
2. Since the exercise will be performed using the Columbia Generating Station Control Room Simulator, exercise plant parameter data and radiological monitoring data will be obtained from the Simulator control panels and the GDS terminals, which will be configured to display the Simulator data.
3. If a failure of the Simulator occurs and the Simulator cannot be recovered in a reasonable period of time, backup data sheets may be used to continue exercise play. The exercise may be terminated at the discretion of the Drill Coordinator.
4. Portable fire extinguishers or other sealed canisters shall not have the seals broken or safety pins removed in response to the postulated scenario events, except when specifically required by instructions provided in this scenario package.
5. Exercise participants will be expected to obtain the proper tools and equipment necessary in responding to the scenario conditions in order to receive credit for their actions to mitigate the consequences of the simulated conditions.
6. The exercise package may include the use of mock-ups to simulate plant equipment. In most situations where mock-ups are available, the exercise participants will be expected to respond to the actual plant equipment and then the drill control team will direct them to the mock-up. Due to the location of some mock-ups, the drill control team may instruct the participants to proceed directly to the mock-up. Specific instructions are provided in the scenario package regarding the use of individual mock-ups.
7. The use of protective clothing will not be simulated by the exercise participants in the plant.

COLUMBIA GENERATING STATION'S BIENNIAL EXERCISE
SEPTEMBER 17-18, 2002

8. To prevent unnecessarily alarming members of the general public who may observe their activities, the use of protective clothing will be simulated by the radiological field monitoring teams.
9. SCBAs will be donned, as required by the scenario conditions, but after initial fitting on the face, hose connections may be disconnected.
10. The use of silver zeolite cartridges when taking air samples will be simulated. Charcoal cartridges will be provided by the drill control team for use in the air samplers.
11. The use of potassium iodide for personnel protection will be simulated, *however, actions associated with dispensing potassium iodide will be demonstrated.*
12. If a decision is made to use the Post Accident Sampling System (PASS), sampling activities will be simulated.
13. No plant equipment will actually be removed from service or tagged out in response to the scenario events. However, all necessary authorizations required by procedures are expected to be obtained prior to the simulation of the tag out.
14. Radiological postings as required by the simulated scenario radiation levels will not be simulated. The drill control team will insure that the postings are appropriately labeled to identify them as part of the drill.
15. If consideration is given to relocating the Primary Access Point (PAP) due to the simulated radiological conditions, this activity will be simulated.
16. The activation of the Emergency Response Data System (ERDS) will *be demonstrated and simulator data will be transmitted to the NRC.*
17. The use of the Automated Notification System (ANS) will not be simulated for initial ERO notifications. Auto-dialer drill scenarios are provided to be used during the response to the simulated exercise events. The ANS will not be used to notify personnel of second shift staffing requirements.