

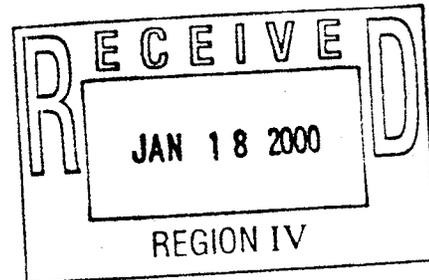


Federal Emergency Management Agency

Region X
130 228th Street, Southwest
Bothell, WA 98021-9796

January 13, 2000

Ellis W. Merschoff, Regional Administrator
U. S. Nuclear Regulatory Commission, Region IV
611 Ryan Plaza Drive, Suite 400
Arlington, Texas 776011-8064



Dear Mr. Merschoff:

Enclosed is the final report for the December 8, 1999, Oregon Ingestion Drill for Energy Northwest's Washington Nuclear Power Plant #2 (WNP-2). The functions and locations evaluated were Oregon Field Sampling Teams, an Oregon Food Control Point, and the Emergency Operations Centers of Morrow and Umatilla Counties. These out-of-sequence demonstrations were conducted in conjunction with WNP-2's Off-Year Exercise.

All of the drill participants exhibited excellent knowledge and skills in demonstrating the Ingestion Phase emergency response activities. There were no Deficiencies and only two Areas Requiring Corrective Actions (ARCAs) were identified as a result of the drill. One Exercise Objective will need to be re-demonstrated and one ARCA from a previous exercise was satisfactorily demonstrated and closed.

The corrective actions planned for the two ARCAs are outlined in the report. FEMA Region X staff will follow-up to ensure the actions are completed satisfactorily. In addition, we have scheduled Umatilla County's re-demonstration of Exercise Objective 27 for July 26, 2000, in conjunction with the Preparation Drill for the WNP-2 Biennial Exercise. As indicated on page 16 of the report, Umatilla County's demonstration of Objective 27, Ingestion Exposure Pathway – Protective Action Implementation, was incomplete. This was primarily due to the limited participation of State and County Agriculture Agency staff.

If you should have any questions, please contact Larry Moore, Training, Exercise, and Evaluation Team Leader, at (425) 487-4743.

Sincerely,

David L. de Courcy
David L. de Courcy
Regional Director

Enclosures:
Final Drill Report
Distribution List

DISTRIBUTION LIST
Final Report, 12/8/99, Oregon Ingestion Drill for WNP-2

Acting Chief,
Emergency Preparedness & Health
Physics Section
Office of Nuclear Reactor Regulation,
IPM-OLHPPS
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Casey Beard, Manager
Morrow County EM
P.O. Box 622
Heppner, OR 97836

Darcy Bergstrom, Administration
Morrow County EM
P.O. Box 622
Heppner, OR 97836

Jim Duff, EM Specialist
Walla Walla County EMD
27 North 2nd Avenue
Walla Walla, WA 99362

Sharon Farquhar, Emergency Mgmt. Spec.
Walla Walla County EMD
27 North 2nd Avenue
Walla Walla, WA 99362

Rick Garza, Acting Deputy Director
Benton County Emergency Services
651 Truman Ave.
Richland, WA 99352

Nick L. Goeveling, Health Physicist
OR Health Division, RAD Control Section
800 N.E. Oregon St. #21 STE 260
Portland, OR 97232

Tom Groat, EM Operations Supervisor
Umatilla County EM
4700 NW Pioneer Place
Pendleton, OR 97801

Mark Henry, WNP-2 REP Prog. Manager
WA DOH/Div. of RAD Protection
222 Atkins Avenue
Richland, WA 99352

Fred Klaus, Emergency Support
Safety & Health Program Leader
Energy Northwest
P.O. Box 968 MD/PE-30
Richland, WA 99352-0968

Myra T. Lee, Director
OR EM – Dept. Of State Police
595 Cottage Street N.E.
Salem, OR 97310

Leon Long
Adams County DEM
2069 West Highway 26
Othello, WA 99344

Sam Lorenz, Director
Grant County DEM
6500 32nd Ave. NE – Suite 911
Moses Lake, WA 98837

Deborah J. Mauldin
Region X Liaison, FEMA HQ PT-CR-RP
500 C Street SW
Washington, DC 20472

Susan May, Head (Nuclear Safety)
WA DOH/Div. of RAD Protection
P.O. Box 47827
Olympia, WA 98504-7827

Deanna Meggs
Nuclear Emergency Preparedness Coord.
OR DOE Nuclear Safety Division
625 Marion Street NE
Salem, OR 97301-3742

DISTRIBUTION LIST
Final Report, 12/8/99, Oregon Ingestion Drill for WNP-2

Timothy C. Messersmith, Manager
Emergency Preparedness
Energy Northwest
P.O. Box 968 MD/PE-30
Richland, WA 99352-0968

Dennis Olson, Director
Umatilla County EM
Courthouse, 216 SE 4th Street
Pendleton, OR 97801

Mary Alice Peterson
Tri-City Special Hazards Program Mngr.
WA EM - Military Department
1315 West 4th Ave.
Kennewick, WA 99335-6018

Ed Quarles, FNF REP Planner
WA EM - Military Department
MS: TA-20 Bldg. 20
Camp Murray, WA 98430-5122

Vanessa E. Quinn, Acting Chief
REP Branch, Chem. & RAD Prep. Div.
FEMA HQ PT-CR-RP
500 C Street S. W. Federal Center Plaza
Washington, DC 20472

John R. Scheer, Director
Franklin County EM
502 Boeing Street
Pasco, WA 99301

Maillian Uphaus, Supervisor
Program Section, WA EM/Military Dept.
MS: TA-20 Bldg. 20
Camp Murray, WA 98430-5122

Anton (Tony) Wentz, Director
Yakima Valley Emergency Management
128 N. 2nd St., Courthouse Room 10
Yakima, WA 98901

James Wood, Emerg. Management Coord.
WA Department of Agriculture
P.O. Box 42560
Olympia, WA 98504 2560

DRILL EVALUATORS

Frank Bold
ARGONNE
4346 Mt. Hukee Avenue
San Diego, CA 92117

Richard Converse
REP EMER Systems Analyst
ARGONNE National Laboratory
3458 E. Florence Court
Seattle, WA 98112

Gerry Gibeault, Consulting Scientist
Special Programs, Mail Stop 2503
INEEL
P.O. Box 1625
Idaho Falls, ID 83415

Bruce Young
ARGONNE National Laboratory
9700 South Cass Ave., Bldg. 900
Argonne, IL 60439

Mike Hammond, Haz. Mat. Specialist
FEMA Region X

FEMA RX RAC Members

Bob Conley, Director
Emerg. Planning Office - Field Operations
USDA-FSIS-OFO-EP
5601 Sunnyside Avenue, Suite 1-2260
Beltsville, MD 20705-5200

John A. Hall (RAD Health)
U.S. Food & Drug Administration
22201 23rd Drive SE
Bothell, WA 98021-4421

Charles Hackney, State Liaison Officer
Nuclear Regulatory Commission, RIV
611 Ryan Plaza Drive, Suite 400
Arlington, TX 76011-8064

DISTRIBUTION LIST
Final Report, 12/8/99, Oregon Ingestion Drill for WNP-2

Jerry Leitch, Reg. RAD Representative
U.S. Environmental Protection Agency
1200 Sixth Avenue, OAQ-107
Seattle, WA 98101

Ken Miles, Reg. RAD Health Rep.
HHS/PHS/FDA - Suite 1180N
Oakland Federal Building
Oakland, CA 94612-5217

Judy Tokarz-Hames, Emergency Mngr.
Department of Energy-RL A6-35
P.O. Box 550
Richland, WA 99352

US Department of Transportation (DOT)
13th Coast Guard District
Attention: Dolph Diemont
Regional Emergency Transportation Rep.
915 Second Avenue - Room 3408
Seattle, WA 98174-1067



Oregon Ingestion Drill Report

Washington Nuclear Plant No. 2 (WNP-2)

Licensee: Energy Northwest

Exercise Date: December 8, 1999

Report Date: January 13, 2000

**FEDERAL EMERGENCY MANAGEMENT AGENCY
REGION X
130 228th Street, SW
Bothell, WA 98021-9796**

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I. EXECUTIVE SUMMARY

This report covers out-of-sequence demonstrations of emergency response actions by Oregon State agencies and counties to satisfy exercise requirements related to Washington Nuclear Plant No. 2 (WNP-2). The demonstrations were evaluated by the Federal Emergency Management Agency (FEMA) as part of WNP-2's Off-Year Drill conducted December 7 & 8, 1999. This report covers only the portions of the drill that were demonstrated for evaluation by FEMA.

Radiological Field Sampling was demonstrated by two teams from the Oregon Health Division (OHD). The field teams collected, bagged, and prepared samples of soil, water, and vegetation for transportation to the Oregon Radiological Laboratory.

Participants in the Food Control Point (FCP) demonstration for WNP-2 included the Oregon Department of Agriculture (ODA), OHD, and the Oregon Department of Transportation (ODOT). Staff from these agencies demonstrated the capability and resources necessary to provide a method of interdicting potentially contaminated agricultural products to prevent them from entering intrastate and interstate commerce. The process of interdicting agricultural products following a radiological emergency requires the identification of the area of suspected contamination, designation of enforceable boundaries, and declaration of an agricultural embargo for products originating in the area. Enforcement is administered through public information, contact with food processors and producers, and by the establishment of FCPs. Enforcement of the embargo was demonstrated with the establishment of a FCP at Oregon State's Umatilla Port of Entry. Collection of agriculture samples from embargoed shipments was also demonstrated at the FCP.

Morrow and Umatilla Counties demonstrated activation of their Emergency Operation Centers (EOC) and support of food control and other Ingestion Pathway response actions, led by Oregon State. The scenario for the drill involved a release of radiation from WNP-2 with depositions projected for portions of Umatilla County, Oregon, as well as Franklin and Walla Walla Counties in Washington.

The drill was held in accordance with FEMA's regulation 44 CFR 350, and FEMA policies and guidance concerning the exercise of State and local Radiological Emergency Response Plans (RERPs) and procedures.

There were no Deficiencies identified as a result of the drill. Two Areas Requiring Corrective Action (ARCA) were identified and one ARCA from a previous exercise was successfully demonstrated and closed.

II. INTRODUCTION

Following the accident at the Three Mile Island Nuclear Station in March of 1979, the President directed FEMA to assume the lead responsibility for all offsite nuclear planning and response. FEMA's Radiological Emergency Preparedness (REP) Program was developed in response to President Carter's Directive of December 7, 1979. The principle guidance for FEMA's REP Program is described in 44 Code of Federal Regulations (CFR) Parts 350, 351 and 352 and NUREG-0654/FEMA REP-1, Revision 1.

FEMA Rule 44 CFR 350 establishes the policies and procedures for FEMA's initial and continued approval of State and local governments' radiological emergency planning and preparedness for commercial nuclear power plants. This approval is contingent, in part, on State and local government participation in joint exercises with licensees.

FEMA's responsibilities in radiological emergency planning for fixed nuclear facilities include the following:

- Taking the lead in offsite emergency planning as well as taking the lead in the review and evaluation of RERPs and procedures developed by State and local governments;
- Determination of whether such plans and procedures can be implemented on the basis of observation and evaluation of exercises of the State and local government plans and procedures;
- Responding to requests by the U.S. Nuclear Regulatory Commission (NRC) pursuant to the Memorandum of Understanding between the NRC and FEMA dated June 17, 1993 (Federal Register, Vol. 58, No. 176, September 14, 1993); and
- Coordinating the activities of other Federal agencies which have responsibilities in the radiological emergency planning process, including the following:
 - U.S. Nuclear Regulatory Commission,
 - U.S. Environmental Protection Agency,
 - U.S. Department of Energy,
 - U.S. Department of Health and Human Services,
 - U.S. Department of Transportation,
 - U.S. Department of Agriculture,
 - U.S. Department of the Interior, and
 - U.S. Food and Drug Administration.

Representatives of the agencies listed above serve on the FEMA Region X Regional Assistance Committee (RAC), which is chaired by FEMA.

The drill was conducted in accordance with the extent of play agreement and drill scenario.

The Extent of Play Agreement between FEMA and the Offsite Response Organizations (OROs) defined the manner in which a particular response function is to be demonstrated by the players.

The agreement was designed to test the capability of the RERPs and procedures to be implemented under simulated emergency conditions. Where no extent of play agreement existed, FEMA evaluated the observed activities as if the plans and procedures were to be followed in their entirety.

The findings presented in this report are based on the evaluations of the Federal Evaluator Team, with final determinations made by the FEMA Region X Regional Assistance Committee (RAC) Chairperson, and approved by the Regional Director.

The criteria utilized in the FEMA evaluation process are contained in:

- FEMA Rule 44 CFR 350.5;
- FEMA/NRC document NUREG-0654/FEMA-REP-1, Rev. 1, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants," November 1980;
- FEMA-REP-14, "Radiological Emergency Preparedness Exercise Manual," September 1991;
- FEMA-REP-15, "Radiological Emergency Preparedness Exercise Evaluation Methodology," September 1991;
- and those expected actions called for by the plans and procedures of the participants.

Section III of this report, entitled "Drill Overview," presents basic information and data relevant to the drills.

Section IV, "Drill Evaluation and Results," presents detailed information on the demonstration of applicable drill objectives at each jurisdiction or function evaluated.

III. DRILL OVERVIEW

This section contains the basic information relevant to the December 8, 1999, drill which tested the offsite emergency response capabilities in the area surrounding WNP-2. This section of the drill report includes descriptions of the plume and ingestion pathway EPZs and a listing of organizations that participated in the drill.

A. Plume Emergency Planning Zone Description

WNP-2 is located at the Northeast corner of the U.S. Department of Energy's (US DOE) Hanford Reservation. It is about ten miles north of the city of Richland and three miles west of the Columbia River. WNP-2 is a boiling water reactor with a turbine generator rated at 1,250 megawatts (peak gross). It is operated by Energy Northwest, formerly known as Washington Public Power Supply System.

The topography of the ten-mile EPZ is relatively flat except for a range of hills southwest of the site and bluffs and rolling hills to the north and to the east of the site along the Columbia River. The land is arid and desert-like except where it is irrigated.

The total resident population of the ten-mile EPZ is estimated at 3,044. Only about 858 of these residents live in Benton County where WNP-2 is located. The other 2,186 residents live across the Columbia River to the east in Franklin County. There are no residents within three miles of the site.

The transient population of the ten-mile EPZ could total 14,945 depending on the time of the year. This estimate is comprised of: 7,926 industrial employees, mostly in Benton County, 4,244 migrant farm workers, mostly in Franklin County, and 2,775 recreationists, mostly along the east bank of the Columbia River and at the Off-Road Vehicle Park on the southwestern edge of the EPZ.

The land use within the Benton County portion of the ten-mile EPZ is predominantly vacant except for scattered industrial sites, recreational sites, and some residents on the southern edge of the EPZ. The land use within the Franklin County portion of the EPZ is predominantly diversified agricultural production facilitated by irrigation. There are six recreation areas within the EPZ: Horn Rapids Park, Horn Rapids Off-Road Vehicle Park and Rattlesnake Mountain Shooting Facility in Benton County; the Wahluke Hunting areas and Ringold Fishing Area in Franklin County; and the Columbia River.

B. Ingestion Pathway Emergency Planning Zone

The fifty-mile Ingestion Pathway EPZ encompasses all or parts of eight counties in Washington State, two counties in Oregon, and the northeast corner of the Yakima Indian Reservation. The eight Washington Counties are Adams, Benton, Franklin, Grant, Kittitas, Klickitat, Walla Walla, and Yakima. Since only small and unpopulated portions of Kittitas and Klickitat Counties are within the fifty-mile EPZ, these counties are not active participants in the WNP-2 Offsite Radiological Emergency Preparedness Program. Likewise, the Yakima Tribal Nation is not an active participant. South of WNP-2, the fifty-mile EPZ extend approximately 15 miles into the Oregon counties of Morrow and Umatilla.

The topography of the fifty-mile Ingestion Pathway EPZ is similar to that of the ten-mile EPZ. The land use is predominantly diversified agricultural production facilitated by irrigation. However, the fifty-mile EPZ also includes a number of cities and towns, as well as major transportation routes.

The largest resident population within the fifty-mile EPZ is south and southeast of WNP-2 in the Tri-Cities of Kennewick and Richland, in Benton County, and Pasco, in Franklin County. Their combined population is approximately 116,000.

Other population centers within the fifty-mile EPZ include the cities of Moses Lake, approximately 14,760 residents, at the north edge of the EPZ in Grant County, Washington; Sunnyside, approximately 12,500 residents, west of WNP-2 in Yakima County, Washington; and Hermiston, approximately 11,500 residents, south of WNP-2 in Umatilla County, Oregon.

Major transportation routes that cross through the fifty-mile EPZ include: Interstate Highway 90, north of WNP-2 in Grant County; Interstate Highways 82, west of WNP-2 and extending south into Oregon; Interstate Highway 84, south of WNP-2 in Oregon; and State Route 395, in Adams, Benton, and Franklin Counties. Significant amounts of wheat and other products are shipped by barge on the Columbia and Snake Rivers which cross through the fifty-mile EPZ. The Tri-Cities Airport in Pasco, Washington serves as the regional airport for much of the population within the fifty-mile EPZ. The airport is approximately 17 miles southeast of WNP-2.

C. Drill Participants

The following agencies, organizations, and units of government participated in the Oregon Ingestion Drill, on December 8, 1999.

STATE OF OREGON

- Oregon Office of Energy
- Oregon Department of Agriculture
- Oregon Health Division
- Oregon Emergency Management
- Oregon Department of Transportation

SUPPORT JURISDICTIONS

- Morrow County Commissioners
- Morrow County Emergency Management
- Morrow County Sheriff's Department
- Morrow County Agriculture Extension Office

- Umatilla County Commissioners
- Umatilla County Emergency Management
- Umatilla County Sheriff's Department

IV. DRILL EVALUATION AND RESULTS

Contained in this section are the results and findings of the evaluation of all jurisdictions and functional entities that participated in the FEMA evaluated portions of the December 8, 1999 drill. Their purpose was to test selected parts of the offsite emergency response capabilities of State and local governments in the 50-mile EPZ surrounding WNP-2.

Each jurisdiction and functional entity was evaluated on the basis of its demonstration of criteria delineated in drill objectives contained in FEMA-REP-14, REP Exercise Manual, dated September 1991. Detailed information on the drill objectives and extent of play agreement used in the drill are found in Appendix 3 of this report.

A. Status of Location or Function Evaluated

This subsection provides information on the evaluation of each participating jurisdiction and functional entity in a jurisdiction based format. Presented below is a definition of the terms used in this subsection relative to objective demonstration status.

- **Met** – Listing of the demonstrated exercise objectives under which no Deficiencies or ARCAs were assessed during this drill and under which no ARCAs assessed during prior drills remain unresolved.
- **Deficiency** – Listing of the demonstrated exercise objectives under which one or more Deficiencies was assessed during this drill. Included is a description of each Deficiency and recommended corrective actions.
- **Area Requiring Corrective Actions** – Listing of the demonstrated exercise objectives under which one or more ARCAs were assessed during the current drill or ARCAs assessed during prior drills remain unresolved. Included is a description of the ARCAs assessed during this drill and the recommended corrective action to be demonstrated before or during the next drill for these jurisdictions.
- **Not Demonstrated** – Listing of the exercise objectives not demonstrated as scheduled during this drill, and the reason they were not demonstrated.
- **Prior ARCAs – Resolved** – Descriptions of ARCAs assessed during previous drills that were resolved in this drill, and the corrective actions demonstrated.
- **Prior ARCAs – Unresolved** – Descriptions of ARCAs assessed during prior drills that were not resolved in this drill. Included is the reason the ARCA remains unresolved, and recommended corrective actions to be demonstrated before or during the next drill for these jurisdictions.

The following are definitions of the two types of exercise issues.

- A **Deficiency** is defined in FEMA-REP-14 as "...an observed or identified inadequacy of organizational performance in an exercise that could cause a finding that offsite emergency preparedness is not adequate to provide reasonable assurance that appropriate protective measures can be taken in the event of a radiological emergency to protect the health and safety of the public living in the vicinity of a nuclear power plant."
- An **ARCA** is defined in FEMA-REP-14 as "...an observed or identified inadequacy of organizational performance in an exercise that is not considered, by itself, to adversely impact public health and safety."

FEMA has developed a standardized system for numbering exercise issues (Deficiencies and ARCAs). This system is used to achieve consistency in numbering exercise issues among FEMA Regions and site-specific exercise reports within each Region. It is also used to expedite tracking of exercise issues on a nationwide basis.

The identifying number for Deficiencies and ARCAs includes the following elements with each element separated by a hyphen (-).

- **Plant Site Identifier** – A two-digit number corresponding to the Utility Billable Plant Site Codes.
- **Exercise Year** – The last two digits of the year the exercise was conducted.
- **Objective Number** – A two-digit number corresponding to the objective numbers in FEMA-REP-14.
- **Issue Classification Identifier** – (D = Deficiency, A = ARCA). Only Deficiencies and ARCAs are included in exercise reports.
- **Exercise Issue Identification Number** – A separate two-digit indexing number assigned to each issue identified in the exercise.

1. RADIOLOGICAL FIELD SAMPLING TEAMS

a. MET: Objectives 5 and 24

Two Radiological Field Sampling Teams of the Oregon Health Division successfully demonstrated the ability to collect environmental samples and prepare them for transportation to a laboratory for analysis. The field teams pre-staged at the Hermiston Safety Center, as specified in the extent of play agreement.

Team members began the drill by inventorying their sampling equipment and testing the operation of their radiation monitoring instruments. In an actual event, the teams would have been dispatched from Portland with the necessary equipment.

Each field team was equipped with a Ludlum Model 19 microR meter, a Ludlum Model 12 count rate meter with a pancake G-M detector, and an Eberline Model PIC-6A portable ion chamber survey meter. Instrument tests were performed on the Ludlum Model 12 and 19 instruments. These tests included a battery check and observing the survey meter deflection in response to a Coleman lantern mantel. The Eberline instruments were not tested or used in the drill. Current calibration labels were affixed to all the instruments issued to both field teams.

After verifying that all the necessary sampling equipment was on hand, each team was dispatched to obtain soil, water, and vegetation samples. The teams were directed to pre-determined locations specified in maps provided to them. Cellular telephones served as the primary means of communication for the field teams. As stated in procedures, the teams would have used pay telephones for back-up communications, if needed. Shortly after arriving at their assigned sample location, each team measured background radiation levels using the microR meter. Documents provided to the teams included the normal background radiation levels for the sampling sites. When compared to the historical data, the current readings indicated little or no radioactive contamination in the area.

The drill included a limited demonstration of emergency worker (EW) exposure control for the field team personnel. According to the extent of play agreement, the field teams were tasked with taking environmental samples in areas that were likely to have no radiological contamination, or very low levels. For this reason, the field team members were not issued direct reading dosimeters (DRD). This is also consistent with the Oregon Health Division procedures which indicate that emergency workers responding to a WNP-2 event will be issued EW kits (which include DRDs), only when they are assigned to duty in Washington State. Each field team member possessed a permanently assigned thermoluminescent dosimeter (TLD), which is processed monthly. Additional TLDs were available at the Safety Center, if needed.

Though not applicable to the demonstration, the team members correctly stated that the turn-back limit specified in the Oregon Health procedures is 300 mR/h and that the radiation exposure call-in level is 3 R, as read on a DRD. They also understood when and why emergency workers might be directed to take potassium iodide.

After the required samples had been collected, double bagged, and labeled, both field teams returned to the Hermiston Safety Center. The drill terminated when the samples were delivered to a simulated Oregon State Police Officer staged at the Safety Center.

Throughout the drill, sampling activities were consistently performed according to the Oregon Health Division procedures. In general, both field teams used good sample gathering techniques and paid close attention to contamination control. However, team members did not routinely monitor either themselves or their samples for contamination. In addition, the procedures specified and followed for chain-of-custody of field samples are in need of some improvements. These Plan Issues will be detailed in separate correspondence to Oregon State officials.

All activities described in the demonstration criteria for Objectives 5 and 24 were carried out in accordance with the plan, unless deviations were provided for in the extent of play agreement.

- b. DEFICIENCY: NONE**
- c. AREAS REQUIRING CORRECTIVE ACTION: NONE**
- d. NOT DEMONSTRATED: NONE**
- e. PRIOR ARCAs-RESOLVED: NONE**
- f. PRIOR ARCAs-UNRESOLVED: NONE**

2. FOOD CONTROL POINT

a. MET: Objective 27

The ability to establish a Food Control Point (FCP) was successfully demonstrated by personnel of the Oregon Department of Agriculture (ODA), Oregon Department of Transportation (ODOT), and Oregon Health Division (OHD). The FCP was established at the Umatilla Port of Entry. This facility is located just west of Interstate Highway 82 on the Oregon side of the Columbia River. All trucks entering Oregon from Washington using I-82 can be stopped at this location.

Prior to establishing the FCP, the Team Leader briefed the staff on the procedures to be followed. A tractor-trailer truck carrying a load of potatoes was used for the FCP demonstration. The driver was given a map of the Food Control Area (FCA) to determine if the load came from within the FCA. When it was established that the potatoes came from the FCA, the driver, interior of the cab, and exterior of the truck were monitored. The survey instrument used was a Ludlum Model 12 Electronics with a Ludlum Model 44-9 thin window probe. The instrument had been calibrated November 12, 1999, and had been checked for proper operation with a radioactive source. Monitoring of the driver and the truck was accomplished in an effective and efficient manner. A "Food Control Point Truck Form" was completed and given to the driver. Since there was no measurable activity above natural background, the driver was directed to take the truck to the Truck Inspection Bay, which is a covered facility.

Upon arrival in the Truck Inspection Bay, the procedure for sampling the load and sending samples to the Oregon State Radiological Laboratory for analysis was described in detail by the FCP personnel. The driver was then directed to park the truck in a holding area.

The sample results, indicating that the load was contaminated, were reported to the FCP by Controller inject. The driver was given a "Order, Agreement and/or Release from Embargo" form and instructed to return the load to where it originated. A second load was simulated to be uncontaminated and the truck was released.

Two ODOT Motor Carrier Enforcement Officers participated as simulated State Police at the FCP. The ODOT officers have pursuit vehicles and arrest and ticketing authority.

The FCP personnel were each issued a thermoluminescent dosimeter (TLD). The TLD serial number, user's name, date of birth, Social Security number, Agency, telephone number, start date/time and end date/time were entered on a "Food Control Point Dose Control Form" for later assignment of dose. However, no direct-reading dosimeters (DRDs) were issued, as required by "Oregon Department of Agriculture Procedures for Radiological Emergency Response."

Except as noted above, all activities described in the demonstration criteria for Objectives 5 and 27 were carried out in accordance with the plan, unless deviations were provided for in the extent of play agreement.

b. DEFICIENCY: NONE

c. **AREAS REQUIRING CORRECTIVE ACTION:**

Issue No.: 69-99-05-A-01

Description of Issue: Direct Reading Dosimeters were not issued to personnel assigned to the Food Control Point, as required by ODA procedures. The "Oregon Department of Agriculture Procedures for Radiological Emergency Response," July 1999, states on page 21 that "All personnel staffing a FPC shall have an Emergency Worker Kit." The "Food Control Point Checklist," on page 22 of the ODA procedures, states "Every half-hour, check your pocket dosimeter and write the reading on the Dose Control Form." There is no place to enter a DRD reading on the Dose Control Form. In addition, the accumulated dose could not be determined without a DRD.

In apparent contradiction to the ODA Guidelines, "Oregon State Health Division Procedures," July 1999, indicates on page OHD: A-1, that the Health Division is responsible to "Distribute radiation dosimeters and acquire potassium iodide drug to state emergency workers if they are requested to enter Washington." (NUREG-0654, K.3.a, N.1.a)

Recommendation: Resolve or clarify the apparent conflict between the ODA and OHD procedures concerning dosimetry for FCP personnel and train the personnel on the revised procedures. If DRDs are to be issued to FCP personnel, provide a place on the Food Control Point Dose Control Form for entering the DRD readings. If FCP personnel are to receive only TLDs, additional exposure control measures must be adopted to ensure that exposures received by these emergency workers are as low as reasonably achievable.

Schedule of Corrective Actions: Oregon State Health division will revise its procedures to be consistent with the Oregon Department of Agriculture procedures. Oregon Health field team members responding to a Food Control Point will now be issued DRDs. Oregon Department of agriculture will revise the Dose Control Form to allow responders a place to enter a DRD reading every half-hour. Training will be conducted to familiarize responders with the new changes. Milestone date: July 26, 2000.

d. **NOT DEMONSTRATED: NONE**

e. **PRIOR ARCAs-RESOLVED: NONE**

f. **PRIOR ARCAs-UNRESOLVED: NONE**

3. MORROW COUNTY EMERGENCY OPERATIONS CENTER (EOC)

This facility is located at 325 Willow View Drive, Heppner, Oregon.

a. MET: Objectives 1, 2, 3, 4, 11, 12, 13 and 27

Morrow County personnel successfully demonstrated the ability to alert and mobilize staff to activate and operate their EOC in response to an incident at WNP-2. The EOC staff also demonstrated their ability to communicate and coordinate with other response organizations, disseminate emergency information to the public, and implement protective actions for the ingestion exposure pathway.

The drill began at 0820 for Morrow County, when they received notification of the General Emergency declaration at WNP-2. EOC staff were quickly alerted and the EOC was declared operational at 0900.

The Morrow County EOC is a dedicated facility located in a new addition to the building shared by the Morrow County Sheriffs Department and Morrow County Emergency Management. Although some work in the new EOC remained to be completed at the time of the drill, it was more than adequate to support emergency operations, with appropriate space, furnishings, lighting, restrooms, ventilation, and telephones. Maps and displays in the EOC provided good information summary and tracking capability for management decision making. Status boards were prominently displayed and promptly posted with current and accurate information. This clears prior ARCA MO-94-1.

The Morrow County Director of Emergency Management was effective in providing direction and control for the County's response effort. Staff briefings were held on a regular basis and updates of important information were provided in a timely manner. Frequent status reviews of action were held to ensure that no required actions or responses were overlooked.

Communication systems were available, operated properly, and communication links were established with all appropriate locations. During the drill, Morrow County EOC staff communicated with the Oregon ECC, the Umatilla County EOC, WNP-2, and local municipalities within Morrow County. Communications equipment demonstrated included the primary telephone, (seven commercial lines), RACES and the local fire and rescue radio system, FEMIS, and facsimile machines. There were no breakdowns in communications or delays in communicating with other organizations.

The Morrow County EOC was the designated Media Center and one Public Information Officer (PIO) was assigned the responsibility for the development of media releases. The PIO issued one news release, which was distributed and available to any media. The Extent of Play Agreement allowed Morrow County to simulate news briefing. The PIO simulated conducting one media briefing.

Rumor control responsibilities are shared among all the responders in the EOC and were satisfactorily demonstrated. The PIO and other EOC responders were provided with current copies of the State and Utility press releases and all ECL status and other pertinent information concerning the State and local response to the emergency.

The ability to implement protective actions for the ingestion exposure pathway was adequately demonstrated by Morrow County EOC responders. Upon receiving the footprint of the food control area, it was evident that Morrow County's role would be to support the State's embargo of agriculture products from Washington State, since none of Morrow County was within in the footprint.

The Morrow County agricultural resource database, which is located on a CSEPP computer, was not available due to the construction. However, the extent of play agreement granted an exception for this situation. A small tri-fold brochure explaining basic hazard information concerning WNP-2 was available for distribution to individuals and organizations within the ingestion exposure pathway EPZ.

Morrow County was in contact with the Oregon ECC and the Umatilla County EOC in discussions over the location and establishment of FCPs and traffic/access control points. With no potential for contamination within Morrow County, no protective actions were required.

All activities described in the demonstration criteria for Objectives 1, 2, 3, 4, 11, 12, 13 and 27 were carried out in accordance with the plan, unless deviations were provided for in the extent of play agreement.

- b. **DEFICIENCY: NONE**
- c. **AREAS REQUIRING CORRECTIVE ACTION: NONE**
- d. **NOT DEMONSTRATED: NONE**
- e. **PRIOR ARCAs-RESOLVED:**

Issue No.: MO-94-1

Description: Status board not updated.

Corrective Action Demonstrated: The Morrow County EOC now has status board for WNP-2 or Hanford Site events, as well as a WNP-2/Hanford Ingestion Pathway EPZ map. Throughout the drill, the EOC staff promptly and accurately posted the event classification and other key information on the status board, following receipt of significant changes. The ARCA is now closed.

- f. **PRIOR ARCAs-UNRESOLVED: NONE**

4. **UMATILLA COUNTY EMERGENCY OPERATIONS CENTER (EOC)**

This facility is located at 4700 NW Pioneer Place, Pendleton, Oregon.

a. **MET: Objectives 1, 2, 3, 4, 11 and 13**

Umatilla County personnel successfully demonstrated the ability to alert and mobilize staff to activate and operate their EOC in response to an incident at WNP-2. The EOC staff also demonstrated their ability to communicate and coordinate with other response organizations and to disseminate emergency information to the public. However, the demonstration of their ability to implement protective actions for the ingestion exposure pathway was incomplete.

At 0807, the Operations Supervisor received a telephone call from the Oregon ECC informing him of the General Emergency declaration at WNP-2. This was followed by a FAX of the CNF form at 0812. With the exception of the Emergency Management Director (EMD) and the County Commissioner, all personnel notified to report to the EOC were already in the EOC building, since this is their normal work location. The EMD, whose office is in another building, was notified by telephone and pager and reported to the EOC at 0836. The County Commissioner received a briefing on the situation by telephone at 0820 and reported to the EOC at 0856. The EOC is a dedicated facility and is maintained in a high state of readiness. Therefore, little effort was needed to make the facility ready for emergency operations. The EOC was declared operational at 0843.

Staff at the Umatilla County EOC demonstrated that the facility, equipment, displays, and work environment are more than adequate to support the County's response to an emergency at WNP-2. The EOC staff also demonstrated their ability to make appropriate use of their modern new facility and its equipment in their response to the drill scenario. The Umatilla County Sheriff's Department provided access control for the EOC soon after it was activated.

The County Commissioner was effectively in charge of the emergency response for Umatilla County. He was ably assisted by the County Emergency Management Director, the EOC Coordinator, Public Information Officer, and others. Staff briefings were conducted every 30 minutes or sooner when significant new information was received. For the most part, the Commissioner and other staff in the EOC were pro-active in their discussions, decisions, coordination with other jurisdictions, and implementation of protective actions. Soon after notification of the release, strategies were discussed for establishing Food Control Points and notifying the public concerning precautionary protective actions for food products.

Umatilla County's demonstration of implementing protective actions for the Ingestion Exposure Pathway (FEMA Exercise Objective 27) was incomplete. Notifications were not made (or simulated) to the major agricultural producers or food processors to take protective actions. At 1015 the PIO developed press release #1 aimed at the "agricultural community" and included the agriculture brochure as an attachment. However, the press release did not advise the public to implement the protective actions described in the brochure.

The agriculture data and contact information is maintained by the Oregon Department of Agriculture (ODA) and the Umatilla County Agriculture Extension Office, which have the responsibility to notify the agriculture community about protective action decisions. However,

the Umatilla County Agriculture Extension Office did not participate in the drill and ODA did not participate at the Oregon State Emergency Coordinating Center (ECC) during the drill.

The ability to communicate with all appropriate locations was demonstrated by staff at the Umatilla County EOC. Initial notification of EOC staff was accomplished quickly with a group pager message. The joint location of the EOC and 911 Dispatch Center facilitates the EOC's ability to rapidly communicate with many agencies and field units. The Dispatch Center also provides a 24-hour communication link for the EOC. The ARES/RACES operator successfully demonstrated the EOC's back-up communication's capability by sending a drill message to the Morrow County EOC by VHF packet radio.

At 1015 the PIO developed press release #1 aimed at the "agricultural community" and included the agriculture brochure as an attachment. However, the press release did not advise the public to implement the protective actions described in the brochure. The PIO simulated making calls to ensure that a supply of the brochures was available at Pendleton Grain Growers outlets in Pendleton, Hermiston, and Milton-Freewater, and at radio stations KOHU in Hermiston, and KUMA in Pendleton. The availability of brochures at these locations was also publicized in a joint Morrow and Umatilla County press release.

Umatilla County simulated the conduct of one media briefing and issued three press releases during the drill. The briefing was held in the Joint Information Center located in a room adjacent to the County EOC. The briefing began at 1103 and was conducted by the PIO. The County Commissioner also made a statement.

During the briefing, the PIO stated that there was no need for Umatilla County residents to shelter or evacuate, that the county was awaiting the results of field monitoring to determine what precautionary measures were necessary, and that the ODA would notify residents of any precautions that needed to be taken. The PIO also passed out copies of the FCA map that had just been received from the WNP-2 EOF. Since the geo-political boundaries had not yet been established and approved for the recommended FCA, release of the map to the media was premature.

The press releases were developed by the PIO and circulated in draft form both inside the EOC and externally to Morrow County and the Oregon ECC in Salem. Suggested changes were incorporated and the press release was issued in final form. Copies of the releases were retained and made available to the staff. The lack of identification to distinguish draft press releases from the finals was noted as a potential source of confusion. However, the situation did not appear to cause any confusion or result in any misinformation during the drill.

For this drill, the county was to demonstrate rumor control by referring callers to either the Oregon ECC or the WNP-2 JIC, depending on the nature of the call. Approximately six calls were received by the PIO during the drill. In most cases, callers were inquiring about Oregon's response to the emergency. The callers were instructed to call the Oregon ECC at (503) 373-7872. In one case, a caller was a rancher wanting to know what to do with his livestock. The PIO used information contained in the Rumor Control Manual to answer the caller's question. This manual is well organized and appears to be an excellent resource for use in answering calls from the public.

Except as noted, all activities described in the demonstration criteria for Objectives 1, 2, 3, 4, 11, 12, 13 and 27 were carried out in accordance with the plan, unless deviations were provided for in the Extent of Play Agreement.

b. **DEFICIENCY: NONE**

c. **AREAS REQUIRING CORRECTIVE ACTION:**

Issue No.: 69-99-12-A-02

Description of Issue: Potentially confusing information was released to the media. During the simulated press conference, the PIO passed out the FCA map that had been received from the WNP-2 EOF. The map was distributed without comment. The county had received the map only moments earlier and had not yet realized that it was only the recommended FCA for which geo-political boundaries had to be coordinated and approved. Media representatives present at such a briefing would undoubtedly have questions about what such a map represented, and if the county officials were unable to adequately explain its purpose, their credibility would suffer. (NUREG-0654, E.7)

Recommended Corrective Action: Ensure that information issued is clearly understandable to the media. Be prepared to explain the significance of information disseminated.

Schedule of Corrective Actions: The Oregon Office of Energy will provide training to Umatilla County Emergency Management staff to ensure that information issued to the media is clearly understandable. Milestone date: July 2000.

d. **NOT DEMONSTRATED:** Objective 27, Ingestion Exposure Pathway – Protective Action Implementation

Description: Notification to major agriculture producers and food processors in the area to take protective actions was not demonstrated. In addition, distribution of information on precautionary protective actions for food and agriculture products to residents within the Umatilla County portion of the 50-mile Ingestion EPZ was not adequately demonstrated. The re-demonstration of Objective 27 must include appropriate staff at the Umatilla County EOC, the Umatilla County Agricultural Extension Office, and appropriate staff at the Oregon ECC, including representatives of Oregon Energy and ODA.

Schedule of Corrective Actions: The Oregon Office of Energy and ODA will train the Umatilla County Extension Agents on the responsibilities of supporting Umatilla County Emergency Management during a radiological emergency. Oregon Energy will also provide training to Umatilla County Emergency Management staff on the process of establishing a Food Control Area, geo-political boundaries, and Food Control Points. This objective and corrective action are scheduled for demonstration on July 26, 2000.

e. **PRIOR ARCAs-RESOLVED: NONE**

f. **PRIOR ARCAs-UNRESOLVED: NONE**

APPENDIX 1 ACRONYMS AND ABBREVIATIONS

The following is a list of the acronyms and abbreviations that were used in this report.

ACP	Access Control Point
ANL	Argonne National Laboratory
ARCA	Area(s) Requiring Corrective Action
B/F	Benton/Franklin Counties
CFR	Code of Federal Regulations
Cpm	Counts per minute
DAC	Dose Assessment Center
DCX	Direction & Control Center
DFO	Disaster Field Office
DILs	Derived Intervention Levels
DOD	Department of Defense
DOE-RL	Department of Energy - Richland Office
DOH	Department of Health - WA
DRD	Direct Reading Dosimeter
EMD	Emergency Management Division
EMP	Emergency Management Plan
EN	Energy Northwest
EOC	Emergency Operations Center
EOF	Emergency Operations Facility
EOP	Emergency Operations Plan
EPZ	Emergency Planning Zone
ERC	Emergency Response Coordinator
ERO	Emergency Response Organization
ERP	Emergency Response Procedure
ESF	Emergency Support Function
EW	Emergency Worker
EWAC	Emergency Worker Assistance Center
FAX	Facsimile
FCA	Food Control Area
FCB	Food Control Boundary
FCO	Field Coordination Officer
FCP	Food Control Point, Food Access Control Point
FSO	Food Safety Officer
FEMA	Federal Emergency Management Agency
FNF	Fixed Nuclear Facility
FRC	Federal Response Center
FRERP	Federal Radiological Emergency Response Plan
GE	General Emergency
GM	Guidance Memorandum
IEP	Ingestion Exposure Pathway
INEEL	Idaho National Engineering & Environmental Laboratory
IP	Implementing Procedure

JIC	Joint Information Center
KI	Potassium Iodide
MSDS	Material Safety Data Sheet
MUDAC	Meteorological Unified Dose Assessment Center
NCP	National Contingency Plan
NOUE	Notification of Unusual Event
NRC	U.S. Nuclear Regulatory Commission
NUREG-0654	NUREG-0654/FEMA-REP-1, Rev. 1, <i>“Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants,” November 1980</i>
ODA	Oregon Department of Agriculture
ODOT	Oregon Department of Transportation
OHD	Oregon Health Division
OR	State of Oregon
ORO	Offsite Response Organization
PAD	Protective Action Decision
PAG	Protective Action Guides
QA	Quality Assurance
R	Roentgen
RAC	Regional Assistance Committee
RCA	Radiation Control Area
RCW	Revised Code of Washington
REA	Radiation Emergency Area
REP	Radiological Emergency Preparedness
RERP	Radiological Emergency Response Plan
SAE	Site Area Emergency
TCP	Traffic Control Point
TLD	Thermoluminescent Dosimeter
UDAC	Unified Dose Assessment Center
USDOE-RL	United States Department of Energy, Richland
USDA	United States Department of Agriculture
WA	State of Washington
WNP-2	Washington Nuclear Plant Number 2
WSDA	Washington State Department of Agriculture
WSDOT	Washington State Department of Transportation
WSP	Washington State Patrol

APPENDIX 2

DRILL EVALUATORS

The following personnel evaluated the Oregon Ingestion Drill for WNP-2 on December 8, 1999. The organization, which each evaluator represents, is indicated by the following abbreviations:

ANL - Argonne National Laboratory
FEMA - Federal Emergency Management Agency
INEEL - Idaho National Engineering & Environmental Laboratory

<u>EVALUATION SITE</u>	<u>EVALUATOR</u>	<u>ORGANIZATION</u>
Radiological Field Sampling Teams	G. Gibeault	INEEL
	J. Colson	INEEL
Food Control Point	F. Bold	ANL
Morrow County EOC	B. Young	ANL
	M. Hammond	FEMA
Umatilla County EOC	L. Moore ¹	FEMA
	R. Converse	ANL

¹ Also served as Team Leader for the Drill.

APPENDIX 3

EXERCISE OBJECTIVES, EXTENT-OF-PLAY AGREEMENTS, AND SCENARIOS

This appendix lists the exercise objectives scheduled for demonstration in the Oregon Ingestion Drill for WNP-2, which was held on December 8, 1999. The extent of play agreement approved by FEMA Region X for the drill is also included in this appendix.

The exercise objectives, contained in FEMA-REP-14, "Radiological Emergency Preparedness Exercise Manual," September 1991, represent a functional translation of the planning standards and evaluation criteria of NUREG-0654/FEMA-REP-1, Rev. 1, "Criteria for the Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants," November 1980.

Because the exercise objectives are intended for use at all nuclear power plant sites, and because of variations among offsite plans and procedures, an extent of play agreement was prepared by all agencies involved and approved by FEMA to provide evaluators with guidance on expected actual demonstration of the objectives.

A. Exercise Objectives

Listed below are the specific radiological emergency preparedness exercise objectives scheduled for demonstration during the drill.

OBJECTIVE 1: MOBILIZATION OF EMERGENCY PERSONNEL

Demonstrate the capability to alert and fully mobilize personnel for both emergency facilities and field operations. Demonstrate the capability to activate and staff emergency facilities for emergency operations.

OBJECTIVE 2: FACILITIES – EQUIPMENT, DISPLAYS, AND WORK ENVIRONMENT

Demonstrate the adequacy of facilities, equipment, displays and other materials to support emergency operations.

OBJECTIVE 3: DIRECTION AND CONTROL

Demonstrate the capability to direct and control emergency operations.

OBJECTIVE 4: COMMUNICATIONS

Demonstrate the capability to communicate with all appropriate emergency personnel at facilities and in the field.

OBJECTIVE 5: EMERGENCY WORKER EXPOSURE CONTROL

Demonstrate the capability to continuously monitor and control radiation exposure to emergency Workers.

OBJECTIVE 11: PUBLIC INSTRUCTIONS AND EMERGENCY INFORMATION

Demonstrate the capability to coordinate the formulation and dissemination of accurate information and instructions to the public.

OBJECTIVE 12: EMERGENCY INFORMATION - MEDIA

Demonstrate the capability to coordinate the development and dissemination of clear, accurate, and timely information to the news media.

OBJECTIVE 13: EMERGENCY INFORMATION – RUMOR CONTROL

Demonstrate the capability to establish and operate rumor control in a coordinated and timely manner.

OBJECTIVE 24: POST-EMERGENCY SAMPLING

Demonstrate the use of equipment and procedures for the collection and transportation of samples from areas that received deposition from the airborne plume.

OBJECTIVE 27: INGESTION EXPOSURE PATHWAY – PROTECTIVE ACTION IMPLEMENTATION

Demonstrate the capability to implement protective actions for the ingestion exposure pathway.

B. EXTENT OF PLAY AGREEMENTS AND SCENARIOS

The extent of play agreement and scenario on the following pages were submitted by the Oregon Office of Energy and approved by FEMA Region X, as indicated on the correspondence. The extent of play agreement includes any significant modifications or changes in the level of demonstration for each exercise objective listed in Subsection A of this appendix.



Federal Emergency Management Agency

Region X

130 228th Street, Southwest
Bothell, WA 98021-9796

COPY

November 19, 1999

Deanna Meggs, Coordinator
Nuclear Emergency Preparedness
OR DOE, Nuclear Safety Division
625 Marion Street NE, Suite 1
Salem, Oregon 97301-3742

Deanna
Dear Ms. Meggs:

This will acknowledge Oregon Office of Energy's October 1, 1999, request for our Out-of-Sequence evaluations on December 8, 1999, during the WNP-2 Exercise.

We agree with your stated objectives to be demonstrated for evaluation at the Morrow and Umatilla County EOCs, at the Oregon Food Control Point, and by the Field Sampling Teams.

Evaluator assignments for these locations are as follows:

Morrow County EOC	Bruce Young and Mike Hammond
Umatilla County EOC	Larry Moore and Richard Converse
Oregon Food Control Point	Frank Bold
Field Sampling Teams (2)	Gerry Gibeault and Jim Colson -

By copy of this letter to Casey Beard (Morrow County) and Dennis Olson (Umatilla County) they will be advised of our evaluator assignments for their counties.

If you have any questions or concerns, please call me (425-487-4743).

Sincerely,

Larry E. Moore, Chairman
Regional Assistance Committee

cc: Nick Goevlinger, Oregon Health Division
Casey Beard, Morrow County EM
Dennis Olson, Umatilla County EM
Vanessa Quinn, FEMA HQ - PT-CR-RP
D. Mauldin, FEMA HQ - PT-CR-RP
Tom Andrews/Charles Hackney, NRC RIV

COPY



Oregon

John A. Kitzhaber, M.D., Governor

Office of Energy
625 Marion St. NE, Suite 1
Salem, OR 97301-3742
Phone: (503) 378-4040
Toll Free: 1-800-221-8035
FAX: (503) 373-7806
www.energy.state.or.us

COPY

October 1, 1999

Larry Moore
FEMA Region X
130 228th Street SW
Bothell, WA 98021

Dear Mr. Moore, *LARRY*

The Oregon Office of Energy (Oregon Energy) is requesting out-of-sequence evaluation for the following objectives at Oregon emergency response locations on December 8, 1999 during the WNP-2 exercise.

Morrow and Umatilla County EOCs

- Objective 1 Mobilization of Emergency Personnel
- Objective 2 Facilities - Equipment, Displays, and Work Environment
- Objective 3 Direction and Control
- Objective 4 Communications
- Objective 11 Public Instructions and Emergency Information
- Objective 12 Emergency Information - Media
- Objective 13 Emergency Information - Rumor Control
- Objective 27 Ingestion Exposure Pathway - Protective Action Implementation

Oregon Food Control Point and Field Sampling Teams

- Objective 5 Emergency Worker Exposure Control
- Objective 24 Post Emergency Sampling
- Objective 27 Ingestion Exposure Pathway - Protective Action Implementation

October 1, 1999

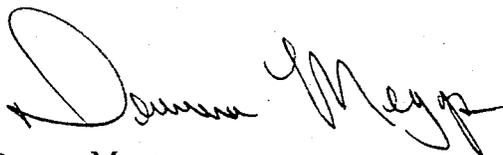
Page 2

Enclosed is Oregon's exercise package for your review. The package includes:

- Oregon's scope, objectives, and limitations
- Morrow and Umatilla County EOCs/Food Control Point Scenario
 - Introduction of Hazards
 - Basis for Demonstration
 - Extent of Play
 - Timeline
- Oregon's Plan of Record

Please call me if you have any questions about Oregon's proposed exercise scope, objectives, or limitations.

Sincerely,

A handwritten signature in black ink, appearing to read "Deanna Meggs". The signature is written in a cursive, flowing style.

Deanna Meggs,
Nuclear Emergency Preparedness Coordinator

cc: Eleanor Castle, FEMA Region X
Nick Goevelinger, Oregon Health Division
Fred Klauss, Energy Northwest
Ron Jorgenson, Energy Northwest

December 7-8, 1999 WNP-2 Exercise

Oregon Scope, Objectives, and Limitations

(10-1-99)

SCOPE

Oregon Office of Energy (Oregon Energy) -- Oregon Energy will activate and operate the Emergency Coordination Center (ECC) in Salem in support of Energy Northwest's December 7-8, 1999 WNP-2 exercise. Oregon Energy will send staff to the Joint Information Center (JIC) to coordinate news releases and participate in news conferences with Energy Northwest and other offsite agencies. Oregon Energy will send technical resources to the Emergency Operations Facility (EOF) to monitor and assess radiological release consequences for the state of Oregon. Oregon Energy will send a liaison to the Washington Emergency Operations Center (EOC) to coordinate activities and facilitate communications between decision makers in the two states.

Oregon Health Division (OHD) -- OHD will send representatives to the Oregon ECC and to the EOF to determine potential health risks from radiological releases to the environment. OHD will send field teams to Morrow and Umatilla counties to perform radiological monitoring and sampling. OHD will also establish and operate a Food Control Point (FCP).

Oregon Department of Agriculture (ODA) -- ODA will send representatives to the Oregon ECC and to the FCP to provide guidance and instructions for implementing food control measures.

Oregon Emergency Management (OEM) -- OEM will provide statewide coordination and communication resources to support Oregon Energy's response.

Oregon State University (OSU) -- OSU will also provide a technical resource to the EOF to assist Oregon Energy in monitoring and assessing radiological release consequences for the state of Oregon.

Morrow County -- Morrow County will activate and operate the EOC (EOC) in Heppner. Morrow County will work with Oregon Energy to make appropriate protective action decisions. Morrow County will assist OHD and ODA to implement protective actions.

Umatilla County -- Umatilla County will activate and operate the EOC in Pendleton. Umatilla County will work with Oregon Energy to make appropriate protective action decisions. Umatilla County will assist OHD and ODA to implement protective actions.

Note: FEMA will evaluate the following activities during the WNP-2 Exercise on December 7-8, 1999.

Day 1: No Oregon exercise objectives will be evaluated on December 7.

Day 2: On December 8, Oregon Health will demonstrate procedures for field sampling and for the establishment and operation of a Food Control Point. Oregon Agriculture will demonstrate procedures for assisting Oregon Health at the Food Control Point in implementing food control measures.

On December 8, Morrow and Umatilla counties will fully activate their EOCs for evaluation in the morning. Counties will terminate their EOCs once all of the objectives have been demonstrated. Field activities for both counties will be limited to supporting the establishment and operation of a predetermined FCP.

OBJECTIVES & LIMITATIONS

Objective 1: Mobilization of Emergency Personnel

Demonstrate the capability to alert and fully mobilize personnel for both emergency facilities and field operations. Demonstrate the capability to activate and staff emergency facilities for emergency operations.

Dec. 1999: Morrow and Umatilla counties will demonstrate this objective for evaluation. The Oregon ECC will demonstrate this objective for training only.

Limitations: Morrow and Umatilla counties will fully activate their EOCs in the morning of day 2 only. In the afternoon, Morrow and Umatilla county activities will support the establishment and operation of a predetermined FCP. Decision makers at the Oregon ECC will coordinate all protective action decisions and recommendations and food control activities with county decision makers responding to the FCP.

Pre-positioned emergency responders to the JIC and EOF will delay reporting to assigned locations by one hour following notification. Field team members will be pre-positioned at the Hermiston Safety Center prior to the exercise.

Objective 2: Facilities - Equipment, Displays, and Work Environment

Demonstrate the adequacy of facilities, equipment, displays, and other materials to support emergency operations.

Dec. 1999: Morrow and Umatilla counties will demonstrate this objective for evaluation. The Oregon ECC will demonstrate this objective for training only.

ARCA: MO94-1 -- Status board at the Morrow County EOC was not updated.

Limitations: Morrow County is renovating its EOC. Response activities may be restricted to a smaller work area.

Objective 3: Direction and Control

Demonstrate the capability to direct and control emergency operations.

Dec. 1999: Morrow and Umatilla counties will demonstrate this objective for evaluation. The Oregon ECC will demonstrate this objective for training only.

Limitations: None.

Objective 4: Communications

Demonstrate the capability to communicate with all appropriate emergency personnel at facilities and in the field.

Dec. 1999: Morrow and Umatilla counties will demonstrate this objective for evaluation. The Oregon ECC will demonstrate this objective for training only.

Limitations: Demonstration of back-up communications will be limited to transmitting and receiving one message during the exercise.

Objective 5: Emergency Worker Exposure Control

Demonstrate the capability to continuously monitor and control radiation exposure to emergency workers.

Dec. 1999: Oregon will demonstrate this objective for evaluation for responders to the Food Control Point.

Limitations: Oregon representatives responding to the EOF will demonstrate this objective for training only.

Objective 6: Field Radiological Monitoring - Ambient Radiation Monitoring

Demonstrate the appropriate use of equipment and procedures for determining field radiation measurements.

Dec. 1999: Oregon will demonstrate this objective for training only.

Limitations: None.

❖ OBJECTIVE 7 DOES NOT APPLY TO OREGON.

Objective 8: Field Radiological Monitoring – Airborne radioiodine and particulate activity monitoring

Demonstrate the appropriate use of equipment and procedures for the measurement of airborne radioiodine concentration.

Dec. 1999: Oregon will demonstrate this objective for training only.

Limitations: None.

❖ **OBJECTIVE 9-10 DO NOT APPLY TO OREGON.**

Objective 11: Public Instructions and Emergency Information

Demonstrate the capability to coordinate the formulation and dissemination of accurate information and instructions to the public.

Dec. 1999: Morrow and Umatilla counties will demonstrate this objective for evaluation. The Oregon ECC will demonstrate this objective for training only.

Limitations: Morrow and Umatilla counties will demonstrate this objective for evaluation by interview.

Objective 12: Emergency Information - Media

Demonstrate the capability to coordinate the development and dissemination of clear, accurate, and timely information to the news media.

Dec. 1999: Morrow and Umatilla counties will demonstrate this objective for evaluation. The Oregon ECC will demonstrate this objective for training only.

Limitations: County news briefings to the media will be simulated. Morrow and Umatilla counties will have a Public Information Officer available. The News Center located at the Employment Division auditorium, 875 Union Street NE, Salem will not be activated. ECC news media briefings will be simulated.

Objective 13: Emergency Information - Rumor Control

Demonstrate the capability to establish and operate rumor control in a coordinated and timely manner.

Dec. 1999: Morrow and Umatilla counties will demonstrate this objective for evaluation. The Oregon ECC will demonstrate this objective for training only.

Limitations: Evaluation will be limited to Morrow and Umatilla counties ability to forward or direct rumor control calls to the Oregon ECC or to the WNP-2 Joint Information Center.

❖ **OBJECTIVES 14-22 DO NOT APPLY TO OREGON.**

- **Objective 23 Supplementary Assistance (Federal/Other)** – Oregon demonstrated the requirements for this objective for this 6-year cycle in the September 1996 Biennial Exercise.

Objective 24 Post Emergency Sampling

Demonstrate the use of equipment and procedures for the collection and transportation of samples from areas that received deposition from the airborne plume.

Dec. 1999: Oregon will demonstrate this objective for evaluation.

Limitations: Samples will be taken out of sequence. This includes at least one vegetation, food crops, and water sample. Transportation of the samples for lab analysis will be simulated.

- **Objective 25 Laboratory Operations** - Oregon will demonstrate the requirements for this objective in conjunction with the WNP-2 Drill in July 2000.

Objective 26 Ingestion Exposure Pathway - Dose Projection and Protective Action Decision Making

Demonstrate the capability to project dose to the public for the ingestion pathway and to recommend protective measures.

Dec. 1999: Oregon will demonstrate this objective for training only.

Limitations: None.

Objective 27 Ingestion Exposure Pathway - Protective Action Implementation

Demonstrate the capability to implement protective actions for ingestion exposure pathway.

Dec. 1999: The Oregon Health Division, the Oregon Department of Agriculture, and Morrow and Umatilla counties will demonstrate this objective for evaluation.

Limitations: Evaluation will be limited to the establishment and operation of *one* Food Control Point for both Morrow and Umatilla counties at a predetermined location.

❖ **OBJECTIVES 28-29 DO NOT APPLY TO OREGON.**

- **Objective 30 Continuous, 24-Hour Staffing** - Oregon demonstrated the requirements for this objective for this 6-year cycle in the September 1996 Biennial Exercise.

❖ **OBJECTIVE 31 DOES NOT APPLY TO OREGON.**

- **Objective 32 Unannounced Exercise or Drill** - Oregon demonstrated the requirements for this objective for this 6-year cycle in the September 16, 1998 Biennial Exercise.

- **Objective 33 Off-Hours Exercise or Drill** - Oregon demonstrated the requirements for this objective for this 6-year cycle in the September 16, 1998 Biennial Exercise.

December 7-8, 1999 WNP-2 Exercise

Morrow County EOC Operation Demonstration for Evaluation Umatilla County EOC Operation Demonstration for Evaluation Food Control Point Demonstration for Evaluation

Participating Agencies

- **Oregon Agencies to be Evaluated**

Morrow County Emergency Management
Umatilla County Emergency Management
Oregon Health Division
Oregon Department of Agriculture

- **Support Agencies**

Oregon Department of Transportation
State and Local Law Enforcement
Hermiston Fire Department

Introduction

There are two primary radiological hazards that could impact the state of Oregon. The first is the U.S. Department of Energy's (DOE-RL) Hanford Site in south central Washington. For more than 40 years, Hanford's mission was to produce plutonium for the nation's nuclear weapons program. Although the site's mission today is cleanup, an accident involving any one of Hanford's old reactors, underground tanks, plutonium manufacturing or storage facilities still heavily contaminated could result in the release of radiological materials into the environment. Also located on the Hanford Site is the regions only operation commercial nuclear power plant. WNP-2 is a 1150 megawatt boiling water reactor owned and operated by Energy Northwest. WNP-2 produces about ten percent of the regions energy resources.

An accident at Hanford or WNP-2 could result in the release of radioactive materials impacting Oregon. Parts of Oregon's Morrow and Umatilla counties are within 50 miles of the site. According to the 1990 census, approximately 70,000 Oregonians live within 50 miles of Hanford in the two counties. Because Oregon is some 30 miles from the Site, our primary concern in the event of a radiological release from Hanford or WNP-2 is to protect people from eating potentially contaminated agricultural products.

The Oregon Office of Energy (Oregon Energy) maintains the state's emergency preparedness and response plans and procedures for Hanford and WNP-2 emergencies. Within Oregon Energy's Plan, Morrow and Umatilla counties established emergency response procedures consistent with the state for dealing with these hazards. The Oregon Health Division and the Oregon Department of Agriculture also developed procedures in support of Oregon Energy's response to Hanford and WNP-2 emergencies.

Basis for Demonstration

Morrow and Umatilla County EOCs

In the event of an emergency at Hanford or WNP-2, state and county procedures provide a method to monitor the accident, assess the impacts to public health and safety, and recommend protective actions for Oregonians.

For the demonstration of Morrow and Umatilla County EOCs, it is assumed that:

- Energy Northwest declared a Site Area Emergency or higher at WNP-2.
- Oregon Energy has activated the Oregon Emergency Coordination Center in Salem to direct the state's response.
- Oregon Energy has alerted Morrow and Umatilla counties of an emergency at WNP-2 and remains in constant communication with both counties.
- The emergency may result in the release of radioactive materials to the environment.
- Precautionary actions and/or protective actions may be required to protect public health and safety.

The Morrow County EOC is located at 325 Willow View Drive, Heppner, Oregon, 97836. The Umatilla County EOC is located at 4700 NW Pioneer Place, Pendleton, Oregon 97801.

Food Control Point

State and county procedures also provide a method to prevent potentially contaminated agricultural products from escaping an affected area and entering into the food chain. The method allows emergency responders to identify an area suspected of contamination, determine enforceable boundaries for the suspected area, sample agricultural shipments originating in the suspected area for laboratory analysis, notify food producers, processors, and distributors, and establish Food Control Points.

For the Oregon Food Control Point demonstration, it is assumed that:

- Energy Northwest declared a General Emergency at WNP-2 due to the release of a radioactive plume.
- Governor or designee (Oregon Energy) authorized food control measures and activities as necessary.

- Oregon Radiological Monitoring Teams, Washington Field Teams, Energy Northwest Field Teams and others provide information regarding radiation measurements from deposition of nuclides to the Meteorological Unified Dose Assessment Center (MUDAC).
- MUDAC identifies areas where the radiation exposure rate from deposited radionuclides potentially exceeds 2-microR/H and reports this information to the Oregon Emergency Coordination Center (ECC).
- Decision makers at the Oregon ECC declare a Food Control Area.
- Morrow and Umatilla counties identify geo-political boundaries and Food Control Points based on areas of deposition identified by MUDAC. These activities are coordinated with the Oregon ECC.
- Oregon Health Division with the assistance of the Oregon Department of Agriculture, Morrow and Umatilla counties establish and operate Food Control Points. All agricultural shipments from the suspected area will be monitored for potential contamination. Samples of agricultural shipments may be taken for lab analysis at the discretion of health officials.

For the purposes of this demonstration, the Umatilla Port of Entry at I-82 by the McNary Locks will be the designated Food Control Point. The Umatilla Port of Entry is operated by the Oregon Department of Transportation.

Extent of Play

▪ Morrow and Umatilla County EOCs

Day 1 (December 7) – Morrow and Umatilla County EOCs will receive emergency notifications and situation updates from the Oregon Emergency Coordination Center (ECC) in Salem. No objectives will be demonstrated for evaluation.

Day 2 (December 8) – At 8:30 a.m., Morrow and Umatilla Counties will fully activate and operate their respective EOCs. A Controller message to the Morrow and Umatilla County EOCs will initiate exercise play. Morrow and Umatilla County EOCs will remain operational until all of the objectives have been demonstrated. This includes coordinating the establishment of a Food Control Point. Once all of the objectives are demonstrated, Morrow and Umatilla County responders will transition to the Food Control Point to support operations.

▪ Sampling Teams

Day 1 (December 7) – No objectives will be demonstrated for evaluation.

Day 2 (December 8) – At 9 a.m., two Oregon Health Division Radiological Monitoring Teams will report to the Hermiston Safety Center, 330 S. First Street, Hermiston, Oregon 97838 in preparation for field sampling. Each team will take one soil, one vegetation, and one water sample in the field. Oregon will not demonstrate taking an air sample. Air samples are taken during the plume phase. The sampling of potentially contaminated milk will not be demonstrated during this exercise. There are no dairies in Morrow or Umatilla counties at this time. No surveys will be conducted. No radiological data is required. Demonstration is limited to the process of taking samples. Field teams will monitor ambient radiation levels while performing sampling duties.

▪ **Food Control Point**

Day 1 (December 7) – No objectives will be demonstrated for evaluation.

Day 2 (December 8) – At 1:30 p.m., the Oregon Health Division will establish and operate one Food Control Point with the support of the Oregon Department of Agriculture, Morrow County, and Umatilla County. The Food Control Point is located at the Umatilla Port of Entry at I-82 by the McNary Locks. Oregon Health will take samples from two agriculture shipments at the Food Control Point. Lab analysis of the samples will be simulated. A Controller message with simulated sample results will be faxed to the Food Control Point. Oregon Health will demonstrate by FEMA interview what happens to an uncontaminated agricultural shipment. Oregon Agriculture will demonstrate by FEMA interview what happens to a contaminated shipment. The Food Control Point will remain operational until all exercise objectives have been demonstrated.

Time Line

Energy Northwest and the Washington Department of Health developed the following time line for the December 7-8, 1999 WNP-2 exercise. The WNP-2 Scenario Review Group reviewed and approved the time line. Critical times involving Oregon emergency locations and activities to be evaluated on Day 2 are included in this time line (bold, italicized text).

Day One (No objectives will be demonstrated for evaluation)

0700 – 0900 Classroom Training at Energy Northwest (EN).

0930 – 1000 EN declares Alert and activates the Automatic Notification System (ANS). Complete notification process begins.

1000 – 1100 Exercise is frozen for this hour. EN will be conducting an In-center briefing. DOH will send field teams to FCEM to stage, eat lunch and standby. DOH JIC and EOF personnel will be staged at the Doubletree lobby in Richland. DOH EOC personnel will begin traveling to the State EOC.

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- 1100 Exercise is unfrozen and play begins.
- 1145 Site Area Emergency is declared. DOH requests Federal Assistance (FRMAC and RAP)
- 1215 General Emergency is declared and release begins.
- 1315 DOH field teams see radiation levels at 6 miles and release ends.
- 1415 Field monitoring activities end and teams are called into the MUDAC.
- 1430 – 1530 Transition of MUDAC responsibility begins. This would include all the steps outlined in EPIP 13.13.3 up to the development of the Initial Return PAR.
- 1530 – 1630 Critique.

Day Two

- 0800 – 0815 A briefing will be provided to the EOF players. The 10 mile EPZ map will be posted from the previous day's data and a package of correlative, tabular data will be passed out. A copy of this briefing will be given to the other state and local agency facilities.
- 0815 – 0845 EOF players should be developing an overall plan of action. ***Controller message initiating exercise play at Morrow and Umatilla County EOCs.***
- 0845 – 0915 The Initial Return PAR should be developed and sent to the offsite facilities. ***Oregon Health Radiological Monitoring Teams report to the Hermiston Safety Center in preparation for field sampling.***
- 0915 – 1015 EOF players will be developing an Isopleth Survey Plan and will demonstrate the process for data input into the new mapping software (5 points).
- 1015 – 1045 The Relocation Map and Revised Return PAR will be developed by EOF personnel. This package will then be sent to the offsite facilities.
- 1045 – 1130 EOF personnel will be developing the Food Control MAP and PAR. Only two calculations for the 2 microR/hour boundary will be performed to accelerate exercise progress.
- 1130 – 1200 EOF personnel will be given an AMS flyover map, lab analysis data and new field data. This will allow the development of the Transportation Corridor recommendations and discussion of an interim sampling plan.

1200 – 1400 EOF personnel will participate in a detailed discussion concerning the development of a detailed Sampling Plan. *Oregon Health Division establishes and operates Food Control Point with the support of the Oregon Department of Agriculture, Morrow County, and Umatilla County.*

1400 – 1500 Critique.

Directions to Oregon Emergency Response Locations

Morrow County EOC, 325 Willow View Drive, Heppner, Oregon, (541) 676-5161

From Richland...

- Take I-82 S towards Umatilla
- Cross the Columbia River
- Continue on I-82 S until the I-84 Junction
- Stay in right lane which turns into I-84 W
- Take third exit (Bombing Range Road – Irrigon)
- Turn left off exit onto Highway 730
- Pass under freeway and turn left onto Bombing Range Road (toward Heppner/Lexington)
- Travel about 12 miles, turn right at the T in the road onto Highway 207 to Lexington
- Travel about 10 miles into Lexington, turn left at the stop sign
- Travel about 9 miles into Heppner
- Turn right at the Morrow County Sheriff's Office sign (right hand side - short street)
- Turn left at the stop sign
- Go over small bridge
- Turn right on Water Street and follow the road up a hill
- Water Street turns into Willow View Drive
- Morrow County EOC is at the top of the hill.

Umatilla County EOC, 4700 NW Pioneer Place, Pendleton, Oregon, (541) 966-3701

From Richland...

- Take I-82 S towards Umatilla
- Cross the Columbia River
- Continue on I-82 S until the I-84 Junction
- Stay in left lane which turns into I-84 E
- Stay on I-84 E until Exit 207 (first Pendleton exit)
- Turn right off exit
- Take immediate left onto Pioneer Place (EOC is right in front of you)

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Hermiston Safety Center, 330 S. First Street, Hermiston, Oregon, (541) 567-8822

From Richland...

- Take I-82 S towards Umatilla
- Cross the Columbia River
- Take Umatilla exit
- Turn left off exit
- Go to first intersection, turn right onto Highway 395
- Stay on Highway 395 into Hermiston
- Turn Right on Orchard Street (Golden Palace Restaurant on the corner)
- Take and immediate left onto First Street
- Hermiston Safety Center is on your right.

Umatilla Port of Entry (Food Control Point)

From Richland...

- Take I-82 S towards Umatilla
- Cross the Columbia River
- Take Umatilla exit
- Turn right off exit
- Umatilla Port of Entry is on your right

