

Columbia Generating Station Plume and Ingestion Pathway Exercise – September 2008

Final Report – Radiological Emergency Preparedness Program

December 15, 2008



FEMA

FEMA Region X



FEMA

Final Exercise Report Columbia Generating Station

Licensee: **Energy Northwest**
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**U.S. DEPARTMENT OF HOMELAND SECURITY
OFFICE OF INFRASTRUCTURE PROTECTION
CHEMICAL & NUCLEAR PREPAREDNESS AND PROTECTION DIVISION
RADIOLOGICAL EMERGENCY PREPAREDNESS**

**FEMA REGION X
130 228th STREET, SOUTHWEST
BOTHELL, WASHINGTON 98021-9796**

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I. EXECUTIVE SUMMARY

On September 9 and 10, 2008, a full-scale plume and ingestion exercise was conducted in the 10-plume and 50-mile ingestion exposure pathway emergency planning zones (EPZs) around the Columbia Generating Station (CGS) by the Federal Emergency Management Agency (FEMA), Region X. The purpose of the exercise was to assess the level of State and local preparedness in responding to a radiological emergency. The exercise was held in accordance with FEMA's policies and guidance concerning the exercise of State and local radiological emergency response plans (RERP) and procedures.

The most recent prior full-scale exercise at this site was conducted on September 12, 2006. The qualifying emergency preparedness exercise was conducted on June 1, 1983.

FEMA wishes to acknowledge the efforts of the many individuals in the States of Washington and Oregon; the Washington risk jurisdictions of Benton and Franklin Counties; the Washington support jurisdictions of Adams, Grant, Walla Walla, and Yakima Counties; and the Oregon support jurisdictions of Morrow and Umatilla Counties who were evaluated at this exercise.

Protecting the public health and safety is the full-time job of some of the exercise participants and an additional assigned responsibility for others. Still others have willingly sought this responsibility by volunteering to provide vital emergency services to their communities. Cooperation and teamwork of all the participants were evident during this exercise.

The State and local organizations, except where noted in this report, demonstrated knowledge of their emergency response plans and procedures and adequately implemented them. There were no Deficiencies and 3 Areas Requiring Corrective Action (ARCAs) identified as a result of this exercise. One ARCA from a previous exercise was successfully demonstrated at this exercise. Five new planning issues were identified, and two planning issues from a previous exercise were resolved and one planning issue from a previous exercise remains unresolved (see Appendix 5 for all planning issues).

II. Introduction

On December 7, 1979, the President directed the Federal Emergency Management Agency (FEMA) to assume the lead responsibility for all off-site nuclear planning and response. FEMA's activities were conducted pursuant to 44 Code of Federal Regulations (CFR) Parts 350, 351 and 352. These regulations are a key element in the Radiological Emergency Preparedness (REP) Program that was established following the Three Mile Island Nuclear Station accident in March 1979.

44 CFR 350 establishes the policies and procedures for FEMA's initial and continued approval of Tribal, 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 and in the review and evaluation of Radiological Emergency Response Plans (RERPs) and procedures developed by State and local governments;
- Determining whether such plans and procedures can be implemented on the basis of observation and evaluation of exercises of the plans and procedures conducted by State and local governments;
- 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 the following Federal agencies with responsibilities in the radiological emergency planning process:
 - U.S. Department of Commerce,
 - 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 these agencies serve on the FEMA Region X Radiological Assistance Committee (RAC), which is chaired by FEMA.

A REP exercise was conducted on September 9 and 10, 2008, to assess the capabilities of State and local emergency preparedness organizations in implementing their RERPs and procedures to protect the public health and safety during a radiological emergency involving Columbia Generating Station (CGS). The purpose of this exercise report is to present the exercise results and findings on the performance of the off-site response organizations (OROs) during a simulated radiological emergency.

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 RAC Chairperson and approved by FEMA Headquarters.

These reports are provided to the NRC and participating States. State and local governments utilize the findings contained in these reports for the purposes of planning, training, and improving emergency response capabilities.

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

- 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 Guidance Memoranda MS-1, "Medical Services," November 1986;
- FEMA-REP-14, "Radiological Emergency Preparedness Exercise Manual," September 1991, Interim REP Program Manual;
- 66 FR 47546, "FEMA Radiological Emergency Preparedness: Alert and Notification," September 12, 2001; and
- 67 FR 20580, "FEMA Radiological Emergency Preparedness: Exercise Evaluation Methodology," April 25, 2002.

Section III of this report, entitled "Exercise Overview," presents basic information and data relevant to the exercise. This section of the report contains a description of the plume pathway emergency planning zone (EPZ), a listing of all participating jurisdictions and functional entities that were evaluated, and a tabular presentation of the time of actual occurrence of key exercise events and activities.

Section IV of this report, entitled "Exercise Evaluation and Results," presents detailed information on the demonstration of applicable exercise evaluation areas at each jurisdiction or functional entity evaluated in a jurisdiction-based, issues-only format. This section also contains: (1) descriptions of all Deficiencies and Areas Requiring Corrective Action (ARCAs) assessed during this exercise, recommended corrective actions, and the Tribal, State, and local governments' schedule of corrective actions for each identified exercise issue and (2) descriptions of ARCAs assessed during previous exercises and resolved at this exercise,

including the corrective action demonstrated, as well as ARCAs assessed during previous exercises and scheduled for demonstration at this exercise which remain unresolved.

The final section of the report is comprised of the appendices, which present the following supplementary information: acronyms and abbreviations, exercise evaluators and team leaders, exercise evaluation area criteria and extent of play agreement, and the exercise scenario. It also presents information on planning issues (both new planning issues identified during this exercise and resolved planning issues identified during previous exercises).

III. Exercise Overview

Contained in this section are data and basic information relevant to the September 9 and 10, 2008 exercise to test the off-site emergency response capabilities in the area surrounding Columbia Generating Station (CGS). This section of the exercise report includes a description of the plume pathway emergency planning zone (EPZ), a listing of all participating jurisdictions and functional entities that were evaluated, and a tabular presentation of the time of actual occurrence of key exercise events and activities.

A. Plume Emergency Planning Zone Description

The Columbia Generating Station is located in the Southeastern quadrant of the U.S. Department of Energy's Hanford Reservation, approximately ten miles North of the city of Richland and three miles west of the Columbia River. CGS is a boiling water reactor with a turbine generator rated at 1,250 megawatts (peak gross).

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 3,674. Approximately 1150 of these residents live in Benton County where the CGS is located. The other 2,524 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 15,836 depending on the time of the year. This estimate is comprised of 7,926 industrial employees, mostly in Benton County; 5,135 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 southwest edge of the EPZ.

The land use within the Benton County portion of the 10-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. Exercise Participants

The following agencies, organizations, and units of government participated in the CGS exercise on September 9 and 10, 2008.

FEDERAL AGENCIES

- Federal Emergency Management Agency
- U.S. Department of Agriculture
- U.S. Department of Energy
- U.S. Department of Health and Human Services - CDC

STATE OF WASHINGTON

- Washington Department of Agriculture
- Washington Department of Fish and Wildlife
- Washington Department of Health
- Washington Department of Information Services
- Washington Department of Transportation
- Washington Energy Facility Site Evaluation Council
- Washington Military Department and its Emergency Management Division
- Washington National Guard
- Washington Office of the Insurance Commissioner
- Washington State Patrol
- Washington State Department of Health Office of Radiation Protection

WASHINGTON RISK JURISDICTIONS

BENTON COUNTY

- Benton County Board of County Commissioners
- Benton County Emergency Services
- Benton County Fire Protection
- Benton County Public Works
- Benton County SE Communications (911 Center)
- Benton County Sheriff's Office
- Benton/Franklin Department of Health
- Kennewick Fire Department
- Richland Fire Department
- Richland Police Department
- Richland School District
- Washington Department of Agriculture
- Washington Emergency Management Division
- Washington State Patrol
- West Richland Police Department

FRANKLIN COUNTY

Benton-Franklin County Health Department
Franklin County Administration
Franklin County Commission
Franklin County Emergency Management
Franklin County GIS
Franklin County Information systems
Franklin County Public works
Franklin County Sheriff's Department
Franklin Public School District
Pasco Fire Department
Pasco School District No.1
Pasco School District Transportation Department
Washington State Department of Agriculture
Washington State Department of Health – Field Monitoring Team 3
Washington State Department of Health - Pasco Field Coordination Office
Washington State Emergency Management

WASHINGTON SUPPORT JURISDICTIONS

ADAMS COUNTY

Adams County Department of Emergency Management
Adams County Department of Health
Adams County Fire District Five
Adams County Public Works Department
Adams County Sheriff's Department
City of Othello Police Department

GRANT COUNTY

Grant County Board of County Commissioners
Grant County Department of Emergency Management
Grant County Health District
Grant County Public Works Department
Grant County Sheriff
Washington State University Extension Agent

WALLA WALLA COUNTY

Walla Walla County Commissioner's Office
Walla Walla County Emergency Management
Walla Walla County Emergency Medical Services
Walla Walla County Public Health

Walla Walla County Public Works
Walla Walla County Sheriff's Department
Walla Walla County Technical Services
Washington Department of Transportation
Washington State Emergency Management
Washington State Police
Washington State University Extension Agent/County Agriculturist

YAKIMA COUNTY

Board of Commissioners
Central Washington Comprehensive Mental Health
Union Gap Police
Washington State Patrol
Yakima County Corporate Counsel
Yakima County Fire Marshal's Office
Yakima County Fire Protection District #5
Yakima County GIS
Yakima County Health District
Yakima County Health Resources
Yakima County Office of Emergency Management
Yakima County Public Services

STATE OF OREGON

Hermiston Fire and Safety
Morrow County Emergency Management Agency
Oregon Department of Agriculture, Food Safety Division
Oregon Department of Energy
Oregon Department of Health
Oregon Department of Human Services, Public Health Division, Radiation
Protection Services
Oregon Department of Transportation
Oregon Emergency Management, Oregon Emergency Response System
Oregon Governor's Office
Oregon State University
Umatilla County Emergency Management Agency

OREGON SUPPORT JURISDICTIONS

MORROW COUNTY

Morrow County Emergency Management

UMATILLA COUNTY

Oregon Emergency Management
Umatilla County Commissioners
Umatilla County Emergency Management
Umatilla County Health Department
Umatilla County Sheriff's Communications/911
Umatilla County Sheriff's Department

PRIVATE VOLUNTEER ORGANIZATIONS

The following private and volunteer organizations participated in the CGS exercise at many different locations throughout the area. We thank them and all those who volunteer their services to State, county, and municipal governments during emergencies.

Amateur Radio Emergency Services (ARES) and Radio Amateur Civil Emergency Services (RACES), including the following clubs:
Umatilla and Morrow Emergency Service Radio Operators (ARES/RACES)

American Red Cross, including the following local chapters:
Blue Mountain Chapter
Oregon Mountain River

American Nuclear Insurers (Simulated)
Energy Northwest
Office of Emergency Management Volunteers
Richland Citizen Volunteers
WIN21

C. Exercise Timeline

Table 1, on the following page, presents the times at which key events and activities occurred during the CGS exercise on September 9 and 10, 2008. Also included are times notifications were made to the participating jurisdictions/functional entities.

Table 1. Exercise Timeline
Date and Site: September 9 and 10, 2008, Columbia Generating Station

Time that Notification was Received or Action was Taken													
Emergency Classification Level or Event	Time Utility Declared	WA State EOC	EOF MUDAC at Columbia	JIC	Benton County EOC	Franklin County EOC	Adams County EOC	Grant County EOC	Walla Walla County EOC	Yakima County EOC	OR Energy EOC	Morrow County EOC	Umatilla County EOC
Unusual Event (NOUE)	0742	0804	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alert (ALERT)	0822	0835	N/A	0909	0832	0842	0920	0950	0927	0925	0857	0845	0933
Site Area Emergency (SAE)	0943	0954	0943	0951	0955	0952	0957	1010	1000	0958	0958	1013	1033
General Emergency (GE)	1052	1105	1052	1101	1105	1102	1104	1125	1105	1117	1106	1058	1100
Radiation Release Started	1055	1101	1055	1101	1105	1102	1105	1125	1104	1117	1054	1120	1102
Radiation Release Terminated	1425	1436	1425	1433	1430	1435	1439	1505	1435	N/A	1425	1425	1450
Facility Declared Operational Functional		0920	0922	0923	0858	0906	1006	1115	0835	1016	1015	1055	1103
Governor Declared State of Emergency		1230	1242	1230	1235	1230	1239	1236	1241	1237	N/A	N/A	N/A
<u>1st Precautionary Action:</u> Park Closure, River Clearance, School Evac.		0954	1007	0954	0958	0958	N/A	N/A	N/A	N/A	1106	N/A	1236
1 st Siren Activation		N/A	N/A	1002	N/A	1003	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Initial EAS Message		N/A	N/A	1002	N/A	1005	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<u>1st Protective Action Decision:</u> Evacuate 1 & 2, Shelter 3		1115	1115	1113	1110	1110	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2 nd Siren Activation		N/A	N/A	1113	N/A	1113	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2 nd EAS Message		N/A	N/A	1113	N/A	1114	N/A	N/A	N/A	N/A	N/A	N/A	N/A
3 rd Siren Activation		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
3 rd EAS Message		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
KI Recommended to Emergency Workers		1117	1114	1115	1118	1119	1125	1126	N/A	1125	N/A	N/A	N/A
Embargo Decision (Final)		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Exercise Terminated		1645	1527	N/A	1510	1413	1550	1515	1500	1450	1137	1555	1602

Legend: N/A – Not Applicable

IV. Evaluation and Results

Contained in this section are the results and findings of the evaluation of all jurisdictions and locations that participated in the September 9 and 10, 2008 biennial Radiological Emergency Preparedness (REP) exercise. The exercise was held to test the offsite emergency response capabilities of local governments in the 10-mile Emergency Planning Zone (EPZ) surrounding the Columbia Generating Station (CGS).

Each jurisdiction and functional entity was evaluated on the basis of its demonstration of the exercise evaluation area criteria contained in the REP Exercise Evaluation Methodology. Detailed information on the exercise evaluation area criteria and the extent-of-play agreement used in this exercise are found in Appendix 3 of this report.

A. Summary Results of Exercise Evaluation

The matrix presented in Table 2, on the following pages, presents the status of the exercise evaluation area criteria from the REP Exercise Evaluation Methodology that were scheduled for demonstration during this exercise by all participating jurisdictions and functional entities. Exercise evaluation area criteria are listed by number and the demonstration status of the criteria is indicated by the use of the following letters:

- M Met (No Deficiency or Area Requiring Corrective Action (ARCA) assessed and no unresolved ARCAs from prior exercises)
- A ARCA(s) assessed
- R Resolved ARCA(s) from prior exercises
- U Unresolved ARCA(s) from prior exercises

TABLE 2. SUMMARY RESULTS OF EXERCISE EVALUATION

DATE AND SITE: September 9-10, 2008 Columbia Generating Station

JURISDICTION/LOCATION	1. a. 1	1. b. 1	1. c. 1	1. d. 1	1. e. 1	2. a. 1	2. b. 1	2. b. 2	2. c. 1	2. d. 1	2. e. 1	3. a. 1	3. b. 1	3. c. 1	3. c. 2	3. d. 1	3. d. 2	3. e. 1	3. e. 2	3. f. 1	4. a. 1	4. a. 2	4. a. 3	4. b. 1	4. c. 1	5. a. 1	5. a. 2	5. a. 3	5. b. 1	6. a. 1	6. b. 1	6. c. 1	6. d. 1			
STATE OF WASHINGTON																																				
Washington State Emergency Operations Center (SEOC)	M	M	M	M	M	M		M		M								M		M							M			M						
Washington Agriculture Emergency Operations Center (EOC)	M	M	M	M	M													M	M																	
Emergency Operations Facility (EOF) - MUDAC	M	M	M	M	A	M	M			M	M	M	M					M				M														
Washington Field Monitoring Team (FMT) # 1	M			M	M	M						M	M								M		M	M												
Washington Field Monitoring Team (FMT) # 2	M			M	M	M						M	M								M		M	M												
Joint Information Center (JIC)	M	M	M	M	M																												M			
WASHINGTON RISK JURISDICTIONS																																				
BENTON COUNTY																																				
Benton County EOC	M	M	M	M	M			M	M	M	M	M	M	M		M	M	M	M	M							M			M						
FRANKLIN COUNTY																																				
Franklin County EOC	M	M	M	M	M			M	M	M	M	M	M	M	M	M	M	M	M	M							M			M						
Traffic & Access Control Points	M			M	M	M						M	M			M																				
Bus Driver Interview												M	M		M																					
School Interview																																				
Milk Sample				M								M	M																							
Food Control			M	M	M	M						M	M								M															
WASHINGTON SUPPORT JURISDICTIONS																																				
ADAMS COUNTY EOC	M	M	A	M	M																															
GRANT COUNTY EOC	M	M	M	M	M																															
WALLA-WALLA CO. EOC	M	M	M	M	M					M									M	M																
YAKIMA COUNTY EOC	M	M	M	M	M					M									M																	
STATE OF OREGON																																				
OREGON ENERGY EOC	M	M	M	M	M					M																										
Oregon Field Monitoring Team (FMT) # 1	M			M	M	M						A	M									M		M	M											
Oregon Field Monitoring Team (FMT) # 2	M			M	M	M						M	M									M		M	M											
OREGON SUPPORT JURISDICTIONS																																				
MORROW COUNTY EOC	M	M	M	M	M					M									M	M														M		
UMATILLA COUNTY EOC	M	M	M	M	M					M									M	R													M			

LEGEND: M = Met (no Deficiency or ARCA(s) assessed)
R = Resolved ARCA(s) from prior exercises

A = ARCA(s) assessed
U = Unresolved ARCA(s) from prior exercise

A¹ = ARCA(s) assessed but successfully re-demonstrated
Blank = Not scheduled for demonstration

B. Status of Jurisdictions Evaluated

This subsection provides information on the evaluation of each participating and functional entity in a jurisdiction-based, issues-only format. Presented below are definitions of the terms used in this subsection relative to criteria demonstration status.

- **Met** – Listing of the demonstrated exercise evaluation area criteria under which no Deficiencies or ARCAs were assessed during this exercise and under which no ARCAs assessed during prior exercises remain unresolved.
- **Deficiency** – Listing of the demonstrated exercise evaluation area criteria under which one or more Deficiencies were assessed during this exercise. Included is a description of each Deficiency and recommended corrective actions.
- **Area Requiring Corrective Action** – Listing of the demonstrated exercise evaluation area criteria under which one or more ARCAs were assessed during the current exercise. Included is a description of the ARCAs assessed during this exercise and the recommended corrective actions to be demonstrated before or during the next biennial exercise.
- **Not Demonstrated** – Listing of the exercise evaluation area criteria that were scheduled to be demonstrated during this exercise, but were not demonstrated and the reason they were not demonstrated.
- **Prior ARCAs – Resolved** – Descriptions of ARCAs assessed during previous exercises that were resolved in this exercise and the corrective actions demonstrated.
- **Prior ARCAs – Unresolved** – Descriptions of ARCAs assessed during prior exercises that were not resolved in this exercise. Included are the reasons the ARCAs remain unresolved and recommended corrective actions to be demonstrated before or during the next biennial exercise.

The following are definitions of the two types of exercise issues that are discussed in this report.

- A **Deficiency** is defined in the 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 the 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.”

The Federal Emergency Management Agency (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.
- **Evaluation Area Criterion** – A letter and number corresponding to the criteria in the FEMA REP Exercise Evaluation Methodology.
- **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.

1.0 STATE OF WASHINGTON

1.1 Washington State Emergency Operations Center

- a. **MET:** 1.a.1 2.a.1 3.e.1 5.a.1
1.b.1 2.b.2 3.f.1 5.b.1
1.c.1 2.d.1
1.d.1
1.e.1
- b. **DEFICIENCY:** None
- c. **AREAS REQUIRING CORRECTIVE ACTION:** None
- d. **NOT DEMONSTRATED:** None
- e. **PRIOR ARCAs – RESOLVED:** None
- f. **PRIOR ARCAs – UNRESOLVED:** None

1.2 Washington Department of Agricultural Emergency Operations Center

- a. **MET:** 1.a.1 3.e.1
1.b.1 3.e.2
1.c.1
1.d.1
1.e.1
- b. **DEFICIENCY:** None
- c. **AREAS REQUIRING CORRECTIVE ACTION:** None
- d. **NOT DEMONSTRATED:** None
- e. **PRIOR ARCAs – RESOLVED:** None
- f. **PRIOR ARCAs – UNRESOLVED:** None

1.3 Emergency Operations Facility – Meteorology and Unified Dose Assessment Center

- a. **MET:** 1.a.1 2.a.1 3.a.1 4.a.2
1.b.1 2.b.1 3.b.1
1.c.1 2.d.1
1.d.1 2.e.1

- b. **DEFICIENCY:** None
- c. **AREAS REQUIRING CORRECTIVE ACTION:** One (1.e1)

Issue Number: 69-08-1.e.1-A-01

Condition: Per the Extent of Play (EOP) agreement for the Washington Department of Health (WDOH) under criterion 3.a.1, “Emergency Operations Facility (EOF) staff will use Electronic Personnel Dosimeters (EPD) and Thermoluminescent Dosimeters (TLD) only.” Additionally, the Radiological Emergency Response Procedures (RERP), Section 2, for each position responding to the EOF, states that each Emergency Worker Kit should contain an EPD. Per the EOP for WDOH under criterion 1.e.1, “Calibration records for instrumentation will be made available upon request.” All calibration records were requested for WDOH dosimetry, but there were no calibration records for the Siemens EPDs.

Possible Cause: According to the WDOH Program Manager, the Siemens EPDs were surplus items that the department received at no cost, but after receipt, the WDOH staff was not confident in the EPD reliability. The Program Manager did not change the EOP and RERP to reflect that Direct Reading Dosimeters (DRDs) would be used in lieu of EPDs.

References: NUREG-0654, H.7, 10; J.10.a, b, e; J.11; K.3.a

Effect: The EPDs cannot be considered reliable if not within calibration. Since the WDOH staff responds to an onsite EOF, the potential for plume or deposition exposure exists. As such, the EPDs may not alarm at the turn around value set point, nor accurately reflect emergency worker exposures that could ultimately result in exceeding administrative exposure limits. However, in lieu of the EPDs, the WDOH staff was issued DRDs that could have been monitored to check exposures while en route to the EOF.

Recommendation: Since the WDOH Program Manager stated that the Siemens EPDs are not considered reliable, either acquire reliable EPDs, or change the RERP to reflect that DRDs will be used by WDOH staff responding to the EOF, and remove reference to the EPDs.

- d. **NOT DEMONSTRATED:** None

- e. **PRIOR ARCAs – RESOLVED:** None
- f. **PRIOR ARCAs – UNRESOLVED:** None

1.4 a Washington Field Monitoring Team # 1

- a. **MET:** 1.a.1 2.a.1 3.a.1 4.a.1
 1.d.1 3.b.1 4.b.1
 1.e.1 4.a.3
- b. **DEFICIENCY:** None
- c. **AREAS REQUIRING CORRECTIVE ACTION:** None
- d. **NOT DEMONSTRATED:** None
- e. **PRIOR ARCAs – RESOLVED:** None
- f. **PRIOR ARCAs – UNRESOLVED:** None

1.4 b Washington Field Monitoring Team # 2

- a. **MET:** 1.a.1 2.a.1 3.a.1 4.a.1
 1.d.1 3.b.1 4.b.1
 1.e.1 4.a.3
- b. **DEFICIENCY:** None
- c. **AREAS REQUIRING CORRECTIVE ACTION:** None
- d. **NOT DEMONSTRATED:** None
- e. **PRIOR ARCAs – RESOLVED:** None
- f. **PRIOR ARCAs – UNRESOLVED:** None

1.5 Joint Information Center

- a. **MET:** 1.a.1 5.b.1
 1.b.1
 1.c.1
 1.d.1
 1.e.1
- b. **DEFICIENCY:** None

- c. **AREAS REQUIRING CORRECTIVE ACTION:** None
- d. **NOT DEMONSTRATED:** None
- e. **PRIOR ARCAs – RESOLVED:** None
- f. **PRIOR ARCAs – UNRESOLVED:** None

2.0 WASHINGTON RISK JURISDICTIONS

2.1 Benton County

2.1.1 Benton County Emergency Operations Center

- a. **MET:** 1.a.1 2.b.2 3.a.1 5.a.1
1.b.1 2.c.1 3.b.1 5.b.1
1.c.1 2.d.1 3.c.1
1.d.1 2.e.1 3.d.1
1.e.1 3.d.2
3.e.1
3.e.2
3.f.1
- b. **DEFICIENCY:** None
- c. **AREAS REQUIRING CORRECTIVE ACTION:** None
- d. **NOT DEMONSTRATED:** None
- e. **PRIOR ARCAs – RESOLVED:** None
- f. **PRIOR ARCAs – UNRESOLVED:** None

2.2 Franklin County

2.2.1 Franklin County Emergency Operations Center

- a. **MET:** 1.a.1 2.b.2 3.a.1
1.b.1 2.c.1 3.b.1
1.c.1 2.d.1 3.c.1
1.d.1 2.e.1 3.c.2
1.e.1 3.d.1
3.d.2
3.e.1
3.e.2
3.f.1
- b. **DEFICIENCY:** None
- c. **AREAS REQUIRING CORRECTIVE ACTION:** None
- d. **NOT DEMONSTRATED:** None

- e. **PRIOR ARCAs – RESOLVED:** None
- f. **PRIOR ARCAs – UNRESOLVED:** None

2.2.2 Franklin County Traffic and Access Control Points

- a. **MET:** 1.a.1 2.a.1 3.a.1
 1.c.1 3.b.1
 1.d.1 3.d.1
 1.e.1
- b. **DEFICIENCY:** None
- c. **AREAS REQUIRING CORRECTIVE ACTION:** None
- d. **NOT DEMONSTRATED:** None
- e. **PRIOR ARCAs – RESOLVED:** None
- f. **PRIOR ARCAs – UNRESOLVED:** None

2.2.3 Bus Driver Interview

- a. **MET:** 3.a.1
 3.b.1
 3.c.2
- b. **DEFICIENCY:** None
- c. **AREAS REQUIRING CORRECTIVE ACTION:** None
- d. **NOT DEMONSTRATED:** None
- e. **PRIOR ARCAs – RESOLVED:** None
- f. **PRIOR ARCAs – UNRESOLVED:** None

2.2.4 Edwin Markham School Interview

- a. **MET:** 3.c.2
- b. **DEFICIENCY:** None
- c. **AREAS REQUIRING CORRECTIVE ACTION:** None
- d. **NOT DEMONSTRATED:** None

- e. **PRIOR ARCAs – RESOLVED:** None
- f. **PRIOR ARCAs – UNRESOLVED:** None

2.2.5 Washington State Department of Agriculture Milk Sampling Drill

- a. **MET:** 1.d.1 3.a.1 4.b.1
3.b.1
- b. **DEFICIENCY:** None
- c. **AREAS REQUIRING CORRECTIVE ACTION:** None
- d. **NOT DEMONSTRATED:** None
- e. **PRIOR ARCAs – RESOLVED:** None
- f. **PRIOR ARCAs – UNRESOLVED:** None

2.2.6 Washington State Department of Agriculture Food Control Drill

- a. **MET:** 1.c.1 2.a.1 3.a.1 4.a.1
1.d.1 3.b.1 4.b.1
1.e.1
- b. **DEFICIENCY:** None
- c. **AREAS REQUIRING CORRECTIVE ACTION:** None
- d. **NOT DEMONSTRATED:** None
- e. **PRIOR ARCAs – RESOLVED:** None
- f. **PRIOR ARCAs – UNRESOLVED:** None

3.0 WASHINGTON SUPPORT JURISDICTIONS

3.1 Adams County Emergency Operations Center

- a. **MET:** 1.a.1
1.b.1
1.d.1
1.e.1
- b. **DEFICIENCY:** None
- c. **AREAS REQUIRING CORRECTIVE ACTION:** One (1.c.1)

Issue Number: 69-08-1.c.1-A-03

Condition: The level or degree of threat to the public was overstated in the Commissioners’ Declaration of Emergency, and the draft document was not coordinated with the Joint Information Center, the Washington State Public Information Office, and/or other adjacent jurisdictions prior to its release to the public. The declaration warned that “extensive radiological contamination is anticipated within all or part of the Ingestion Exposure Emergency Planning Zone,” and also stated that there was a “threat of life” unless further efforts were taken to reduce that threat. In actuality, when the declaration was issued, little threat to Adams County residents existed, because the radioactive plume was trending away from the County, and only a small corner of Adams County was in the edge of the conservative planning area (90 degrees both sides from the plume centerline) for potential agricultural and food control concern.

Possible Cause: Inexperience of the acting Public Information Officer (PIO), who was appointed by the Director of Emergency Management, because the designated and trained PIO was not in attendance at the Adams County Emergency Operations Center to participate in exercise activities.

References: NUREG-0654, E.5.7; G.3.a; G.4.c

Effect: Undue alarm and/or over-reaction by the public which could potentially cause fear, panic, and/or actions leading to unnecessary financial loss to members of the public

Recommendation: Assure that a trained Public Information Officer is present at Emergency Operations Center during radiological emergencies, and provide specific training to all staff

members, including the Emergency Management Coordinator, to assure that Plan procedures relative to coordination with the Joint Information Center, Washington State Public Information Office, and adjacent Counties prior to release of information to the public are followed.

- d. **NOT DEMONSTRATED:** None
- e. **PRIOR ARCAs – RESOLVED:** None
- f. **PRIOR ARCAs – UNRESOLVED:** None

3.2 Grant County Emergency Operations Center

- a. **MET:** 1.a.1
1.b.1
1.c.1
1.d.1
1.e.1
- b. **DEFICIENCY:** None
- c. **AREAS REQUIRING CORRECTIVE ACTION:** None
- d. **NOT DEMONSTRATED:** None
- e. **PRIOR ARCAs – RESOLVED:** None
- f. **PRIOR ARCAs – UNRESOLVED:** None

3.3 Walla Walla County Emergency Operations Center

- a. **MET:** 1.a.1 2.d.1 3.e.1
1.b.1 3.e.2
1.c.1
1.d.1
1.e.1
- b. **DEFICIENCY:** None
- c. **AREAS REQUIRING CORRECTIVE ACTION:** None
- d. **NOT DEMONSTRATED:** None

- e. **PRIOR ARCAs – RESOLVED:** None
- f. **PRIOR ARCAs – UNRESOLVED:** None

3.4 Yakima County Emergency Operations Center

- a. **MET:** 1.a.1 2.d.1 3.e.1
1.b.1
1.c.1
1.d.1
1.e.1
- b. **DEFICIENCY:** None
- c. **AREAS REQUIRING CORRECTIVE ACTION:** None
- d. **NOT DEMONSTRATED:** None
- e. **PRIOR ARCAs – RESOLVED:** None
- f. **PRIOR ARCAs – UNRESOLVED:** None

4.0 STATE OF OREGON

4.1 Oregon Energy Emergency Operations Center

- a. **MET:** 1.a.1 2.d.1 4.a.2 5.b.1
1.b.1
1.c.1
1.d.1
1.e.1
- b. **DEFICIENCY:** None
- c. **AREAS REQUIRING CORRECTIVE ACTION:** None
- d. **NOT DEMONSTRATED:** None
- e. **PRIOR ARCAs – RESOLVED:** None
- f. **PRIOR ARCAs – UNRESOLVED:** None

4.2 a Oregon Field Monitoring Team # 1

- a. **MET:** 1.a.1 2.a.1 3.b.1 4.a.1
1.d.1 4.a.3
1.e.1 4.b.1
- b. **DEFICIENCY:** None
- c. **AREAS REQUIRING CORRECTIVE ACTION:** One (3.a.1)

Issue Number: 69-08-3.a.1-A-04

Condition: Two of three members of the Oregon Field Monitoring Team #1 and one of three members of Oregon Field Monitoring Team #2 from the Oregon Public Health Division, as well as a member of the Oregon Department of Agriculture (ODA) assisting in the collection of milk samples did not have permanent record dosimeters (PRDs). The remaining field team members wore the PRDs they routinely wear.

Possible Cause: It may have been assumed that field team members would already have PRDs and that none would need be included in the kits.

References: NUREG-0654, K.3.a
Oregon Public Health Division Procedures Tab D,
Table D.1; Tab G, Personnel Monitoring Supplies
(page 4)
Oregon Department of Agriculture Procedures,
Section III.

Effect: Since the DRDs are less accurate than PRDs, and reading exposures below about 100 milliroentgens (mR) is difficult using a 0-5 roentgen (R) DRD, members of the field monitoring and sampling teams without PRDs would have a less accurate and incomplete record of their exposure. In addition the PRD is a legal record and the DRDs are not.

Recommendation: Dosimetry, including PRDs, should be included in the emergency kits along with the DRDs and distributed to all sampling team members prior to their deployment from the Assembly Point.

- d. **NOT DEMONSTRATED:** None
- e. **PRIOR ARCAs – RESOLVED:** None
- f. **PRIOR ARCAs – UNRESOLVED:** None

4.2 b Oregon Field Monitoring Team # 2

- a. **MET:** 1.a.1 2.a.1 3.a.1 4.a.1
1.d.1 3.b.1 4.a.3
1.e.1 4.b.1
- b. **DEFICIENCY:** None
- c. **AREAS REQUIRING CORRECTIVE ACTION:** None
- d. **NOT DEMONSTRATED:** None
- e. **PRIOR ARCAs – RESOLVED:** None
- f. **PRIOR ARCAs – UNRESOLVED:** None

5.0 OREGON SUPPORT JURISDICTIONS

5.1 Morrow County Emergency Operations Center

- a. **MET:** 1.a.1 2.d.1 3.e.1 5.b.1
1.b.1 3.e.2
1.c.1
1.d.1
1.e.1
- b. **DEFICIENCY:** None
- c. **AREAS REQUIRING CORRECTIVE ACTION:** None
- d. **NOT DEMONSTRATED:** None
- e. **PRIOR ARCAs – RESOLVED:** None
- f. **PRIOR ARCAs – UNRESOLVED:** None

5.2 Umatilla County Emergency Operations Center

- a. **MET:** 1.a.1 2.d.1 3.e.1 5.b.1
1.b.1 3.e.2
1.c.1
1.d.1
1.e.1
- b. **DEFICIENCY:** None
- c. **AREAS REQUIRING CORRECTIVE ACTION:** None
- d. **NOT DEMONSTRATED:** None
- e. **PRIOR ARCAs – RESOLVED:** One (3.e.2)

Issue Number: 69-03-3.e.2-A-01

Condition: Umatilla County did not have a supply of Oregon’s Hanford Emergency Preparedness Brochure that was to be distributed to the public and the agricultural community during the early phase of the incident. No supply of pre-printed copies available at distribution points. OR Energy web-site showed brochure available only during drills and actual events. No letters of Agreement available with designated public distribution points.

Corrective Action Demonstrated: Umatilla County had a supply of the State of Oregon Department of Energy Brochure “Hanford Emergency Preparedness” (ODOE-NUC-005, 1/04) on-hand at their Emergency Operations Center. There was a package (500 copies each) bundled and labeled for the following distribution locations: Food Control Point; Umatilla Point of Entry; Umatilla City Hall; Umatilla County Emergency Operations Center; Hermiston Safeway; Hermiston Safety Center; Hermiston Wal-Mart; and Stanfield City Hall. At 1202 on Day 1 of the exercise, the package for all but the Umatilla County Emergency Operations Center were sent to the Hermiston Safety Center (where they would normally be stored.)

Umatilla County has verbal agreements with the Safeway and the Wal-Mart in Hermiston to be a distribution point for the brochures. They are also working on an agreement with the Pendleton Grain Growers Association to become another distribution point.

The Oregon CGS/Hanford Plan (May, 2008) does designate the Department of Energy as responsible for providing the counties with information materials for distribution to farmers, dairies, food processors, and others (p. 9-3). However, there is no agency designated as responsible for revision of these information materials. ODOE has posted the brochure permanently on their website.

- f. **PRIOR ARCAs – UNRESOLVED:** None

APPENDIX 1:

Acronyms and Abbreviations

A&N	Alert and Notification
ACP	Access Control Point
ARC 3031	American Red Cross document <i>Mass Care – Preparedness and Operations</i>
ARCA	Area Requiring Corrective Action
ATL	Assistant Team Leader
CFR	Code of Federal Regulations
CGS	Columbia Generating Station
DA	Dose Assessment
DRD	Direct Reading Dosimeter
DRP	Division of Radiation Protection
EAL	Emergency Action Level
EAS	Emergency Alerting System
EBS	Emergency Broadcast System
ECL	Emergency Classification Level
EOC	Emergency Operations Center
EOF	Emergency Operations Facility
EOP	Extent of Play
EPA	(U.S.) Environmental Protection Agency
EPD	Electronic Personnel Dosimeter
EPZ	Emergency Planning Zone
FDA	Food and Drug Administration
FEMA	Federal Emergency Management Agency
FMT	Field Monitoring Team
FR	Federal Register
FRERP	Federal Radiological Emergency Response Plan
GE	General Emergency
ICF	ICF International
IPZ	Ingestion Pathway Emergency Planning Zone
JIC	Joint Information Center
KI	Potassium Iodide
MS-1	Medical Services Drill

NOUE	Notice of Unusual Event
NRC	U.S. Nuclear Regulatory Commission
NUREG-0654	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
ODA	Oregon Department of Agriculture
ODOE	Oregon Department of Energy
ODOT	Oregon Department of Transportation
OEM	Oregon Emergency Management
ORO	Offsite Response Organization
PAD	Protective Action Decision
PAG	Protective Action Guidance
PAR	Protective Action Recommendation
PIO	Public Information Officer
PRD	Permanent Record Dosimeter
RAC	Regional Assistance Committee
RAP	Radiological Assistance Program
REP	Radiological Emergency Preparedness
RERP	Radiological Emergency Response Plan
R/hr	Roentgens per hour
SAE	Site Area Emergency
SD	School District
SEOC	State Emergency Operations Center
TCP	Traffic Control Point
TEDE	Total Effective Dose Equivalent
TL	Team Leader
TLD	Thermoluminescent Dosimeter
WDOH	Washington Department of Health
WSDA	Washington State Department of Agriculture

APPENDIX 2:

Exercise Evaluators and Team Leaders

The following is a list of the personnel who evaluated the Columbia Generating Station (CGS) exercise on September 9 and 10, 2008. Evaluator Team Leaders (TL) and Assistant Team Leaders (ATL) are indicated by the letters after their organization's name. The organization each evaluator represents is indicated by the following abbreviations:

EPA (U.S.) Environmental Protection Agency
FEMA Federal Emergency Management Agency
ICF ICF International

<u>OBSERVERS-AT-LARGE</u>	<u>NAME</u>	<u>ORGANIZATION</u>
Mike Hammond	RAC Chair	FEMA Region X
Janet Hlavaty-LaPosa	Site Specialist	FEMA Region X

1. Biennial Plume Exercise — September 9, 2008

<u>EVALUATION SITE</u>	<u>EVALUATOR</u>	<u>ORGANIZATION</u>
STATE OF WASHINGTON		
State Emergency Operations Center	Roy Smith (TL) Thomas Essig Dan Prevo Marcy Campbell	ICF ICF ICF ICF
Emergency Operations Facility	Joe Keller (TL) Rick Poeton Brad McRee	ICF EPA ICF
WA Field Monitoring Team #1	Daryl Thome	ICF
WA Field Monitoring Team #2	Marynette Herndon	ICF
Joint Information Center	Paul Nied Robert Gantt Glen Kinnear	ICF ICF ICF
WASHINGTON RISK JURISDICTIONS		
Benton County EOC	Henry Christiansen (TL) Davis Zhen Dave Petta	ICF EPA ICF
Franklin County EOC	Terry Blackmon (TL) Jim McClanahan Jon Fox	ICF ICF ICF
Bus Driver Interview (Pasco Co. SD)	John Flynn	ICF
School Interview (Principal of Edwin Markham School)	John Flynn	ICF
WASHINGTON SUPPORT JURISDICTIONS		
Adams County EOC	Lyle Slagle (TL)	ICF
Grant County EOC	Patrick Taylor	ICF
Walla Walla County EOC	Gary Goldberg (TL) Gary Bolender	ICF ICF
Yakima County EOC	Ernie Boaze (TL) Alan Bevan	ICF ICF
STATE OF OREGON		
Oregon Energy EOC	Richard Grundstrom (TL) Frank Cordaro	ICF ICF
OR Field Monitoring Team #1	Dave Stuenkel	ICF
OR Field Monitoring Team #2	Denny Wilford	ICF
OREGON SUPPORT JURISDICTIONS		
Morrow County EOC	Simon Guereca (TL) Carl Wentzell	ICF ICF
Umatilla County EOC	Richard Echavarria James Groves	FEMA ICF

2. Ingestion Jurisdictions — September 10, 2008

<u>EVALUATION SITE</u>	<u>EVALUATOR</u>	<u>ORGANIZATION</u>
STATE OF WASHINGTON		
State Emergency Operations Center	Roy Smith (TL) Thomas Essig Dan Prevo Marcy Campbell	ICF ICF ICF ICF
Washington Ag EOC	Marcy Campbell	ICF
Emergency Operations Facility	Joe Keller (TL) Rick Poeton Brad McRee	ICF EPA ICF
WA Field Monitoring Team #1	Daryl Thome	ICF
WA Field Monitoring Team #2	Marynette Herndon	ICF
Joint Information Center	Paul Nied Robert Gantt Glen Kinnear	ICF ICF ICF
WASHINGTON RISK JURISDICTIONS		
Benton County EOC	Henry Christiansen (TL) Davis Zhen Dave Petta	ICF EPA ICF
Franklin County EOC	Terry Blackmon (TL) Jim McClanahan Jon Fox	ICF ICF ICF
Traffic & Access Control Points (Franklin Co. Sheriff @ Franklin Co. Public Works	John Flynn	ICF
Milk Sample	Lynn Mariano	ICF
Food Control	Lynn Mariano	ICF
WASHINGTON SUPPORT JURISDICTIONS		
Walla Walla County EOC	Gary Goldberg (TL) Gary Bolender Alan Bevan	ICF ICF ICF
STATE OF OREGON		
Oregon Energy EOC	Richard Grundstrom (TL) Frank Cordaro	ICF ICF
OR Field Monitoring Team #1	Dave Stuenkel	ICF
OR Field Monitoring Team #2	Denny Wilford	ICF
OREGON SUPPORT JURISDICTIONS		
Morrow County EOC	Simon Guereca (TL) Carl Wentzell	ICF ICF
Umatilla County EOC	Richard Echavarria James Groves	FEMA ICF

APPENDIX 3:

Exercise Evaluation Area Criteria and Extent of Play Agreement

This appendix contains the extent of play agreements from the States of Washington and Oregon approved by the Federal Emergency Management Agency (FEMA) Region X on August 6, 2008 and August 13, 2008, respectively.

The exercise evaluation area criteria, contained in the “FEMA Radiological Emergency Preparedness Exercise Evaluation Methodology”, 67 FR 20580, April 25, 2002, 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 evaluation area criteria are intended for use at all nuclear power plant sites, and because of variations among offsite plans and procedures, an extent of play agreement is prepared by the State and approved by FEMA to provide evaluators with guidance on expected actual demonstration of the evaluation area criteria.

Extent of Play
Columbia Generating Station
Ingestion Pathway Exercise
September 9th – 10th, 2008
Washington State

EVALUATION AREA 1: EMERGENCY OPERATIONS MANAGEMENT

Sub element 1.a - Mobilization

Criterion 1.a.1: Offsite Response Organization's use effective procedures to alert, notify, and mobilize emergency personnel and activate facilities in a timely manner. (Interim REP Program Manual; NUREG-0654, A.4; D.3, 4; E.1, 2; H.4)

- Was this Criterion adequately demonstrated? YES _____ NO _____ N/A _____

If **NO**, identify all exercise issues on the following pages by addressing the elements listed on the attached **ISSUES FOR CRITERION – Narrative Summary** form.

Remember, if there is no effect or potential effect, there is no exercise issue.

- **Reminder:** Provide a complete evaluator packet to the Team Leader with a detailed written narrative, timeline of observations, and all forms and information used during the exercise. Cite outstanding performance where observed.
- The following **Intent, Extent of Play** and **Agency/County Extent of Play** information is provided for general reference only. Consult your Team Leader for how it applies to your assigned location.

Intent

This sub-element is derived from NUREG-0654, which provides that Offsite Response Organizations (OROs) should have the capability to alert, notify and mobilize emergency personnel and to activate and staff emergency facilities.

Extent of Play

Responsible Offsite Response Organization's should demonstrate the capability to receive notification of an emergency situation from the licensee, verify the notification, and contact, alert, and mobilize key emergency personnel in a timely manner.

Responsible Offsite Response Organization's should demonstrate the activation of facilities for immediate use by mobilized personnel when they arrive to begin emergency operations. Activation of facilities should be completed in accordance with the plan and/or procedures. Pre-positioning of emergency personnel is appropriate, in accordance with the extent of play agreement, at those facilities located beyond a normal commuting distance from the individual's duty location or residence. Further, pre-positioning of staff for out-of-sequence demonstrations is appropriate in accordance with the extent of play agreement.

All activities must be based on the Offsite Response Organization's plans and procedures and be completed as they would be in an actual emergency, unless noted above or otherwise indicated in the extent of play agreement.

WA State EOC: Emergency Management Division staff will be pre-positioned on day 1 at the State Emergency Operations Center located at Building #20, Camp Murray, WA. At the Alert declaration, the Emergency Management Division will demonstrate a real-time activation of the State Emergency Operations Center by notification to the emergency support functions to report to the State Emergency Operations Center in accordance with the WA State Integrated Fixed Facility Radiological & Chemical Protection Plan, WA State Comprehensive Emergency Management Plan (CEMP) and WA State Emergency Operations Plan (EOP).

- **Limitations:**
 - Washington State EMD Liaisons to offsite jurisdictions (**Benton, Franklin and Walla Walla Counties**) and JIC Staff will be pre-positioned in affected jurisdictions and, upon notification of exercise from State EOC, will delay reporting to assigned locations for a period of one hour. State EMD Liaison to Energy Northwest, who resides in the Tri-Cities, will report to EOF immediately upon notification from State EOC.
 - Washington State EOC will not demonstrate a shift change.

DOH

- **Limitations:**
 - Field teams, EOF and JIC staff will be pre-positioned at a central location in Richland. Personnel will respond to locations within 90 minutes of official notification.
 - EOC staff will depart from the offices in Tumwater. Personnel will respond to the EOC within 90 minutes of official notification.
 - Administrative support staff in the State EOC may be the same staff for day one and day two.
 - Notification to upper management and the laboratory will occur but no response or participation is required.
 - The Nuclear Engineer position will be demonstrated only on day 1.
 - One field team from day one activities will participate in the milk sampling activities on day two of the exercise. The milk sampling location will be pre determined and will be separate from all other Day two activities.
 - Pregnant Staff may be utilized in any emergency response position.
 - The Managing Executive will not be demonstrated during this exercise.
 - A trusted agent may participate as the FRMAC Liaison during the exercise.
 - Ingestion Phase staff will be pre-positioned at the appropriate centers and facilities.
 - All Ingestion sample locations will be pre determined and identified.

WSDA:

- **Limitations:**
 - WSDA will activate a Field Coordination Office in Pasco with one Field Office Coordinator on day two only. Play at this office will terminate when a 24 hour staffing roster is completed for the designated Food Control Points.
 - The PIO will be pre-positioned in the Richland area and will report one hour after notification.
 - WSDA will provide a liaison to the Emergency Operation Facility on day two only.
 - WSDA will provide one Food Safety Officer to staff a pre-determined Food Control Point in Franklin County on day two only. The Food Control Point will be demonstrated outside of the time flow of the exercise. No public traffic will be stopped, and driver contact procedures will be demonstrated by interview.
 - WSDA will demonstrate only one Milk Sampler, who will take one sample at a single dairy on day 2.
 - WSDA will establish an agency EOC in room 259 at the Natural Resource Building in Olympia on day two only. Only one phone team member will be staffed and the Executive Emergency Management Team will be simulated. **All phone calls will be simulated.**

Benton County:

EOC / Dispatch Center: Benton County exercise play limited to the Benton County EOC and the ENW JIC. Out of Sequence demonstrations will include a Contaminated Injured Drill.

River Patrol: Will be demonstrated out of sequence in 2010.

Franklin County:

EOC:

- Mobilization call outs will be simulated. All participants will be pre-positioned at their exercise locations.
- Activation of Franklin County EOC, JIC and EOF positions will include field demonstrations by selected county agencies. Field demonstrations will be staffed and evaluated consecutively in order to maximize use of evaluators and minimize time requirements on agencies conducting field demonstrations.
- Demonstration of security and EOC access control will terminate upon EOC being declared operational.

Dispatch Center: Franklin County/Pasco Dispatch Center will receive the initial notification from the Columbia Generating Station and alert Franklin County Emergency Management according to procedure. Franklin County Emergency

Management will receive and respond to all further notifications and faxes from the offices of Franklin County Emergency Management. As per the scenario, all further contacts with Franklin County/Pasco Dispatch will be simulated.

Adams County EOC:

- ***Limitations:***
 - Emergency Management Division staff will be pre-positioned at the EOC located at 2069 W. Hwy 26, Othello, Washington.
 - **Adams County will demonstrate objectives on Day 1 only.**

Grant County EOC:

- ***Limitations:***
 - Grant County EOC will not demonstrate a shift change.
 - Grant County EOC will not send representatives to the JIC or the EOF.
 - **Grant County will demonstrate objectives on Day 1 only.**

Walla Walla County EOC: Walla Walla County EOC will verify a notification of an emergency situation and if warranted, alert, notify and mobilize EOC staff and will activate the EOC. The EOC will not preposition staff. The EOC will alert, notify and mobilize only those staff members needed to participate in the exercise.

Yakima County EOC:

- ***Limitations:***
 - Yakima Valley Office of Emergency Management will utilize email, telephone, fax and radio to accomplish this criterion.
 - **Yakima County will demonstrate objectives on Day 1 only.**

Regional Limitations:

- Unless specifically stated within the limitations above day 2 will begin with a “hot start”.
- Exercise players reserve the right to immediately re-demonstrate any weakness as identified by the evaluation team.

Sub Element 1.b - Facilities

Criterion 1.b.1: Facilities are sufficient to support the emergency response. (Interim REP Program Manual; NUREG-0654, H.3)

- Was this Criterion adequately demonstrated? YES_____ NO_____ N/A_____

If **NO**, identify all exercise issues on the following pages by addressing the elements listed on the attached **ISSUES FOR CRITERION – Narrative Summary** form.

Remember, if there is no effect or potential effect, there is no exercise issue.

- **Reminder:** Provide a complete evaluator packet to the Team Leader with a detailed written narrative, timeline of observations, and all forms and information used during the exercise. Cite outstanding performance where observed.
- The following **Intent, Extent of Play** and **Agency/County Extent of Play** information is provided for general reference only. Consult your Team Leader for how it applies to your assigned location.

Intent

This sub-element is derived from NUREG-0654, which provides that Offsite Response Organizations (OROs) have facilities to support the emergency response.

Extent of Play

Facilities will only be specifically evaluated for this criterion if they are new or have substantial changes in structure or mission. Responsible Offsite Response Organization's should demonstrate the availability of facilities that support the accomplishment of emergency operations. Some of the areas to be considered are: adequate space, furnishings, lighting, restrooms, ventilation, backup power and/or alternate facility (if required to support operations).

Facilities must be set up based on the Offsite Response Organization's plans and procedures and be demonstrated as they would be used in an actual emergency, unless noted above or otherwise indicated in the extent of play agreement.

WA State EOC:

- **Limitations:**
 - Back-up power will not be demonstrated as part of the exercise. Use of backup power will be evaluated by interview and review of the backup power procedures and log.

DOH: Field teams may use vehicles which are not capable of driving on unpaved roads or off road.

WSDA: On Day 2, WSDA will demonstrate a new EOC located in Room 259 at the Natural Resource Building in Olympia, WA. **Backup power will not be demonstrated as part of this exercise.**

Benton County:

EOC/Dispatch Center: Back-up power will not be demonstrated as part of the exercise. Use of backup power may be evaluated by interview.

Southridge High School EW/AC: Will be demonstrated out of sequence in 2009.

Franklin County:

EOC:

- Back-up power will not be demonstrated as part of the exercise. Use of backup power will be evaluated by interview and review of the backup power procedure and log.
- Franklin County may use the newly installed WebEOC but will not be evaluated for its operation.

Columbia Basin College EW/AC: Previously demonstrated out of sequence on August 11, 2007.

Dispatch Center: A tour of the Franklin County/Pasco Dispatch Center will be performed by the appropriate evaluator to evaluate facility adequacy.

Adams County EOC:

- Facility has moved. Evaluation of emergency operations support to be completed.
- Backup power will not be demonstrated.

Grant County EOC: No Limitations.

Walla Walla County EOC: Back-up power will be demonstrated by interview and load test records.

Yakima County EOC: Facilities activated include local Operational Area Emergency Operations Center.

Regional Limitations:

- No intentional system failures will be included in this exercise.
- Exercise players reserve the right to immediately re-demonstrate any weakness as identified by the evaluation team.

Sub Element 1.c - Direction and Control

Criterion 1.c.1: Key personnel with leadership roles for the Offsite Response Organization's provide direction and control to that part of the overall response effort for which they are responsible.

(Interim REP Program Manual; NUREG-0654, A.1.d; A.2.a, b)

- Was this Criterion adequately demonstrated? YES _____ NO _____ N/A _____

If **NO**, identify all exercise issues on the following pages by addressing the elements listed on the attached **ISSUES FOR CRITERION – Narrative Summary** form.

Remember, if there is no effect or potential effect, there is no exercise issue.

- **Reminder:** Provide a complete evaluator packet to the Team Leader with a detailed written narrative, timeline of observations, and all forms and information used during the exercise. Cite outstanding performance where observed.
- The following **Intent, Extent of Play** and **Agency/County Extent of Play** information is provided for general reference only. Consult your Team Leader for how it applies to your assigned location.

Intent

This sub-element is derived from NUREG-0654, which provides that Offsite Response Organizations (OROs) have the capability to control their overall response to an emergency.

Extent of Play

Leadership personnel should demonstrate the ability to carry out essential functions of the response effort, for example: keeping the staff informed through periodic briefings and/or other means, coordinating with other appropriate Offsite Response Organization's and ensuring completion of requirements and requests.

All activities associated with direction and control must be performed based on the Offsite Response Organization's plans and procedures and be completed as they would be in an actual emergency, unless otherwise noted above or indicated in the extent of play agreement.

WA State EOC: Direction and Control will be demonstrated at the State Emergency Operations Center located at Building #20, Camp Murray, WA.

- **Limitation:** Discussion/coordination with Governor's office/staff will be simulated, as required.

DOH: Managing Executive will not be demonstrated.

WSDA: WSDA will demonstrate direction and control over WSDA response staff only.

Benton County EOC: No Limitations.

Franklin County EOC: All evacuations, shelters-in-place and EWAC activations will be simulated.

Adams County EOC: No Limitations.

Grant County EOC: No Limitations.

Walla Walla County EOC: Direction and control will be demonstrated in the EOC with activated staff. Staff not activated will be simulated.

Yakima County EOC: Discuss and/or coordinate with County Commission and the affected jurisdictions leadership within the county.

- **Limitation:** There will be no demonstrations by personnel in the field.

Regional Limitation: Exercise players reserve the right to immediately re-demonstrate any weakness as identified by the evaluation team.

Sub Element 1.d - Communications Equipment

Criterion 1.d.1: At least two communication systems are available, at least one operates properly, and communication links are established and maintained with appropriate locations. Communications capabilities are managed in support of emergency operations.

(Interim REP Program Manual; NUREG-0654, F.1, 2)

- Was this Criterion adequately demonstrated? YES _____ NO _____ N/A _____

If NO, identify all exercise issues on the following pages by addressing the elements listed on the attached **ISSUES FOR CRITERION – Narrative Summary** form.

Remember, if there is no effect or potential effect, there is no exercise issue.

- **Reminder:** Provide a complete evaluator packet to the Team Leader with a detailed written narrative, timeline of observations, and all forms and information used during the exercise. Cite outstanding performance where observed.
- The following **Intent, Extent of Play** and **Agency/County Extent of Play** information is provided for general reference only. Consult your Team Leader for how it applies to your assigned location.

Intent

This sub-element is derived from NUREG-0654, which provides that Offsite Response Organizations (OROs) should establish reliable primary and backup communication systems to ensure communications with key emergency personnel at locations such as the following: appropriate contiguous governments within the emergency planning zone.

Extent of Play

Responsible Offsite Response Organization's will demonstrate that a primary and at least one backup system are fully functional at the beginning of an exercise. If a communications system or systems are not functional, but exercise performance is not affected, no exercise issue will be assessed. Communications equipment and procedures for facilities and field units should be used as needed for the transmission and receipt of exercise messages. All facilities and field teams should have the capability to access at least one communication system that is independent of the commercial telephone system. Responsible Offsite Response Organization's should demonstrate the capability to manage the communication systems and ensure that all message traffic is handled without delays that might disrupt the conduct of emergency operations. Offsite Response Organization's should ensure that a coordinated communication link for fixed and mobile medical support facilities exists. The specific communications capabilities of Offsite Response Organization's should be commensurate with that specified in the response

plan and/or procedures. Exercise scenarios could require the failure of a communications system and the use of an alternate system, as negotiated in the extent of play agreement.

All activities associated with the management of communications capabilities must be demonstrated based on the Offsite Response Organization's plans and procedures and be completed as they would be in an actual emergency, unless otherwise noted above or in the extent of play agreement.

WA State EOC:

- Deliberate communications interruptions/outages are not planned; however, redundant systems will be used routinely in accordance with normally accepted standards and procedures.
- Amateur Radio will be available on the morning of day 1 only to support the local jurisdictions needs.

DOH

- ***Limitations:***
 - Field Teams and Field Team Coordinator will demonstrate the use of electronic data transfer via computers.
 - Computers, radios and cells are considered the modes of communication. Any combination of these modes is acceptable.
 - No planned failures.

WSDA: WSDA staff will demonstrate agency communications systems at the WSDA EOC. WSDA staff will also use State EOC, EOF, Benton County and Franklin County communications systems. Backup communications system at Food Control Points is law enforcement radio.

Benton County:

EOC / Dispatch Center: Benton County will use CEMNET and Amateur Radio to communicate with the Washington State EOC.

NOTE: A radio check via Amateur Radio will be conducted with the Washington State EOC Amateur Radio operators on the morning of day 1 only.

Southridge High School EW/AC: Will be demonstrated out of sequence in 2009.

Kennewick General Hospital (MS-1): Will be demonstrated out of sequence in 2012.

Kadlec Medical Center (MS-1): Will be demonstrated out of sequence in 2008.

Kennewick FD: Will be demonstrated out of sequence in 2012.

Richland FD: Will be demonstrated out of sequence in 2008.

River Patrol: Will be demonstrated out of sequence in 2010.

Franklin County:

EOC/Pasco Dispatch Center: The following communications systems are available at the Franklin County EOC:

- Commercial Telephone and Fax lines
- Energy Northwest CRASH Phone
- Dedicated Energy Northwest Dial-Up Lines
- LERN

Big River Country School: Will be demonstrated out of sequence in 2010.

Country Christian School: Will be demonstrated out of sequence in 2012.

Edwin Markham Elementary School: Initial communications to schools and daycare centers are performed via commercial phones. Backup communications would be provided by Franklin County Sheriff's Office sending a deputy to the appropriate location for direct communication with the affected facility. All communications with schools and daycare centers will be simulated. Evaluation for these criteria will be accomplished by interview.

Columbia Basin College EW/AC: Previously demonstrated out of sequence on August 11, 2007.

Lourdes Medical Center (MS-1): Will be demonstrated out of sequence in 2010.

Pasco FD: Will be demonstrated out of sequence in 2010.

KONA Radio: Not required to have multiple or backup communications.

Adams County EOC: Amateur Radio Operations will not be demonstrated.

Grant County EOC: Grant County has just recently moved into a new EOC. At this time Grant County does not have the ability to demonstrate CEMNET, HAM and EAS. Grant County is optimistic that these capabilities will be available and ready to be demonstrated at the time of the exercise.

Walla Walla County EOC: Through the course of the exercise, the EOC will demonstrate at least two means of successfully communicating with Washington State EOC and/or adjacent jurisdictions.

Yakima County EOC: There will be no deliberate communications failures as part of the scenario. Amateur radio operators will send and receive at least one message.

Regional Limitation: Exercise players reserve the right to immediately re-demonstrate any weakness as identified by the evaluation team.

Sub Element 1.e - Equipment and Supplies to Support Operation

Criterion 1.e.1: Equipment, maps, displays, dosimetry, potassium iodide (KI), and other supplies are sufficient to support emergency operations. (Interim REP Program Manual; NUREG-0654, H.7, 10; J.10.a, b, e, J.11; K.3.a)

- Was this Criterion adequately demonstrated? YES _____ NO _____ N/A _____

If **NO**, identify all exercise issues on the following pages by addressing the elements listed on the attached **ISSUES FOR CRITERION – Narrative Summary** form.

Remember, if there is no effect or potential effect, there is no exercise issue.

- **Reminder:** Provide a complete evaluator packet to the Team Leader with a detailed written narrative, timeline of observations, and all forms and information used during the exercise. Cite outstanding performance where observed.
- The following **Intent, Extent of Play** and **Agency/County Extent of Play** information is provided for general reference only. Consult your Team Leader for how it applies to your assigned location.

Intent

This sub-element is derived from NUREG-0654, which provides that Offsite Response Organizations (OROs) have emergency equipment and supplies adequate to support the emergency response.

Extent of Play

Equipment within the facility (facilities) should be sufficient and consistent with the role assigned to that facility in the Offsite Response Organization's plans and/or procedures in support of emergency operations. Use of maps and displays is encouraged.

All instruments, should be inspected, inventoried, and operationally checked before each use. Instruments should be calibrated in accordance with the manufacturer's recommendations. Unmodified CDV-700 series instruments and other instruments without a manufacturer's recommendation should be calibrated annually. Modified CDV-700 instruments should be calibrated in accordance with the recommendation of the modification manufacturer. A label indicating such calibration should be on each instrument or calibrated frequency can be verified by other means. Additionally, instruments being used to measure activity should have a range of readings sticker affixed to the side of the instrument. The above considerations should be included in the following criteria: 4.a.1 for field team equipment, 4.c.1 for radiological laboratory equipment (does not apply to analytical equipment), 6.a.1 for reception center and emergency worker facilities' equipment and 6.d.1 for ambulance and medical facility equipment.

Sufficient quantities of appropriate direct-reading and permanent record dosimetry and dosimeter chargers should be available for issuance to all categories of emergency workers that could be deployed from that facility. Appropriate direct-reading dosimetry should allow individual(s) to read the administrative reporting limits and maximum exposure limits contained in the Offsite Response Organization's plans and procedures.

Dosimetry should be inspected for electrical leakage at least annually and replaced, if necessary. CDV-138s, due to their documented history of electrical leakage problems, should be inspected for electrical leakage at least quarterly and replaced if necessary. This leakage testing will be verified during the exercise, through documentation submitted in the Annual Letter of Certification, and/or through a staff assistance visit.

Responsible Offsite Response Organization's should demonstrate the capability to maintain inventories of KI sufficient for use by emergency workers, as indicated on rosters; institutionalized individuals, as indicated in capacity lists for facilities; and, where stipulated by the plan and/or procedures, members of the general public (including transients) within the plume pathway Emergency Planning Zone.

Available quantities of dosimetry and KI and their storage locations(s) will be confirmed by physical inspection at the storage location(s) or through documentation of current inventory submitted during the exercise, provided in the Annual Letter of Certification submission, and/or verified during a staff assistance visit. Available supplies of KI should be within the expiration date indicated on KI bottles or blister packs. As an alternative, the Offsite Response Organization's may produce a letter from a certified private or State laboratory indicating that the KI supply remains potent, in accordance with U.S. Pharmacopoeia standards.

At locations where traffic and access control personnel are deployed, appropriate equipment (e.g., vehicles, barriers, traffic cones and signs, etc.) should be available or have their availability described.

All activities must be based on the Offsite Response Organization's plans and procedures and be completed as they would be in an actual emergency, unless noted above or otherwise indicated in the extent of play agreement.

WA State EOC: No Limitations.

DOH:

- **Limitation:** Calibration records for instrumentation will be made available upon request.

WSDA: Dosimetry and specialized field equipment and supplies for WSDA response staff are maintained at the Pasco Field Office.

Benton County:

EOC: Dosimetry and KI are reviewed during the annual FEMA Site Visit. This sub-element is limited to the EOC, EOF and out of sequence Medical Services drill.

TCPs: There will be no Benton County field demonstration of this criterion.

Southridge High School EW/AC: Will be demonstrated out of sequence in 2009.

Kennewick General Hospital (MS-1): Will be demonstrated out of sequence in 2012.

Kadlec Medical Center (MS-1): Will be demonstrated out of sequence in 2008.

Kennewick FD: Will be demonstrated out of sequence in 2012.

Richland FD: Will be demonstrated out of sequence in 2008.

River Patrol: Will be demonstrated out of sequence in 2010.

Franklin County:

EOC: No Limitations with the exception of KI. Supplies of KI are reviewed during the annual FEMA Site Visit.

TCPs: Evaluation will be by review of procedure and interview of exercise participants. This will be demonstrated at the Franklin County Public Works Yard.

Columbia Basin College EW/AC: Previously demonstrated out of sequence on August 11, 2007.

Lourdes Medical Center (MS-1): Will be demonstrated out of sequence in 2010.

Pasco FD: Will be demonstrated out of sequence in 2010.

Adams County EOC: No Limitations.

Grant County EOC: No Limitations.

Walla Walla County EOC: The equipment and supplies furnished in the EOC in order to provide effective coordination may be evaluated for sufficiency.

Yakima County EOC: Limitation: No radiation monitoring equipment will be demonstrated during the exercise.

Regional Limitations:

- No KI will be consumed during the exercise.
- Exercise players reserve the right to immediately re-demonstrate any weakness as identified by the evaluation team.

2. PROTECTIVE ACTION DECISION MAKING

Sub Element 2.a - Emergency Worker Exposure Control

Criterion 2.a.1: Offsite Response Organizations use a decision making process, considering relevant factors and appropriate coordination, to ensure that an exposure control system, including the use of KI, is in place for emergency workers including provisions to authorize radiation exposure in excess of administrative limits or protective action guides.

(Interim REP Program Manual; NUREG-0654, K.4, J.10.e, f)

- Was this Criterion adequately demonstrated? YES_____ NO_____ N/A_____

If NO, identify all exercise issues on the following pages by addressing the elements listed on the attached **ISSUES FOR CRITERION – Narrative Summary** form.

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- **Reminder:** Provide a complete evaluator packet to the Team Leader with a detailed written narrative, timeline of observations, and all forms and information used during the exercise. Cite outstanding performance where observed.
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Intent

This sub-element is derived from NUREG-0654, which provides that Offsite Response Organizations (OROs) have the capability to assess and control the radiation exposure received by emergency workers and have a decision chain in place, as specific in the ORO's plans and procedures, to authorize emergency worker exposure limits to be exceeded for specific missions.

Radiation exposure limits for emergency workers are the recommended accumulated dose limits or exposure rates that emergency workers may be permitted to incur during an emergency. These limits include any pre-established administrative reporting limits (that take into consideration Total Effective Dose or organ-specific limits) identified in the ORO's plans and procedures.

Extent of Play

Responsible Offsite Response Organization's authorized to send emergency workers into the plume exposure pathway Emergency Planning Zone should demonstrate a capability to meet the criterion based on their emergency plans and procedures.

Responsible Offsite Response Organization's should demonstrate the capability to make decisions concerning the authorization of exposure levels in excess of preauthorized levels and to the number of emergency workers receiving radiation dose above pre-authorized levels.

As appropriate, Offsite Response Organization's should demonstrate the capability to make decisions on the distribution and administration of KI as a protective measure, based on the Offsite Response Organization's plan and/or procedures or projected thyroid dose compared with the established Protective Action Guides (Protective Action Guides) for KI administration.

All activities must be based on the Offsite Response Organization's plans and procedures and be completed as they would be in an actual emergency, unless noted above or otherwise indicated in the extent of play agreement.

WA State EOC: Information relative to State Emergency Worker exposure control will be provided through discussions with DOH technical expert in the Emergency Operations Facility. The recommendation to ingest potassium iodide will be made by WA State Department of Health staff located at the Emergency Operations Facility and State EOC.

State Lab: Will be demonstrated out of sequence in June 2011.

DOH:

- **Limitations:**
 - Scenario will not warrant emergency workers needing to seek authorization for additional exposures.
 - Demonstrate the ability to calculate and notify emergency workers of one revised turn around value.

WSDA: WSDA field staffs (Food Control Point Workers and Milk Samplers) do not mobilize until the plume has settled and a Food Control Area has been defined, and they are prohibited by agency policy from exceeding the administrative (pre-authorized) turn back value for any mission.

Regional Limitations:

- No KI will be consumed during the exercise.
- Exercise players reserve the right to immediately re-demonstrate any weakness as identified by the evaluation team.

**Sub Element 2.b - Radiological Assessment and Protective Action
Recommendations and Decisions for the Plume Phase of the Emergency**

Criterion 2.b.1: Appropriate protective action recommendations are based on available information on plant conditions, field monitoring data, and licensee and Offsite Response Organization dose projections, as well as knowledge of onsite and offsite environmental conditions.

(Interim REP Program Manual; NUREG-0654, I.8, 10 and Supplement 3)

- Was this Criterion adequately demonstrated? YES _____ NO _____ N/A _____

If **NO**, identify all exercise issues on the following pages by addressing the elements listed on the attached **ISSUES FOR CRITERION – Narrative Summary** form.

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- The following **Intent, Extent of Play** and **Agency/County Extent of Play** information is provided for general reference only. Consult your Team Leader for how it applies to your assigned location.

Intent

This sub-element is derived from NUREG-0654, which provides that Offsite Response Organizations (OROs) have the capability to use all available data to independently project integrated dose from exposure rates or other information and compare the estimated dose savings with the protective action guides. OROs have the capability to choose, among a range of protective actions, those most appropriate in a given emergency situation. OROs base these choices on PAGs from the ORO's plans and procedures or EPA 400-R-92-001 and other criteria, such as, plant conditions, licensee protective action recommendations, coordination of protective action decisions with other political jurisdictions (e.g., other affected OROs), availability of appropriate in-place shelter, weather conditions, and situations that create higher than normal risk from evacuation.

Extent of Play

During the initial stage of the emergency response, following notification of plant conditions that may warrant offsite protective actions, the Offsite Response Organization's should demonstrate the capability to use appropriate means, described in the plan and/or procedures, to develop protective action recommendations for decision-makers based on available information and recommendations from the licensee and field monitoring data, if available.

When the licensee provides release and meteorological data, the Offsite Response Organization's also considers this data. The Offsite Response Organization's should demonstrate a reliable capability to independently validate dose projections. The types of calculations to be demonstrated depend on the data available and the need for assessments to support the Protective Action Recommendations appropriate to the scenario. In all cases, calculation of projected dose should be demonstrated. Projected doses should be related to quantities and units of the Protective Action Guide to which they will be compared. Protective Action Recommendations should be promptly transmitted to decision-makers in a prearranged format.

Differences greater than a factor of 10 between projected doses by the licensee and the Offsite Response Organization's should be discussed with the licensee with respect to the input data and assumptions used, the use of different models, or other possible reasons. Resolution of these differences should be incorporated into the Protective Action Recommendation if timely and appropriate. The Offsite Response Organization's should demonstrate the capability to use any additional data to refine projected doses and exposure rates and revise the associated Protective Action Recommendations.

All activities must be based on the Offsite Response Organization's plans and procedures and be completed as they would be in an actual emergency, unless noted above or otherwise indicated in the extent of play agreement.

WA State EOC: Not a State EOC Function.

DOH:

- ***Limitation:*** DOH dose assessor will not demonstrate an independent dose projection; however, per procedure, will coordinate dose projections with utility.

Benton County EOC: Energy Northwest Responsibility to develop Protective Action Recommendations based on Meteorological and Unified Dose Assessment Center information.

Franklin County EOC: Energy Northwest Responsibility to develop Protective Action Recommendations based on Meteorological and Unified Dose Assessment Center information.

Walla Walla County EOC: Not applicable.

Regional Limitations:

- EAS and Siren will be simulated.
- Exercise players reserve the right to immediately re-demonstrate any weakness as identified by the evaluation team.

Criterion 2.b.2: A decision-making process involving consideration of appropriate factors and necessary coordination is used to make protective action decisions for the general public (including the recommendation for the use of KI, if Offsite Response Organization policy).

(Interim REP Program Manual; NUREG-0654, J.9, 10.f, m)

- Was this Criterion adequately demonstrated? YES _____ NO _____ N/A _____

If NO, identify all exercise issues on the following pages by addressing the elements listed on the attached **ISSUES FOR CRITERION – Narrative Summary** form.

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Extent of Play

Offsite Response Organizations should have the capability to make both initial and subsequent Protective Action Decisions. They should demonstrate the capability to make initial Protective Action Decisions in a timely manner appropriate to the situation, based on notification from the licensee, assessment of plant status and releases, and Protective Action Recommendations from the utility and Offsite Response Organization staff.

The dose assessment personnel may provide additional Protective Action Recommendations based on the subsequent dose projections, field monitoring data, or information on plant conditions. The decision makers should demonstrate the capability to change protective actions as appropriate based on these projections.

If the Offsite Response Organization's has determined that KI will be used as a protective measure for the general public under offsite plans, then the Offsite Response Organization's should demonstrate the capability to make decisions on the distribution and administration of KI as a protective measure for the general public to supplement sheltering and evacuation. This decision should be based on the Offsite Response Organization's plan and/or procedures or projected thyroid dose compared with the established Protective Action Guide for KI administration. The KI decision making process should involve close coordination with appropriate assessment and decision-making staff.

If more than one Offsite Response Organization's is involved in decision-making, Offsite Response Organizations should communicate and coordinate Protective Action Decisions with affected Offsite Response Organization's. Offsite Response Organization's should

demonstrate the capability to communicate the contents of decisions to the affected jurisdictions.

All decision-making activities by Offsite Response Organization's personnel must be performed based on the Offsite Response Organization's plans and procedures and be completed as they would be in an actual emergency, unless noted above or otherwise indicated in the extent of play agreement.

WA State EOC: The State will demonstrate implementation of initial and subsequent protective action decisions (state coordination role only with counties implementing) based on utility protective action recommendations and in accordance with the State Integrated Fixed Facility Radiological & Chemical Protection Plan and CEMP.

DOH: No limitations.

Benton County EOC: No Limitations. No KI is stored or intended for use by the General Public.

Franklin County EOC: No Limitations.

Walla Walla County EOC: Not Applicable.

Regional Limitation: Exercise players reserve the right to immediately re-demonstrate any weakness as identified by the evaluation team.

Sub Element 2.c - Protective Action Decisions for Protection of Special Populations:

Criterion 2.c.1: Protective action decisions are made, as appropriate, for special population groups.
(Interim REP Program Manual; NUREG-0654, J.9, J.10.d, e)

- Was this Criterion adequately demonstrated? YES _____ NO _____ N/A _____

If **NO**, identify all exercise issues on the following pages by addressing the elements listed on the attached **ISSUES FOR CRITERION – Narrative Summary** form.

Remember, if there is no effect or potential effect, there is no exercise issue.

- **Reminder:** Provide a complete evaluator packet to the Team Leader with a detailed written narrative, timeline of observations, and all forms and information used during the exercise. Cite outstanding performance where observed.
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Intent

This sub-element is derived from NUREG-0654, which provides that Offsite Response Organizations (OROs) should have the capability to determine protective action recommendations, including evacuation, sheltering and use of potassium iodide (KI), if applicable, for special population groups (e.g., hospitals, nursing homes, correctional facilities, schools, licensed day care centers, mobility impaired individuals, and transportation dependent individuals). Focus is on those special population groups that are (or potentially will be) affected by a radiological release from a nuclear power plant.

Extent of Play

Usually, it is appropriate to implement evacuation in areas where doses are projected to exceed the lower end of the range of Protective Action Guides, except for situations where there is a high-risk environment or where high-risk groups (e.g., the immobile or infirm) are involved. In these cases, examples of factors that should be considered are: weather conditions, shelter availability, availability of transportation assets, risk of evacuation vs. risk from the avoided dose, and precautionary school evacuations. In situations where an institutionalized population cannot be evacuated, the administration of KI should be considered by the Offsite Response Organization's.

Applicable Offsite Response Organization's should demonstrate the capability to alert and notify all public school systems/districts of emergency conditions that are expected to or may necessitate protective actions for students. Contacts with public school systems/districts must be actual.

In accordance with plans and/or procedures, Offsite Response Organization's and/or officials of public school systems/districts should demonstrate the capability to make prompt decisions on protective actions for students. Officials should demonstrate that the decision making process for protective actions considers (that is, either accepts automatically or gives heavy weight to) protective action recommendations made by Offsite Response Organization personnel, the EAL at which these recommendations are received, preplanned strategies for protective actions for that EAL, and the location of students at the time (for example, whether the students are still at home, en route to the school, or at the school).

All decision-making activities associated with protective actions, including consideration of available resources, for special population groups must be based on the Offsite Response Organization's plans and procedures and be completed as they would be in an actual emergency, unless noted above or otherwise indicated in the extent of play agreement.

WA State EOC: Not a State Function.

Benton County EOC: Those identified as needing evacuation assistance will be called during the exercise to update information and determine how many would have needed assistance if it had been a real emergency

Franklin County EOC:

- ***Limitations:***
 - A sample of three phone calls to those transportation dependant individuals (special assistance populations will not be called) will be called during the course of the exercise. Additional notifications will not be conducted.
 - Transportation missions will be simulated.

Walla Walla County EOC: Not Applicable.

Regional Limitation: Exercise players reserve the right to immediately re-demonstrate any weakness as identified by the evaluation team.

Sub Element 2.d - Radiological Assessment and Decision-Making for the Ingestion Exposure Pathway

**Criterion 2.d.1: Radiological consequences for the ingestion pathway are assessed and appropriate protective action decisions are made based on the Offsite Response Organization planning criteria.
(Interim REP Program Manual; NUREG-0654, I.8, J.11)**

- Was this Criterion adequately demonstrated? YES _____ NO _____ N/A _____

If NO, identify all exercise issues on the following pages by addressing the elements listed on the attached **ISSUES FOR CRITERION – Narrative Summary** form.
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Intent

This sub-element is derived from NUREG-0654, which provides that Offsite Response Organizations (OROs) have the means to assess the radiological consequences for the ingestion exposure pathway, relate them to the appropriate PAGs, and make timely, appropriate protective action decisions to mitigate exposure from the ingestion pathway.

During an accident at a nuclear power plant, a release of radioactive material may contaminate water supplies and agriculture products in the surrounding areas. Any such contamination would likely occur during the plume phase of the accident and, depending on the nature of the release, could impact the ingestion pathway for weeks or years.

Extent of Play

It is expected that the Offsite Response Organization will take precautionary actions to protect food and water supplies, or to minimize exposure to potentially contaminated water and food, in accordance with their respective plans and procedures. Often such precautionary actions are initiated by the Offsite Response Organization's based on criteria related to the facility's emergency classification levels. Such actions may include recommendations to place milk animals on stored feed and to use protected water supplies.

The Offsite Response Organization should use its procedures (for example, development of a sampling plan) to assess the radiological consequences of a release on the food and water

supplies. The Offsite Response Organization's assessment should include the evaluation of the radiological analyses of representative samples of water, food, and other ingestible substances of local interest from potentially impacted areas, the characterization of the releases from the facility, and the extent of areas potentially impacted by the release. During this assessment, Offsite Response Organization's should consider the use of agricultural and watershed data within the 50-mile Emergency Planning Zone. The radiological impacts on the food and water should then be compared to the appropriate ingestion Protective Action Guides contained in the Offsite Response Organization's plan and/or procedures. The plan and/or procedures may contain Protective Action Guides based on specific dose commitment criteria or based on criteria as recommended by current Food and Drug Administration guidance. Timely and appropriate recommendations should be provided to the Offsite Response Organization decision-makers group for implementation decisions. As time permits, the Offsite Response Organization may also include a comparison of taking or not taking a given action on the resultant ingestion pathway dose commitments.

The Offsite Response Organization should demonstrate timely decisions to minimize radiological impacts from the ingestion pathway, based on the given assessments and other information available. Any such decisions should be communicated and to the extent practical, coordinated with neighboring and local Offsite Response Organization's.

Offsite Response Organization's should use Federal resources, as identified in the Federal Radiological Emergency Response Plan, and other resources (e.g., compacts, nuclear insurers, etc), if available. Evaluation of this criterion will take into consideration the level of Federal and other resources participating.

All activities must be based on the Offsite Response Organization's plans and procedures and be completed as they would be in an actual emergency, unless noted above or otherwise indicated in the extent of play agreement.

WA State EOC: No Limitations

DOH:

- **Limitations:**
 - MUDAC staff will prepare an initial Food Control isopleth and one revised Food Control isopleth.
 - The revised Food Control isopleth is based on 20 sample analyses.
 - The sample analyses will be controller interjected and have no bearing on field team activities.
 - MUDAC staff may interact with the FRMAC secure website and CMHT during the exercise; however decisions are still based on DOH procedures.
 - The interaction between MUDAC and FRMAC will not be evaluated.
 - Field Team Coordinator may receive isopleth survey results via a control cell or field teams for approximately 20 readings.
 - Simulated data will be generated by FRMAC or contractors. Data will be delivered via controller as appropriate.

WSDA: The WSDA County Liaison at Benton County will make an Agricultural Advisory Area recommendation to the affected counties. The WSDA EOF Liaison will assist with developing a detailed sampling plan at the EOF. The WSDA Executive Liaison at the State EOC will participate with the Policy Group to approve a Food Control Area and Food Control Point locations.

Benton County EOC: County participation limited to proposing geo-political boundaries of a food control area and discussion with State decision makers

Franklin County EOC: SCENARIO DEPENDENT. Franklin County will identify the geo-political boundary for those portions of the Controlled Area and/or the Food Control Area that lie within Franklin County. Franklin County will coordinate with adjacent jurisdictions to ensure that geo-political boundaries are aligned.

Walla Walla County EOC: Through a discussion of actions, Walla Walla County will demonstrate precautionary actions to protect food and water supplies, or to minimize exposure to potentially contaminated water and food, in accordance with respective plans and procedures. After receiving a measured dose line on a map, Walla Walla County will demonstrate its ability to develop a Food Control Area, Food Control Points and Traffic Control Points. This information will be coordinated with affected adjacent jurisdictions and sent to Washington State EOC.

Yakima County EOC:

- The Operational Area Emergency Operations Center staff will inform the leadership and elected officials of affected jurisdictions of the State's decision.
- Operational Area EOC staff will identify the geo-political boundary for those portions of the Controlled Area and/or the Food Control Area that lie within Yakima County. If needed, Yakima County will coordinate with adjacent jurisdictions to ensure that geo-political boundaries are aligned.

Regional Limitation: Exercise players reserve the right to immediately re-demonstrate any weakness as identified by the evaluation team.

Sub Element 2.e - Radiological Assessment and Decision-Making Concerning Relocation, Re-entry, and Return

Criterion 2.e.1: Timely relocation, re-entry, and return decisions are made and coordinated as appropriate, based on assessments of the radiological conditions and criteria in the Offsite Response Organization's plan and/or procedures. (Interim REP Program Manual; NUREG-0654, A.1.b, I.10; M.1)

- Was this Criterion adequately demonstrated? YES _____ NO _____ N/A _____

If NO, identify all exercise issues on the following pages by addressing the elements listed on the attached **ISSUES FOR CRITERION – Narrative Summary** form.

Remember, if there is no effect or potential effect, there is no exercise issue.

- **Reminder:** Provide a complete evaluator packet to the Team Leader with a detailed written narrative, timeline of observations, and all forms and information used during the exercise. Cite outstanding performance where observed.
- The following **Intent, Extent of Play** and **Agency/County Extent of Play** information is provided for general reference only. Consult your Team Leader for how it applies to your assigned location.

Intent

This sub-element is derived from NUREG-0654, which provides that Offsite Response Organizations (OROs) have the capability to make decisions on relocation, reentry and return of the general public. These decisions are essential for the protection of the public from the direct long-term exposure to deposited radioactive materials from a severe accident at a nuclear power plant.

Extent of Play

Relocation: Offsite Response Organizations should demonstrate the capability to estimate integrated dose in contaminated areas and to compare these estimates with Protective Action Guides, apply decision criteria for relocation of those individuals in the general public who have not been evacuated but where projected doses are in excess of relocation Protective Action Guides and control access to evacuated and restricted areas. Decisions are made for relocating members of the evacuated public who lived in areas that now have residual radiation levels in excess of the Protective Action Guides. Determination of areas to be restricted should be based on factors such as the mix of radionuclides in deposited materials, calculated exposure rates vs. the Protective Action Guides and field samples of vegetation and soil analyses.

Re-entry: Decisions should be made regarding the location of control points and policies regarding access and exposure control for emergency workers and members of the

general public who need to temporarily enter the evacuated area to perform specific tasks or missions.

Examples of control procedures are: the assignment of, or checking for direct-reading and non-direct-reading dosimetry for emergency workers; questions regarding the individual's objectives and locations expected to be visited and associated time frames; availability of maps and plots of radiation exposure rates; advice on areas to avoid; and procedures for exit including; monitoring of individuals, vehicles, and equipment; decision criteria regarding decontamination and proper disposition of emergency worker dosimetry and maintenance of emergency worker radiation exposure records.

Responsible Offsite Response Organizations should demonstrate the capability to develop a strategy for authorized re-entry of individuals into the restricted zone, based on established decision criteria. Offsite Response Organizations should demonstrate the capability to modify those policies for security purposes (e.g., police patrols), for maintenance of essential services (e.g., fire protection and utilities), and for other critical functions. They should demonstrate the capability to use decision making criteria in allowing access to the restricted zone by the public for various reasons, such as to maintain property (e.g., to care for farm animals or secure machinery for storage), or to retrieve important possessions. Coordinated policies for access and exposure control should be developed among all agencies with roles to perform in the restricted zone. Offsite Response Organizations should demonstrate the capability to establish policies for provision of dosimetry to all individuals allowed re-entry to the restricted zone. The extent that Offsite Response Organizations need to develop policies on re-entry will be determined by scenario events.

Return: Decisions are to be based on environmental data and political boundaries or physical/geological features, which allow identification of the boundaries of areas to which members of the general public may return. Return is permitted to the boundary of the restricted area that is based on the relocation Protective Action Guide.

Other factors that the Offsite Response Organization should consider are, for example: conditions that permit the cancellation of the Emergency Classification Level and the relaxation of associated restrictive measures; basing return recommendations (i.e., permitting populations that were previously evacuated to reoccupy their homes and businesses on an unrestricted basis) on measurements of radiation from ground deposition; and the capability to identify services and facilities that require restoration within a few days and to identify the procedures and resources for their restoration. Examples of these services and facilities are: medical and social services, utilities, roads, schools, and intermediate term housing for relocated persons.

All activities must be based on the Offsite Response Organization's plans and procedures and be completed as they would be in an actual emergency, unless noted above or otherwise indicated in the extent of play agreement.

WA State EOC:

- **Limitation:**
 - Revised relocation and revised food control decision packages will not be demonstrated.
 - At the discretion of the control cell decision packages can be injected at an appropriate time in an effort to keep play going.

DOH:

- **Limitations:**
 - WDOH MUDAC staff will demonstrate one revised Relocation Isopleth.
 - The State EOC and the county EOCs will not demonstrate revising the relocation area.
 - The JIC will receive controller interject of a revised relocation area map with Geo political boundaries.
 - MUDAC may relocate themselves to the JIC after all EOF criteria is demonstrated. MUDAC staff will continue to support JIC activities as necessary.
- **DOH will successfully re-demonstrate the following ARCA from the 2002 Ingestion exercise:**
 - Area Requiring Corrective Action (ARCA) Issue NO: 69-02-2e.1-A-03 will be demonstrated during the second day of activities.

Benton County EOC: County participation limited to proposing geo-political boundaries of a relocation area and discussion with State decision makers concerning relocation, re-entry and return

Franklin County EOC: SCENARIO DEPENDENT. To be evaluated by review of the appropriate procedures and interview of EOC Staff.

Walla Walla County EOC: Not Applicable.

Regional Limitation: Exercise players reserve the right to immediately re-demonstrate any weakness as identified by the evaluation team.

3. PROTECTIVE ACTION IMPLEMENTATION

Sub Element 3.a - Implementation of Emergency Worker Exposure Control:

Criterion 3.a.1: The Offsite Response Organizations issue appropriate dosimetry and procedures, and manage radiological exposure to emergency workers in accordance with the plans and procedures. Emergency workers periodically and at the end of each mission read their dosimeters and record the readings on the appropriate exposure record or chart.

(Interim REP Program Manual; NUREG-0654, K.3.a, b)

- Was this Criterion adequately demonstrated? YES_____ NO_____ N/A_____

If NO, identify all exercise issues on the following pages by addressing the elements listed on the attached **ISSUES FOR CRITERION – Narrative Summary** form.

Remember, if there is no effect or potential effect, there is no exercise issue.

- **Reminder:** Provide a complete evaluator packet to the Team Leader with a detailed written narrative, timeline of observations, and all forms and information used during the exercise. Cite outstanding performance where observed.
- The following **Intent, Extent of Play** and **Agency/County Extent of Play** information is provided for general reference only. Consult your Team Leader for how it applies to your assigned location.

Intent

This sub-element is derived from NUREG-0654, which provides that Offsite Response Organizations (OROs) should have the capability to provide for the following: distribution, use, collection and processing of direct-reading dosimetry and permanent record dosimetry; the reading of direct-reading dosimetry by emergency workers at appropriate frequencies; maintaining a radiation dose record for each emergency worker; and establishing a decision chain or authorization procedure for emergency workers to incur radiation exposures in excess of protective action guides, always applying the ALARA (As Low As is Reasonably Achievable) principle as appropriate..

Extent of Play

Offsite Response Organizations should demonstrate the capability to provide appropriate direct-reading and permanent record dosimetry, dosimeter chargers, and instructions on the use of dosimetry to emergency workers. For evaluation purposes, appropriate direct-reading dosimetry is defined as dosimetry that allows individual(s) to read the administrative reporting limits (pre-established at a level low enough to consider subsequent calculation of Total Effective Dose Equivalent) and maximum exposure

limits (pre-established for those emergency workers involved in life saving activities) contained in the Offsite Response Organization's plans and procedures.

Each emergency worker should have the basic knowledge of radiation exposure limits as specified in the Offsite Response Organization's plan and/or procedures. Procedures to monitor and record dosimeter readings and to manage radiological exposure control should be demonstrated.

During a plume phase exercise, emergency workers should demonstrate the procedures to be followed when administrative exposure limits and turnback values are reached. The emergency worker should report accumulated exposures during the exercise as indicated in the plans and procedures. Offsite Response Organizations should demonstrate the actions described in the plan and/or procedures by determining whether to replace the worker, to authorize the worker to incur additional exposures or to take other actions. If scenario events do not require emergency workers to seek authorizations for additional exposure, evaluators should interview at least two emergency workers, to determine their knowledge of whom to contact in the event authorization is needed and at what exposure levels. Emergency workers may use any available resources (e.g., written procedures and/or coworkers) in providing responses.

Although it is desirable for all emergency workers to each have a direct-reading dosimeter, there may be situations where team members will be in close proximity to each other during the entire mission and adequate control of exposure can be maintained for all members of the team by one dosimeter worn by the team leader. Emergency workers who are assigned to low exposure rate areas, e.g., at reception centers, counting laboratories, emergency operations centers, and communications centers, may have individual direct-reading dosimeters or they may be monitored by dosimeters strategically placed in the work area. It should be noted that, even in these situations, each team member must still have their own permanent record dosimetry.

Individuals without specific radiological response missions, such as farmers for animal care, essential utility service personnel, or other members of the public who must re-enter an evacuated area following or during the plume passage, should be limited to the lowest radiological exposure commensurate with completing their missions.

All activities must be based on the Offsite Response Organization's plans and procedures and be completed as they would be in an actual emergency, unless noted above or otherwise indicated in the extent of play agreement.

WA State EOC: State Liaison to facility will obtain emergency worker kit from Benton County prior to responding to EOF.

DOH:

- **Limitations:**
 - Scenario will not warrant emergency workers to seek authorization for additional exposures.

- Field teams will use Electronic Pocket Dosimeters as the primary dosimeter. 1 EPD issued per field team member.
- EOF staff will use EPDs and TLDs only.

WSDA:

- WSDA EOF Liaison and Food Control Point Workers are class three emergency workers and will use only the TLD dosimeters. Milk Samplers are class one emergency workers and will use both the Direct reading and TLD dosimeters.
- WSDA field staff (Food Control Point Workers and Milk Samplers) will demonstrate knowledge of dosimetry and procedures on day 2 only at the FCP drill and the Milk Sampler drill.
- The WSDA EOF Liaison will play only on day 2 and will report to the EOF with dosimetry.

Benton County:

EOC: The demonstration of this sub-element is limited to the EOF and out of sequence Medical Services Drill

TCPs: There will be no Benton County field demonstration of this criterion. Law enforcement representatives at the Benton County EOC may be interviewed concerning this criterion.

Pasco School District: Will read their dosimetry this year as Bus Drivers (Transportation) not as public/private schools.

Kennewick General Hospital (MS-1): Will be demonstrated out of sequence in 2012.

Kennewick FD: Will be demonstrated out of sequence in 2012.

Richland FD: Will be demonstrated out of sequence in 2008.

River Patrol: Will be demonstrated out of sequence in 2010.

Franklin County:

EOC / TCPs / Pasco School District Transportation Section: To be demonstrated by Franklin County Sheriffs Office (FCSO) and Pasco School District Transportation Section (PSD).

- **LOCATION OF DEMONSTRATIONS:** FCSO will sign for Emergency Worker Kits at the FCSO Squad Room (Franklin County Courthouse). PSD will sign for Emergency Worker Kits at the PSD Transportation Office (3412 N. Stearman Ave, Pasco).

Columbia Basin College EW/AC: Previously demonstrated out of sequence on August 11, 2007.

Lourdes Medical Center (MS-1): Will be demonstrated out of sequence in 2010.

Pasco FD: Will be demonstrated out of sequence in 2010.

Walla Walla County EOC: Not Applicable.

Regional Limitation: Exercise players reserve the right to immediately re-demonstrate any weakness as identified by the evaluation team.

Sub Element 3.b - Implementation of KI Decisions

Criterion 3.b.1: KI and appropriate instructions are available should a decision to recommend use of KI be made. Appropriate record keeping of the administration of KI for emergency workers and institutionalized individuals (not the general public) is maintained.

(Interim REP Program Manual; NUREG-0654, E.7, J.10.e & f)

- Was this Criterion adequately demonstrated? YES _____ NO _____ N/A _____

If NO, identify all exercise issues on the following pages by addressing the elements listed on the attached **ISSUES FOR CRITERION – Narrative Summary** form.

Remember, if there is no effect or potential effect, there is no exercise issue.

- **Reminder:** Provide a complete evaluator packet to the Team Leader with a detailed written narrative, timeline of observations, and all forms and information used during the exercise. Cite outstanding performance where observed.
- The following **Intent, Extent of Play** and **Agency/County Extent of Play** information is provided for general reference only. Consult your Team Leader for how it applies to your assigned location.

Intent

This sub-element is derived from NUREG-0654, which provides that Offsite Response Organizations (OROs) should have the capability to provide radioprotective drugs for emergency workers, institutionalized individuals, and, if in the plan and/or procedures, to the general public for whom immediate evacuation may not be feasible, very difficult, or significantly delayed. While it is necessary for OROs to have the capability to provide KI to emergency workers and institutionalized individuals, the provision of KI to the general public is an ORO option and is reflected in ORO's plans and procedures. Provisions should include the availability of adequate quantities, storage and means of the distribution of radioprotective drugs.

Extent of Play

Offsite Response Organizations should demonstrate the capability to make KI available to emergency workers, institutionalized individuals, and, where provided for in the Offsite Response Organization plan and/or procedures, to members of the general public. Offsite Response Organizations should demonstrate the capability to accomplish distribution of KI consistent with decisions made. Organizations should have the capability to develop and maintain lists of emergency workers and institutionalized individuals who have ingested KI, including documentation of the date(s) and time(s) they were instructed to ingest KI. The ingestion of KI recommended by the designated Offsite Response Organization health official is voluntary. For evaluation purposes, the

actual ingestion of KI is not necessary. Offsite Response Organizations should demonstrate the capability to formulate and disseminate appropriate instructions on the use of KI for those advised to take it. If a recommendation is made for the general public to take KI, appropriate information should be provided to the public by the means of notification specified in the Offsite Response Organization's plan and/or procedures.

Emergency workers should demonstrate the basic knowledge of procedures for the use of KI whether or not the scenario drives the use of KI. This can be accomplished by an interview with the evaluator.

All activities must be based on the Offsite Response Organization's plans and procedures and be completed, as they would be in an actual emergency, unless noted above or otherwise indicated in the extent of play agreement.

WA State EOC: State Liaison to facility will obtain emergency worker kit from Benton County prior to responding to EOF.

DOH: See regional limitation.

Benton County:

EOC: The demonstration of this sub-element is limited to the EOC and EOF.

TCPs: There will be no Benton County field demonstration of this criterion. Law enforcement representatives at the Benton County EOC may be interviewed concerning this criterion.

River Patrol: Will be demonstrated out of sequence in 2010.

Franklin County:

EOC / TCPs / Pasco School District Transportation Section: Evaluation will be by review of procedure and interview of exercise participants.

Walla Walla County EOC: Not Applicable.

Regional Limitation:

- No KI will be consumed during the exercise.
- Exercise players reserve the right to immediately re-demonstrate any weakness as identified by the evaluation team.

Sub Element 3.c - Implementation of Protective Actions for Special Populations:

Criterion 3.c.1: Protective action decisions are implemented for special populations other than schools within areas subject to protective actions. (Interim REP Program Manual; NUREG-0654, J.10.c, d, g)

- Was this Criterion adequately demonstrated? YES _____ NO _____ N/A _____

If **NO**, identify all exercise issues on the following pages by addressing the elements listed on the attached **ISSUES FOR CRITERION – Narrative Summary** form.

Remember, if there is no effect or potential effect, there is no exercise issue.

- **Reminder:** Provide a complete evaluator packet to the Team Leader with a detailed written narrative, timeline of observations, and all forms and information used during the exercise. Cite outstanding performance where observed.
- The following **Intent, Extent of Play** and **Agency/County Extent of Play** information is provided for general reference only. Consult your Team Leader for how it applies to your assigned location.

Intent

This sub-element is derived from NUREG-0654, which provides that Offsite Response Organizations (OROs) should have the capability to implement protective action decisions, including evacuation and/or sheltering, for all special populations. Focus is on those special populations that are (or potentially will be) affected by a radiological release from a nuclear power plant.

Extent of Play

Applicable Offsite Response Organizations should demonstrate the capability to alert and notify (for example, provide protective action recommendations and emergency information and instructions) special populations (hospitals, nursing homes, correctional facilities, mobility impaired individuals, transportation dependent, etc.). Offsite Response Organizations should demonstrate the capability to provide for the needs of special populations in accordance with the Offsite Response Organization's plans and procedures.

Contact with special populations and reception facilities may be actual or simulated, as agreed to in the Extent of Play. Some contacts with transportation providers should be actual, as negotiated in the extent of play. All actual and simulated contacts should be logged.

All implementing activities associated with protective actions for special populations must be based on the Offsite Response Organization's plans and procedures and be

completed as they would be in an actual emergency, unless noted above or otherwise indicated in the extent of play agreement.

Benton County EOC: Those identified as needing evacuation assistance will be called during the exercise to update information and determine how many would have needed assistance if it had been a real emergency

Franklin County EOC: A sample of three (3) phone calls will be made to those residents of the Franklin County portion of the Energy Northwest EPZ identified as requiring transportation assistance in the event of an emergency. Transportation missions will be simulated.

Walla Walla County EOC: Not Applicable.

Regional Limitation: Exercise players reserve the right to immediately re-demonstrate any weakness as identified by the evaluation team.

Criterion 3.c.2: Offsite Response Organizations/School Officials implement protective actions for schools.
(Interim REP Program Manual; NUREG-0654, J.10.c, d, g)

- Was this Criterion adequately demonstrated? YES _____ NO _____ N/A _____

If **NO**, identify all exercise issues on the following pages by addressing the elements listed on the attached **ISSUES FOR CRITERION – Narrative Summary** form.

Remember, if there is no effect or potential effect, there is no exercise issue.

- **Reminder:** Provide a complete evaluator packet to the Team Leader with a detailed written narrative, timeline of observations, and all forms and information used during the exercise. Cite outstanding performance where observed.
- The following **Intent, Extent of Play** and **Agency/County Extent of Play** information is provided for general reference only. Consult your Team Leader for how it applies to your assigned location.

Extent of Play

Public school systems/districts shall demonstrate the ability to implement protective action decisions for students. The demonstration shall be made as follows: At least one school in each affected school system or district, as appropriate, needs to demonstrate the implementation of protective actions. Implementation procedures for canceling the school day, dismissing early or sheltering should be simulated by describing those procedures to evaluators. If evacuation is the implemented protective action, all activities to coordinate and complete the evacuation of students to reception centers, congregate care centers, or host schools may actually be demonstrated or accomplished through an interview process. If accomplished through an interview process, appropriate school personnel including decision making officials (e.g., superintendent/principal, transportation director/bus dispatcher), and at least one bus driver (and the bus driver's escort, if applicable) should be available to demonstrate knowledge of their role(s) in the school evacuation process. Communications capabilities between school officials and the buses, if required by the plan and/or procedures, should be verified.

Officials of the school system(s) should demonstrate the capability to develop and provide timely information to Offsite Response Organizations for use in messages to parents, the general public, and the media on the status of protective actions for schools.

The provisions of this criterion also apply to any private schools, private kindergartens and day care centers that participate in Radiological Emergency Preparedness exercises pursuant to the Offsite Response Organization's plans and procedures as negotiated in the extent of play agreement.

All activities must be based on the Offsite Response Organization's plans and procedures and be completed as they would in an actual emergency, unless noted above or otherwise indicated in the extent of play agreement.

Franklin County:

Big River Country School: Will be demonstrated out of sequence in 2010.

Country Christian Center: Will be demonstrated out of sequence in 2012.

Edwin Markham Elementary School: Initial communications to schools and daycare centers are performed via commercial phones. Backup communications would be provided by Franklin County Sheriff's Office sending a deputy to the appropriate location for direct communication with the affected facility. All communications with schools and daycare centers will be simulated. Evaluation for these criteria will be accomplished by interview.

Pasco School District Transportation Section: Pasco School District Transportation Personnel will sign out Emergency Worker Kit(s) and describe actions to be taken upon directed to evacuate Edwin Markham Elementary School. Transportation mission will be simulated.

Regional Limitation: Exercise players reserve the right to immediately re-demonstrate any weakness as identified by the evaluation team.

Sub Element 3.d - Implementation of Traffic and Access Control.

Criterion 3.d.1: Appropriate traffic and access control is established. Accurate instructions are provided to traffic and access control personnel. (Interim REP Program Manual; NUREG-0654, J.10.g, j)

- Was this Criterion adequately demonstrated? YES _____ NO _____ N/A _____

If **NO**, identify all exercise issues on the following pages by addressing the elements listed on the attached **ISSUES FOR CRITERION – Narrative Summary** form.

Remember, if there is no effect or potential effect, there is no exercise issue.

- **Reminder:** Provide a complete evaluator packet to the Team Leader with a detailed written narrative, timeline of observations, and all forms and information used during the exercise. Cite outstanding performance where observed.
- The following **Intent, Extent of Play** and **Agency/County Extent of Play** information is provided for general reference only. Consult your Team Leader for how it applies to your assigned location.

Intent

This sub-element is derived from NUREG-0654, which provides that Offsite Response Organizations (OROs) have the capability to implement protective action plans, including relocation and restriction of access to evacuate / sheltered areas. This sub-element focus on selecting, establishing and staging of traffic and access control points removal of impediments to the flow of evacuation traffic.

Extent of Play

Offsite Response Organizations should demonstrate the capability to select, establish, and staff appropriate traffic and access control points, consistent with protective action decisions (for example, evacuating, sheltering, and relocation), in a timely manner. Offsite Response Organizations should demonstrate the capability to provide instructions to traffic and access control staff on actions to take when modifications in protective action strategies necessitate changes in evacuation patterns or in the area(s) where access is controlled.

Traffic and access control staff should demonstrate accurate knowledge of their roles and responsibilities. This capability may be demonstrated by actual deployment or by interview, in accordance with the extent of play agreement.

In instances where Offsite Response Organizations lack authority necessary to control access by certain types of traffic (rail, water, and air traffic), they should demonstrate the capability to contact the State or Federal agencies with authority to control access.

All activities must be based on the Offsite Response Organization’s plans and procedures and be completed as they would be in an actual emergency, unless noted above or otherwise indicated in the extent of play agreement.

WSDA: WSDA will demonstrate a single Food Control Point at Franklin County Public Works Yard.

Benton County:

EOC / TCPs: There will be no Benton County field demonstration of this criterion. Law enforcement representatives at the Benton County EOC may be interviewed concerning this criterion.

Franklin County:

EOC / TCPs:

- Franklin County Sheriffs Office (FCSO) will participate during this exercise.
- One representative from FCSO will sign for Emergency Worker Kit and describe actions to be taken at an Access Control Point (ACP).
- Demonstration of the ACP will occur in the parking lot of the Franklin County Public Works Yard. The “Roadblock” portion of the ACP will be in accordance with the agency’s specific Standard Operating Procedures.

Walla Walla County EOC: Not Applicable.

Yakima County EOC: No personnel will be dispatched and no Access Control Points will be established in the field. All field activities will be simulated.

Regional Limitation: Exercise players reserve the right to immediately re-demonstrate any weakness as identified by the evaluation team.

**Criterion 3.d.2: Impediments to evacuation are identified and resolved.
(Interim REP Program Manual; NUREG-0654, J.10, k)**

- Was this Criterion adequately demonstrated? YES _____ NO _____ N/A _____

If **NO**, identify all exercise issues on the following pages by addressing the elements listed on the attached **ISSUES FOR CRITERION – Narrative Summary** form.

Remember, if there is no effect or potential effect, there is no exercise issue.

- **Reminder:** Provide a complete evaluator packet to the Team Leader with a detailed written narrative, timeline of observations, and all forms and information used during the exercise. Cite outstanding performance where observed.
- The following **Intent, Extent of Play** and **Agency/County Extent of Play** information is provided for general reference only. Consult your Team Leader for how it applies to your assigned location.

Extent of Play

Offsite Response Organizations should demonstrate the capability, as required by the scenario, to identify and take appropriate actions concerning impediments to evacuation. Actual dispatch of resources to deal with impediments, such as wreckers, need not be demonstrated; however, all contacts, actual or simulated should be logged.

All activities must be based on the Offsite Response Organization’s plans and procedures and be completed as they would be in an actual emergency, unless noted above or otherwise indicated in the extent of play agreement.

Benton County:

EOC: There will be no county field demonstration of this issue. EOC Staff will coordinate the removal of a SIMULATED impediment to evacuation.

Franklin County:

EOC: EOC Staff will coordinate the SIMULATED removal of an impediment to evacuation.

Walla Walla County EOC: Not Applicable.

Yakima County EOC: Limitation: There will be no Yakima County field demonstration. All activities will be simulated.

Regional Limitation: Exercise players reserve the right to immediately re-demonstrate any weakness as identified by the evaluation team.

Sub Element 3.e - Implementation of Ingestion Pathway Decisions

Criterion 3.e.1: The Offsite Response Organization demonstrates the availability and appropriate use of adequate information regarding water, food supplies, milk, and agricultural production within the ingestion exposure pathway emergency planning zone for implementation of protective actions.

(Interim REP Program Manual; NUREG-0654, J.9, 11)

- Was this Criterion adequately demonstrated? YES _____ NO _____ N/A _____

If NO, identify all exercise issues on the following pages by addressing the elements listed on the attached **ISSUES FOR CRITERION – Narrative Summary** form.

Remember, if there is no effect or potential effect, there is no exercise issue.

- **Reminder:** Provide a complete evaluator packet to the Team Leader with a detailed written narrative, timeline of observations, and all forms and information used during the exercise. Cite outstanding performance where observed.
- The following **Intent, Extent of Play** and **Agency/County Extent of Play** information is provided for general reference only. Consult your Team Leader for how it applies to your assigned location.

Intent

This sub-element is derived from NUREG-0654, which provides that Offsite Response Organizations (OROs) should have the capability to implement protective actions, based on criteria recommended by current Food and Drug Administration guidance, for the ingestion pathway zone (IPZ), the are within an approximately 50-mile radius of the nuclear power plant. This sub-element focuses on those actions required for implementation of protective actions.

Extent of Play

Applicable Offsite Response Organizations should demonstrate the capability to secure and utilize current information on the locations of dairy farms, meat and poultry producers, fisheries, fruit growers, vegetable growers, grain producers, food processing plants and water supply intake points to implement protective actions within the ingestion pathway Emergency Planning Zone. Offsite Response Organizations should use Federal resources as identified in the Federal Radiological Emergency Response Plan, and other resources (e.g. compacts, nuclear insurers, etc), if available. Evaluation of this criterion will take into consideration the level of Federal and other resources participating in the exercise.

All activities must be based on the Offsite Response Organization’s plans and procedures and be completed as they would be in an actual emergency, unless noted above or otherwise indicated in the extent of play agreement.

WA State EOC: No limitations.

DOH:

- **Limitations:**

- DOH MUDAC staff will coordinate with the WSDA representative for complete information on locations of dairies, farms, processors, growers and any other agricultural significance.
- DOH MUDAC staff may coordinate with the FRMAC CMHT on locations and recommendations, however communication with the FRMAC CMHT will not be a part of the evaluated process.

WSDA: The WSDA EOC will provide a contact list for dairies and food processors within the Food Control Area and will provide a phone message script to be delivered by phone team operators to members of that list. No actual phone calls will be made.

Benton County EOC: The County's involvement is limited to providing advice and consent to State Decision Makers. All the information called for, except for public water supplies, is a WSDA function

Franklin County EOC: SCENARIO DEPENDENT. Any distribution of information from the EOC and JIC will be simulated. If developed, the Agricultural Advisory will be sent to the JIC and not released to the public.

Walla Walla County EOC: No Limitations.

Yakima County EOC: Limitation: Will only provide local advice and considerations to Washington Department of Agricultural decision makers.

Regional Limitation: Exercise players reserve the right to immediately re-demonstrate any weakness as identified by the evaluation team.

Sub Element 3.e - Implementation of Ingestion Pathway Decisions

Criterion 3.e.2: Appropriate measures, strategies, and pre-printed instructional material are developed for implementing protective action decisions for contaminated water, food products, milk, and agricultural production. (Interim REP Program Manual; NUREG-0654, E.5, 7, J.9, 11)

- Was this Criterion adequately demonstrated? YES _____ NO _____ N/A _____

If **NO**, identify all exercise issues on the following pages by addressing the elements listed on the attached **ISSUES FOR CRITERION – Narrative Summary** form.

Remember, if there is no effect or potential effect, there is no exercise issue.

- **Reminder:** Provide a complete evaluator packet to the Team Leader with a detailed written narrative, timeline of observations, and all forms and information used during the exercise. Cite outstanding performance where observed.
- The following **Intent, Extent of Play** and **Agency/County Extent of Play** information is provided for general reference only. Consult your Team Leader for how it applies to your assigned location.

Extent of Play

Development of measures and strategies for implementation of ingestion pathway zone protective actions should be demonstrated by formulation of protective action information for the general public and food producers and processors. This includes the capability for the rapid reproduction and distribution of appropriate reproduction-ready information and instructions to pre-determined individuals and businesses. Offsite Response Organizations should demonstrate the capability to control, restrict or prevent distribution of contaminated food by commercial sectors. Exercise play should include demonstration of communications and coordination between organizations to implement protective actions. However, actual field play of implementation activities may be simulated. For example, communications and coordination with agencies responsible for enforcing food controls within the Ingestion Pathway Zone should be demonstrated, but actual communications with food producers and processors may be simulated.

All activities must be based on the Offsite Response Organization's plans and procedures and be completed as they would be in an actual emergency, unless noted above or otherwise indicated in the extent of play agreement.

DOH: No water sources will be impacted by this scenario.

WSDA:

- The WSDA County Liaison will make an Agricultural Advisory recommendation to the affected counties after plume release.

- The WSDA Operations Liaison will embargo the Food Control Area.
- **Limitation:** The WSDA EOC will provide a contact list for transportation companies that operate within the 50 mile EPZ. This contact list, including barge lines, railroads and trucking firms, would be used to determine if uncovered agricultural products passed through the ingestion plume and may have been contaminated. A contact message will be developed for these firms, but actual contact will not be made.
- WSDA will demonstrate one Food Control Point with Franklin County on day two of the exercise. This Food Control Point will be demonstrated at a pre-determined location and out of time sequence with the exercise, to avoid running late at night. Contact procedures will be demonstrated by interview and no public traffic will be stopped for this exercise.
- The WSDA Field Office Coordinator will provide a 24 hour staffing roster for the designated Food Control Points

Benton County EOC: There will be no Benton County field demonstration of this issue

Franklin County EOC: SCENARIO DEPENDENT. Materials for distribution will be simulated and available for review at the Franklin County EOC

Walla Walla County EOC: Demonstrated through interview with exercise participants.

Yakima County EOC:

- Printed material will be available viewing at the Operational Area EOC.
- ***Limitation:*** There will be no county field demonstration of this issue. Distribution of pre-printed materials will be simulated.

Regional Limitation: Exercise players reserve the right to immediately re-demonstrate any weakness as identified by the evaluation team.

Sub Element 3.f - Implementation of Relocation, Re-entry and Return Decisions

Criterion 3.f.1: Decisions regarding controlled re-entry of emergency workers and relocation and return of the public are coordinated with appropriate organizations and implemented.

(Interim REP Program Manual; NUREG-0654, M.1, 3.)

- Was this Criterion adequately demonstrated? YES _____ NO _____ N/A _____

If **NO**, identify all exercise issues on the following pages by addressing the elements listed on the attached **ISSUES FOR CRITERION – Narrative Summary** form.

Remember, if there is no effect or potential effect, there is no exercise issue.

- **Reminder:** Provide a complete evaluator packet to the Team Leader with a detailed written narrative, timeline of observations, and all forms and information used during the exercise. Cite outstanding performance where observed.
- The following **Intent, Extent of Play** and **Agency/County Extent of Play** information is provided for general reference only. Consult your Team Leader for how it applies to your assigned location.

Intent

This sub-element is derived from NUREG-0654, which provides that Offsite Response Organizations (OROs) should demonstrate the capability to implement plans, procedures and decisions for relocation, reentry and return. Implementation of these decisions is essential for the protection of the public from the direct long-term exposure to deposited radioactive materials from a severe accident at a commercial nuclear power plant.

Extent of Play

Relocation: Offsite Response Organizations should demonstrate the capability to coordinate and implement decisions concerning relocation of individuals, not previously evacuated, to an area where radiological contamination will not expose the general public to doses that exceed the relocation Protective Action Guides. Offsite Response Organizations should also demonstrate the capability to provide for short-term or long-term relocation of evacuees who lived in areas that have residual radiation levels above the Protective Action Guides.

Areas of consideration should include the capability to communicate with Offsite Response Organizations regarding timing of actions, notification of the population of the procedures for relocation, and the notification of, and advice for, evacuated individuals who will be converted to relocation status in situations where they will not be able to return to their homes due to high levels of contamination. Offsite Response Organizations should also

demonstrate the capability to communicate instructions to the public regarding relocation decisions.

Re-entry: Offsite Response Organizations should demonstrate the capability to control re-entry and exit of individuals who need to temporarily re-enter the restricted area, to protect them from unnecessary radiation exposure and for exit of vehicles and other equipment to control the spread of contamination outside the restricted area. Monitoring and decontamination facilities will be established as appropriate.

Examples of control procedure subjects are: (1) the assignment of, or checking for, direct-reading and non-direct-reading dosimetry for emergency workers; (2) questions regarding the individuals' objectives and locations expected to be visited and associated timeframes; (3) maps and plots of radiation exposure rates; (4) advice on areas to avoid and procedures for exit, including monitoring of individuals, vehicles and equipment, decision criteria regarding contamination, proper disposition of emergency worker dosimetry and maintenance of emergency worker radiation exposure records.

Return: Offsite Response Organizations should demonstrate the capability to implement policies concerning return of members of the public to areas that were evacuated during the plume phase. Offsite Response Organizations should demonstrate the capability to identify and prioritize services and facilities that require restoration within a few days, and to identify the procedures and resources for their restoration. Examples of these services and facilities are medical and social services, utilities, roads and schools and intermediate term housing for relocated persons.

Communications among Offsite Response Organizations for relocation, re-entry and return may be simulated; however all simulated or actual contacts should be documented. These discussions may be accomplished in a group setting.

Offsite Response Organizations should use Federal resources as identified in the Federal Radiological Emergency Response Plan, and other resources (e.g. compacts, nuclear insurers, etc), if available. Evaluation of this criterion will take into consideration the level of Federal and other resources participating in the exercise.

All activities must be based on the Offsite Response Organization's plans and procedures and be completed as they would be in an actual emergency, unless noted above or otherwise indicated in the extent of play agreement.

WA State EOC: Revised relocation and revised food control decision packages will not be demonstrated.

DOH:

- **Limitations:**
 - DOH MUDAC staff will demonstrate one relocation area and one revised relocation area.
 - DOH MUDAC staff will generate one return package

Benton County EOC: There will be no Benton County field demonstration of this issue

Franklin County EOC: SCENARIO DEPENDENT. All field activities on the part of the Franklin County Emergency Response Organization will be simulated.

Walla Walla County EOC: Not Applicable.

Regional Limitation: Exercise players reserve the right to immediately re-demonstrate any weakness as identified by the evaluation team.

4. FIELD MEASUREMENT AND ANALYSIS

Sub Element 4.a - Plume Phase Field Measurements and Analysis

Criterion 4.a.1: The field teams are equipped to perform field measurements of direct radiation exposure (cloud and ground shine) and to sample airborne radioiodine and particulates.

(Interim REP Program Manual; NUREG-0654, H.10; I.7, 8, 9)

- Was this Criterion adequately demonstrated? YES _____ NO _____ N/A _____

If **NO**, identify all exercise issues on the following pages by addressing the elements listed on the attached **ISSUES FOR CRITERION – Narrative Summary** form.

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- **Reminder:** Provide a complete evaluator packet to the Team Leader with a detailed written narrative, timeline of observations, and all forms and information used during the exercise. Cite outstanding performance where observed.
- The following **Intent, Extent of Play** and **Agency/County Extent of Play** information is provided for general reference only. Consult your Team Leader for how it applies to your assigned location.

Intent

This sub-element is derived from NUREG-0654, which provides that Offsite Response Organizations (OROs) have the capability to deploy field teams with the equipment, methods and expertise necessary to determine the location of airborne radiation and particulate deposition on the ground from an airborne plume. In addition, NUREG-0654 indicates that OROs should have the capability to use field teams within the plume emergency planning zone to detect airborne radioiodine in the presence of noble gases and to detect radioactive particulate material in the airborne plume. In the event of an accident at a nuclear power plant, the possible release of radioactive material may pose a risk to the nearby population and environment. Although accident assessment methods are available to project the extent and magnitude of a release, these methods are subject to large uncertainties. During an accident, it is important to collect field radiological data in order to help characterize any radiological release. Adequate equipment and procedures are essential to such field measurement efforts.

Extent of Play

Field teams should be equipped with all instrumentation and supplies necessary to accomplish their mission. This should include instruments capable of measuring gamma exposure rates and detecting the presence of beta radiation. These instruments should be capable of measuring a range of activity and exposure, including radiological

protection/exposure control of team members and detection of activity on the air sample collection media, consistent with the intended use of the instrument and the Offsite Response Organization's plans and procedures. An appropriate radioactive check source should be used to verify proper operational response for each low range radiation measurement instrument (less than 1 R/hr) and for high range instruments when available. If a source is not available for a high range instrument, a procedure should exist to operationally test the instrument before entering an area where only a high range instrument can make useful readings.

All activities must be based on the Offsite Response Organization's plans and procedures and be completed as they would be in an actual emergency, unless noted above or otherwise indicated in the extent of play agreement.

DOH:

- ***Limitations:***
 - Day one field teams will checkout kits pertaining to Plume phase activities only.
 - Day two field teams will check out kits/equipment pertaining to ingestion phase activities.
 - Field Teams will be able to re-demonstrate any potential issues that do not affect the scenario or participation for other centers immediately.
 - All field team equipment will be checked prior to deployment.
 - DOH will follow the proper protocol for requesting federal assets; however DOE will not role out field teams as requested. The activation of federal assets will not be evaluated or have any impact on the evaluation process. Radiological Assistance Program (RAP) teams may activate depending on the scenario. The RAP teams may be directed by the DOE field team coordinator or the Washington State Field team coordinator.
 - Health Physicist support to the counties will be simulated.

Regional Limitation: Exercise players reserve the right to immediately re-demonstrate any weakness as identified by the evaluation team.

Criterion 4.a.2: Field teams are managed to obtain sufficient information to help characterize the release and to control radiation exposure.

(Interim REP Program Manual; NUREG-0654, H.12; I.8, 11; J.10.a)

- Was this Criterion adequately demonstrated? YES_____ NO_____ N/A_____

If NO, identify all exercise issues on the following pages by addressing the elements listed on the attached **ISSUES FOR CRITERION – Narrative Summary** form.

Remember, if there is no effect or potential effect, there is no exercise issue.

- **Reminder:** Provide a complete evaluator packet to the Team Leader with a detailed written narrative, timeline of observations, and all forms and information used during the exercise. Cite outstanding performance where observed.
- The following **Intent, Extent of Play** and **Agency/County Extent of Play** information is provided for general reference only. Consult your Team Leader for how it applies to your assigned location.

Extent of Play

Responsible Offsite Response Organizations should demonstrate the capability to brief teams on predicted plume location and direction, travel speed, and exposure control procedures before deployment.

Field measurements are needed to help characterize the release and to support the adequacy of implemented protective actions or to be a factor in modifying protective actions. Teams should be directed to take measurements in such locations, at such times to provide information sufficient to characterize the plume and impacts.

If the responsibility to obtain peak measurements in the plume has been accepted by licensee field monitoring teams, with concurrence from Offsite Response Organizations, there is no requirement for these measurements to be repeated by State and local monitoring teams. If the licensee teams do not obtain peak measurements in the plume, it is the Offsite Response Organization's decision as to whether peak measurements are necessary to sufficiently characterize the plume. The sharing and coordination of plume measurement information among all field teams (licensee, Federal, and Offsite Response Organization) is essential. Coordination concerning transfer of samples, including a chain-of-custody form, to a radiological laboratory should be demonstrated.

Offsite Response Organizations should use Federal resources as identified in the Federal Radiological Emergency Response Plan, and other resources (for example, compacts, utility, etc.), if available. Evaluation of this criterion will take into consideration the level of Federal and other resources participating in the exercise.

All activities must be based on the Offsite Response Organization's plans and procedures and be completed as they would be in an actual emergency, unless noted above or otherwise indicated in the extent of play-agreement.

DOH: No Limitations

Regional Limitation: Exercise players reserve the right to immediately re-demonstrate any weakness as identified by the evaluation team.

**Criterion 4.a.3: Ambient radiation measurements are made and recorded at appropriate locations, and radioiodine and particulate samples are collected. Teams will move to an appropriate low background location to determine whether any significant (as specified in the plan and/or procedures) amount of radioactivity has been collected on the sampling media.
(Interim REP Program Manual; NUREG-0654,I. 9)**

- Was this Criterion adequately demonstrated? YES _____ NO _____ N/A _____

If **NO**, identify all exercise issues on the following pages by addressing the elements listed on the attached **ISSUES FOR CRITERION – Narrative Summary** form.
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- **Reminder:** Provide a complete evaluator packet to the Team Leader with a detailed written narrative, timeline of observations, and all forms and information used during the exercise. Cite outstanding performance where observed.
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Extent of Play

Field teams should demonstrate the capability to report measurements and field data pertaining to the measurement of airborne radioiodine and particulates and ambient radiation to the field team coordinator, dose assessment, or other appropriate authority. If samples have radioactivity significantly above background, the appropriate authority should consider the need for expedited laboratory analyses of these samples. Offsite Response Organizations should share data in a timely manner with all appropriate Offsite Response Organizations. All methodology, including contamination control, instrumentation, preparation of samples, and a chain of custody form for transfer to a laboratory, will be in accordance with the Offsite Response Organization’s plan and/or procedures.

Offsite Response Organizations should use Federal resources as identified in the Federal Radiological Emergency Response Plan, and other resources (for example, compacts, utility, etc.), if available. Evaluation of this criterion will take into consideration the level of both Federal and other resources participating in the exercise.

All activities must be based on the Offsite Response Organization’s plans and procedures and be completed as they would be in an actual emergency, unless noted above or otherwise indicated in the extent of play agreement.

DOH:

- **Limitations:**

- Plume phase (Day one) field teams will each take 2 air samples. One may be a back ground sample.
- Silver Zeolite cartridges will be simulated
- Charcoal cartridges will be used.
- Demonstration of sample transfer to the WSP will take place via an interview process.
- All field team captains may be interviewed regarding the process for transferring samples from field teams to the Laboratory.
- No laboratory support will be demonstrated.
- No Washington State Patrol will be dispatched for sample transfer.
- Field Teams will be able to re-demonstrate any potential issues that do not affect the scenario or participation for other centers immediately. All field team equipment will be checked prior to deployment.
- DOH will follow the proper protocol for requesting federal assets; however DOE will not role out field teams as requested. The activation of federal assets will not be evaluated or have any impact on the evaluation process. Radiological Assistance Program (RAP) teams may activate depending on the scenario. The RAP teams may be directed by the DOE field team coordinator or the Washington State Field team coordinator.
- Benton County's procedure calls for requesting a Health Physicist to report to the Benton County EOC in stand by mode for dispatch to the Emergency Worker/Assisted Center (EW/AC). This dispatch request will be simulated. No actual person will be dispatched to either county for support at the EW/ACs.

Regional Limitation: Exercise players reserve the right to immediately re-demonstrate any weakness as identified by the evaluation team.

Sub Element 4.b - Post Plume Phase Field Measurements and Sampling

Criterion 4.b.1: The field teams demonstrate the capability to make appropriate measurements and to collect appropriate samples (e.g., food crops, milk, water, vegetation, and soil) to support adequate assessments and protective action decision-making.

(Interim REP Program Manual; NUREG-0654, I.8., J.11.)

- Was this Criterion adequately demonstrated? YES _____ NO _____ N/A _____

If NO, identify all exercise issues on the following pages by addressing the elements listed on the attached **ISSUES FOR CRITERION – Narrative Summary** form.

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- **Reminder:** Provide a complete evaluator packet to the Team Leader with a detailed written narrative, timeline of observations, and all forms and information used during the exercise. Cite outstanding performance where observed.
- The following **Intent, Extent of Play** and **Agency/County Extent of Play** information is provided for general reference only. Consult your Team Leader for how it applies to your assigned location.

Intent

This sub-element is derived from NUREG-0654, which provides that Offsite Response Organizations (OROs) should have the capability to assess the actual or potential magnitude and locations of radiological hazards in the IPS and for relocation, reentry and return measures. This sub-element focuses on the collection of environmental samples for laboratory analyses that are essential for decisions on protection of the public from contaminated food and water and direct radiation from deposited materials.

Extent of Play

The Offsite Response Organization's field teams should demonstrate the capability to take measurements and samples, at such times and locations as directed, to enable an adequate assessment of the ingestion pathway and to support re-entry, relocation, and return decisions. When resources are available, the use of aerial surveys and in-situ gamma measurement is appropriate. All methodology, including contamination control, instrumentation, preparation of samples, and chain of custody form for transfer to a laboratory, will be in accordance with the Offsite Response Organization's plan and/or procedures.

Ingestion pathway samples should be secured from agricultural products and water. Samples in support of relocation and return should be secured from soil, vegetation, and other surfaces in areas that received radioactive ground deposition.

Offsite Response Organizations should use Federal resources as identified in the Federal Radiological Emergency Response Plan, and other resources (e.g. compacts, nuclear insurers, etc), if available. Evaluation of this criterion will take into consideration the level of Federal and other resources participating in the exercise.

All activities must be based on the Offsite Response Organization's plans and procedures and be completed as they would be in an actual emergency, unless noted above or otherwise indicated in the extent of play agreement.

DOH:

- ***Limitations:***
 - Transporting and transferring of samples will not be demonstrated for day two.
 - Each day two field team will collect one soil sample and one food crop sample at 2 different locations. The food crop may not necessarily be a direct human consumed food source.
 - All sample locations will be pre identified and assigned. The lead controller will provide sample locations to the field teams on day two.
 - Each day two field team may collect one water sample.
 - Day two field team operations may not necessarily correlate with MUDAC and State EOC operations.

WSDA: WSDA will demonstrate radiological milk sampling procedures by taking one milk sample on day two of the exercise. This milk sample will be demonstrated at a pre-determined location and out of time sequence with the exercise

Regional Limitation: Exercise players reserve the right to immediately re-demonstrate any weakness as identified by the evaluation team.

Sub Element 4.c - Laboratory Operations

Criterion 4.c.1: The laboratory is capable of performing required radiological analyses to support protective action decisions.
(Interim REP Program Manual; NUREG-0654, C.3; J.11)

- Was this Criterion adequately demonstrated? YES _____ NO _____ N/A _____

If **NO**, identify all exercise issues on the following pages by addressing the elements listed on the attached **ISSUES FOR CRITERION – Narrative Summary** form.

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- **Reminder:** Provide a complete evaluator packet to the Team Leader with a detailed written narrative, timeline of observations, and all forms and information used during the exercise. Cite outstanding performance where observed.
- The following **Intent, Extent of Play** and **Agency/County Extent of Play** information is provided for general reference only. Consult your Team Leader for how it applies to your assigned location.

Intent

This sub-element is derived from NUREG-0654, which provides that Offsite Response Organizations (OROs) should have the capability to perform laboratory analyses of radioactivity in air, liquid and environmental samples to support protective action decision-making.

Extent of Play

The laboratory staff should demonstrate the capability to follow appropriate procedures for receiving samples, including logging of information, preventing contamination of the laboratory, preventing buildup of background radiation due to stored samples, preventing cross contamination of samples, preserving samples that may spoil (for example, milk), and keeping track of sample identity. In addition, the laboratory staff should demonstrate the capability to prepare samples for conducting measurements.

The laboratory should be appropriately equipped to provide analyses of media, as requested, on a timely basis, of sufficient quality and sensitivity to support assessments and decisions as anticipated by the Offsite Response Organization's plans and procedures. The laboratory (laboratories) instrument calibrations should be traceable to standards provided by the National Institute of Standards and Technology. Laboratory methods used to analyze typical radionuclides released in a reactor incident should be as described in the plans and procedures. New or revised methods may be used to analyze atypical radionuclide releases (for example, transuranics or as a result of a terrorist event)

or if warranted by circumstances of the event. Analysis may require resources beyond those of the Offsite Response Organization.

The laboratory staff should be qualified in radioanalytical techniques and contamination control procedures.

Offsite Response Organizations should use Federal resources as identified in the Federal Radiological Emergency Response Plan, and other resources (for example, compacts, utility, nuclear insurers, etc.), if available. Evaluation of this criterion will take into consideration the level of Federal and other resources participating in the exercise.

All activities must be based on the Offsite Response Organization's plans and procedures and be completed as they would be in an actual emergency, unless noted above or otherwise indicated in the extent of play agreement.

State Lab: Will be demonstrated out of sequence in June 2011.

Regional Limitation: Exercise players reserve the right to immediately re-demonstrate any weakness as identified by the evaluation team.

5. EMERGENCY NOTIFICATION AND PUBLIC INFORMATION

Sub Element 5.a - Activation of the Prompt Alert and Notification System

Criterion 5.a.1: Activities associated with primary alerting and notification of the public are completed in a timely manner following the initial decision by authorized offsite emergency officials to notify the public of an emergency situation. The initial instructional message to the public must include as a minimum the elements required by current Federal Emergency Management Agency Radiological Emergency Preparedness guidance.

(10 CFR Part 50, Appendix E.IV.D, Interim REP Program Manual; and NUREG-0654, E.5, 6, 7)

- Was this Criterion adequately demonstrated? YES _____ NO _____ N/A _____

If **NO**, identify all exercise issues on the following pages by addressing the elements listed on the attached **ISSUES FOR CRITERION – Narrative Summary** form.

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- **Reminder:** Provide a complete evaluator packet to the Team Leader with a detailed written narrative, timeline of observations, and all forms and information used during the exercise. Cite outstanding performance where observed.
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Intent

This sub-element is derived from NUREG-0654, which provides that Offsite Response Organizations (OROs) should have the capability to provide prompt instructions to the public within the plume pathway EPZ. Specific provisions addressed in this sub-element are derived from the Nuclear Regulatory Commission (NRC) regulations (10 CFR Part 50, Appendix E.IV.D), and FEMA-REP-10, “Guide for the Evaluation of Alert and Notification Systems for Nuclear Power Plants”)

Extent of Play

Responsible Offsite Response Organizations should demonstrate the capability to sequentially provide an alert signal followed by an initial instructional message to populated areas (permanent resident and transient) throughout the 10-mile plume pathway Emergency Planning Zone. Following the decision to activate the alert and notification system, in accordance with the Offsite Response Organization’s plan and/or procedures, completion of system activation should be accomplished in a timely manner (will not be subject to specific time requirements) for primary alerting/notification. The

initial message should include the elements required by current Federal Emergency Management Agency Radiological Emergency Preparedness guidance.

Offsite Response Organizations with route alerting as the primary method of alerting and notifying the public should demonstrate the capability to accomplish the primary route alerting, following the decision to activate the alert and notification system, in a timely manner (will not be subject to specific time requirements) in accordance with the Offsite Response Organization's plan and/or procedures. At least one route needs to be demonstrated and evaluated. The selected route(s) should vary from exercise to exercise. However, the most difficult route should be demonstrated at least once every six years. All alert and notification activities along the route should be simulated (that is, the message that would actually be used is read for the evaluator, but not actually broadcast) as agreed upon in the extent of play. Actual testing of the mobile public address system will be conducted at an agreed upon location. The initial message should include the elements required by current Federal Emergency Management Agency Radiological Emergency Preparedness guidance.

For exercise purposes, timely is defined as "the responsible Offsite Response Organization personnel or representatives demonstrate actions to disseminate the appropriate information or instructions with a sense of urgency and without undue delay." If message dissemination is to be identified as not having been accomplished in a timely manner, the evaluator(s) will document a specific delay or cause as to why a message was not considered timely.

Procedures to broadcast the message should be fully demonstrated as they would in an actual emergency up to the point of transmission. Broadcast of the message(s) or test messages *is not* required. The alert signal activation may be simulated. However, the procedures should be demonstrated up to the point of actual activation.

The capability of the primary notification system to broadcast an instructional message on a 24-hour basis should be verified during an interview with appropriate personnel from the primary notification system.

All activities for this criterion must be based on the Offsite Response Organization's plans and procedures and be completed as they would be in an actual emergency, except as noted above or otherwise indicated in the extent of play agreement.

WA State EOC:

Limitation: The EAS system will not be actually demonstrated. This will be demonstrated by interview with the State Emergency Operations Officers.

Benton County

EOC / Dispatch Center: EAS messages have been reviewed by FEMA for approval of content prior to the exercise. No sirens will be activated. No EAS message will be sent. Benton County will demonstrate, by interview, the process

by which Benton County would activate the EAS system and River Evacuation Sirens.

Franklin County

EOC / Dispatch Center:

- Franklin County / Pasco Dispatch Center does not have the ability in that facility to activate either EAS or River Evacuation Sirens. An agreement between Franklin and Benton County's would allow for the activation of EAS and/or River Evacuation Sirens to be activated during a fast breaking event by Benton County Dispatch Center.
- EAS Messages currently used by Benton and Franklin Counties have been approved by FEMA Region X.
- Sending of EAS Message and River Alerting System will be SIMULATED.
- Franklin County EOC Public Information Officer will, upon request, demonstrate process by which Franklin County would activate the EAS system and River Evacuation Sirens from the EOC.

KONA Radio: Franklin County EM or Benton County EM will provide the initial instructional message to the public. KONA Radio does not initiate the initial instructional message; KONA would provide pre-recorded supplemental information upon request from Franklin County EM or Benton County EM in accordance with established MOU.

Walla Walla County EOC: Not Applicable.

Yakima County EOC: Limitation: Both English and Spanish messages will be simulated.

Regional Limitation: Exercise players reserve the right to immediately re-demonstrate any weakness as identified by the evaluation team.

*Criterion 5.a.2: Activation of the Prompt Alert and Notification System
[RESERVED at this time]*

Criterion 5.a.3: Activities associated with Federal Emergency Management Agency approved exception areas (where applicable) are completed within 45 minutes following the initial decision by authorized offsite emergency officials to notify the public of an emergency situation. Backup alert and notification of the public is completed within 45 minutes following the detection by the Offsite Response Organization of a failure of the primary alert and notification system.
[Reserved at this time]

There are no FEMA exception areas within the planning zone.

Sub Element 5.b - Emergency Information and Instructions for the Public and the Media

Criterion 5.b.1: Offsite Response Organizations provide accurate emergency information and instructions to the public and the news media in a timely manner. (Interim REP Program Manual; NUREG-0654, E. 5, 7; G.3.a, G.4.c)

- Was this Criterion adequately demonstrated? YES _____ NO _____ N/A _____

If **NO**, identify all exercise issues on the following pages by addressing the elements listed on the attached **ISSUES FOR CRITERION – Narrative Summary** form.

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- The following **Intent, Extent of Play** and **Agency/County Extent of Play** information is provided for general reference only. Consult your Team Leader for how it applies to your assigned location.

Intent

This sub-element is derived from NUREG-0654, which provides that Offsite Response Organizations (OROs) should have the capability to disseminate to the public appropriate emergency information and instructions, including any recommended protective actions. In addition, NUREG-0654 provides that OROs should ensure that the capability exists for providing information to the media. This includes the availability of a physical location for use by the media during an emergency. NUREG-0654 also provides that a system should be available for dealing with rumors. This system will hereafter be known as the public inquire hotline.

Extent of Play

Subsequent emergency information and instructions should be provided to the public and the media in a timely manner and will not be subject to specific time requirements. For exercise purposes, timely is defined as “the responsible Offsite Response Organization personnel/representatives demonstrate actions to disseminate the appropriate information/instructions with a sense of urgency and without undue delay.” If message dissemination is identified as not having been accomplished in a timely manner, the evaluator(s) will document a specific delay or cause as to why a message was not considered timely.

The Offsite Response Organization should ensure that emergency information and instructions are consistent with protective action decisions made by appropriate officials. The emergency information should contain all necessary and applicable instructions (for

example, evacuation instructions, evacuation routes, reception center locations, what to take when evacuating, information concerning pets, shelter-in-place instructions, information concerning protective actions for schools and special populations, public inquiry telephone number, etc.) to assist the public in carrying out protective action decisions provided to them. The Offsite Response Organization should also be prepared to disclose and explain the Emergency Classification Level of the incident. At a minimum, this information must be included in media briefings and/or media releases. Offsite Response Organizations should demonstrate the capability to use language that is clear and understandable to the public within both the plume and ingestion pathway Emergency Planning Zones. This includes demonstration of the capability to use familiar landmarks and boundaries to describe protective action areas.

The emergency information should be all-inclusive by including previously identified protective action areas that are still valid, as well as new areas. The Offsite Response Organizations should demonstrate the capability to ensure that emergency information that is no longer valid is rescinded and not repeated by broadcast media. In addition, the Offsite Response Organizations should demonstrate the capability to ensure that current emergency information is repeated at pre-established intervals in accordance with the plan and/or procedures.

Offsite Response Organizations should demonstrate the capability to develop emergency information in languages other than English when required by the plan and/or procedures.

If ingestion pathway measures are exercised, Offsite Response Organizations should demonstrate that a system exists for rapid dissemination of ingestion pathway information to pre-determined individuals and businesses in accordance with the Offsite Response Organization's plan and/or procedures.

Offsite Response Organizations should demonstrate the capability to provide timely, accurate, concise and coordinated information to the news media for subsequent dissemination to the public. This would include demonstration of the capability to conduct timely and pertinent media briefings and distribute media releases as the situation warrants. The Offsite Response Organizations should demonstrate the capability to respond appropriately to inquiries from the news media. All information presented in media briefings and media releases should be consistent with protective action decisions and other emergency information provided to the public. Copies of pertinent emergency information (for example, Emergency Alert System messages and media releases) and media information kits should be available for dissemination to the media.

Offsite Response Organizations should demonstrate that an effective system is in place for dealing with calls to the public inquiry hotline. Hotline staff should demonstrate the capability to provide or obtain accurate information for callers or refer them to an appropriate information source. Information from the hotline staff, including information that corrects false or inaccurate information when trends are noted, should be included, as

appropriate, in emergency information provided to the public, media briefings, and/or media releases.

All activities for this criterion must be based on the Offsite Response Organization's plans and procedures and be completed as they would be in an actual emergency, unless noted above or otherwise indicated in the extent of play agreement.

WA State EOC: Decision packages for the revised relocation and the revised food control area will be injected by the control cell to the JIC after the PAR has been demonstrated by the MUDAC.

DOH:

- **Limitations:**
 - DOH will send one health physicist as the technical spokesperson to the JIC.
 - A Public Information Officer from DOH may be present to provide PIO support.

WSDA: WSDA will provide a PIO to act as an agricultural spokesperson and to coordinate agricultural information at the JIC.

Benton County

EOC / Dispatch Center: No Limitations

Franklin County

EOC / Dispatch Center:

- Franklin County does not provide event information to the media or the public. Franklin County / Pasco Dispatch Center personnel will refer Public and Media Inquiries or Media inquiries to the JIC.
- Copies of Additional Emergency Information message, Press Releases, Agricultural Advisory and other preprinted material will be available at the EOC for FEMA review.
- Sending of the Additional Information Message is coordinated with KONA Radio.

KONA Radio: Franklin County EM or Benton County EM will provide the initial instructional message to the public. KONA Radio does not initiate the initial instructional message; KONA would provide pre-recorded supplemental information upon request from Franklin County EM or Benton County EM in accordance with established MOU

Yakima County:

- The Yakima Valley Operational Area Emergency Operations Center will establish a bank of public concern telephones, advertise such to the electronic media, and respond to the public. A Public Information Officer will establish and maintain contact with the media. Media releases will be coordinated with

appropriate officials. Both English and Spanish will be demonstrated in media releases.

- Limitation: Distribution of exercise press releases, agricultural advisories, additional information releases, or pre-printed materials will be simulated.

Regional Limitations:

- Distribution of all public information to non exercise participants will be simulated.
- Exercise players reserve the right to immediately re-demonstrate any weakness as identified by the evaluation team.

6. SUPPORT OPERATION/FACILITIES

Sub Element 6.a - Monitoring and Decontamination of Evacuees and Emergency Workers and Registration of Evacuees:

Criterion 6.a.1: The reception center/emergency worker facility has appropriate space, adequate resources, and trained personnel to provide monitoring, decontamination, and registration of evacuees and/or emergency workers. (Interim REP Program Manual; NUREG-0654, J.10.h; J.12; K.5.a)

- Was this Criterion adequately demonstrated? YES_____ NO_____ N/A_____

If **NO**, identify all exercise issues on the following pages by addressing the elements listed on the attached **ISSUES FOR CRITERION – Narrative Summary** form.

Remember, if there is no effect or potential effect, there is no exercise issue.

- **Reminder:** Provide a complete evaluator packet to the Team Leader with a detailed written narrative, timeline of observations, and all forms and information used during the exercise. Cite outstanding performance where observed.
- The following **Intent, Extent of Play** and **Agency/County Extent of Play** information is provided for general reference only. Consult your Team Leader for how it applies to your assigned location.

Intent

This sub-element is derived from NUREG-0654, which provides that Offsite Response Organizations (OROs) have the capability to implement radiological monitoring and decontamination of evacuees and emergency workers, while minimizing contamination of the facility and registration of evacuees at the reception centers.

Extent of Play

Radiological monitoring, decontamination, and registration facilities for evacuees and emergency workers should be set up and demonstrated as they would be in an actual emergency or as indicated in the extent of play agreement. This would include adequate space for evacuees' vehicles. Expected demonstration should include 1/3 of the monitoring teams/portal monitors required to monitor 20% of the population allocated to the facility within 12 hours. Before using monitoring instrument(s), the monitor(s) should demonstrate the process of checking the instrument(s) for proper operation.

Staff responsible for the radiological monitoring of evacuees should demonstrate the capability to attain and sustain a monitoring productivity rate per hour needed to monitor the 20% emergency planning zone population planning base within about 12 hours. This monitoring productivity rate per hour is the number of evacuees that can be monitored

per hour by the total complement of monitors using an appropriate monitoring procedure. A minimum of six individuals per monitoring station should be monitored, using equipment and procedures specified in the plan and/or procedures, to allow demonstration of monitoring, decontamination, and registration capabilities. The monitoring sequences for the first six simulated evacuees per monitoring team will be timed by the evaluators in order to determine whether the twelve-hour requirement can be met. Monitoring of emergency workers does not have to meet the twelve-hour requirement. However, appropriate monitoring procedures should be demonstrated for a minimum of two emergency workers.

Decontamination of evacuees/emergency workers may be simulated and conducted by interview. The availability of provisions for separately showering should be demonstrated or explained. The staff should demonstrate provisions for limiting the spread of contamination. Provisions could include floor coverings, signs and appropriate means (for example, partitions, roped-off areas) to separate clean from potentially contaminated areas. Provisions should also exist to separate contaminated and uncontaminated individuals, provide changes of clothing for individuals whose clothing is contaminated, and store contaminated clothing and personal belongings to prevent further contamination of evacuees or facilities. In addition, for any individual found to be contaminated, procedures should be discussed concerning the handling of potential contamination of vehicles and personal belongings.

Monitoring personnel should explain the use of action levels for determining the need for decontamination. They should also explain the procedures for referring evacuees who cannot be adequately decontaminated for assessment and follow up in accordance with the Offsite Response Organization's plans and procedures. Contamination of the individual will be determined by controller inject and not simulated with any low-level radiation source.

The capability to register individuals upon completion of the monitoring and decontamination activities should be demonstrated. The registration activities demonstrated should include the establishment of a registration record for each individual, consisting of the individual's name, address, results of monitoring and time of decontamination, if any, or as otherwise designated in the plan. Audio recorders, camcorders or written records are all acceptable means for registration.

All activities associated with this criterion must be based on the Offsite Response Organization's plans and procedures and be completed as they would be in an actual emergency, unless otherwise indicated in the extent of play agreement.

Benton County:

Southridge High School EW/AC: Will be demonstrated out of sequence in 2009.

Kennewick General Hospital (MS-1): Will be demonstrated out of sequence in 2012.

Kadlec Medical Center (MS-1): Will be demonstrated out of sequence in 2008.

Franklin County:

Columbia Basin College EW/AC: Previously demonstrated out of sequence on August 11, 2007.

Lourdes Medical Center (MS-1): Will be demonstrated out of sequence in 2010.

Sub Element 6.b - Monitoring and Decontamination of Emergency Worker Equipment

Criterion 6.b.1: The facility/Offsite Response Organization has adequate procedures and resources for the accomplishment of monitoring and decontamination of emergency worker equipment, including vehicles. (Interim REP Program Manual; NUREG-0654, K.5.b)

- Was this Criterion adequately demonstrated? YES _____ NO _____ N/A _____

If **NO**, identify all exercise issues on the following pages by addressing the elements listed on the attached **ISSUES FOR CRITERION – Narrative Summary** form.

Remember, if there is no effect or potential effect, there is no exercise issue.

- **Reminder:** Provide a complete evaluator packet to the Team Leader with a detailed written narrative, timeline of observations, and all forms and information used during the exercise. Cite outstanding performance where observed.
- The following **Intent, Extent of Play** and **Agency/County Extent of Play** information is provided for general reference only. Consult your Team Leader for how it applies to your assigned location.

Intent

This sub-element is derived from NUREG-0654, which provides that Offsite Response Organizations (OROs) have the capability to implement radiological monitoring decontamination of emergency worker equipment, including vehicles.

Extent of Play

The monitoring staff should demonstrate the capability to monitor equipment, including vehicles, for contamination in accordance with the Offsite Response Organization's plans and procedures. Specific attention should be given to equipment, including vehicles, that was in contact with individuals found to be contaminated. The monitoring staff should demonstrate the capability to make decisions on the need for decontamination of equipment, including vehicles, based on guidance levels and procedures stated in the plan and/or procedures.

The area to be used for monitoring and decontamination should be set up as it would be in an actual emergency, with all route markings, instrumentation, record keeping and contamination control measures in place. Monitoring procedures should be demonstrated for a minimum of one vehicle. It is generally not necessary to monitor the entire surface of vehicles. However, the capability to monitor areas such as radiator grills, bumpers, wheel wells, tires, and door handles should be demonstrated. Interior surfaces of vehicles that were in contact with individuals found to be contaminated should also be checked.

Decontamination capabilities, and provisions for vehicles and equipment that cannot be decontaminated, may be simulated and conducted by interview.

All activities associated with this criterion must be based on the Offsite Response Organization's plans and procedures and be completed as they would be in an actual emergency, unless noted above or otherwise indicated in the extent of play agreement.

Benton County:

Southridge High School EW/AC: Will be demonstrated out of sequence in 2009.

Franklin County:

Columbia Basin College EW/AC: Previously demonstrated out of sequence on August 11, 2007.

Sub Element 6.c - Temporary Care of Evacuees

**Criterion 6.c.1: Managers of congregate care facilities demonstrate that the centers have resources to provide services and accommodations consistent with American Red Cross planning guidelines (Found in MASS CARE—Preparedness Operations, ARC 3031). Managers demonstrate the procedures to assure that evacuees have been monitored for contamination and have been decontaminated as appropriate prior to entering congregate care facilities.
(Interim REP Program Manual; NUREG-0654, J.10.h, J.12)**

- Was this Criterion adequately demonstrated? YES _____ NO _____ N/A _____

If **NO**, identify all exercise issues on the following pages by addressing the elements listed on the attached **ISSUES FOR CRITERION – Narrative Summary** form.

Remember, if there is no effect or potential effect, there is no exercise issue.

- **Reminder:** Provide a complete evaluator packet to the Team Leader with a detailed written narrative, timeline of observations, and all forms and information used during the exercise. Cite outstanding performance where observed.
- The following **Intent, Extent of Play** and **Agency/County Extent of Play** information is provided for general reference only. Consult your Team Leader for how it applies to your assigned location.

Intent

This sub-element is derived from NUREG-0654, which provides that Offsite Response Organizations (OROs) demonstrate the capability to establish relocation centers in host areas. The American Red Cross (ARC) normally provides congregate care in support of OROs under existing letters of agreement.

Extent of Play

Under this criterion, demonstration of congregate care centers may be conducted out of sequence with the exercise scenario. The evaluator should conduct a walk-through of the center to determine, through observation and inquiries, that the services and accommodations are consistent with ARC 3031. In this simulation, it is not necessary to set up operations as they would be in an actual emergency. Alternatively, capabilities may be demonstrated by setting up stations for various services and providing those services to simulated evacuees. Given the substantial differences between demonstration and simulation of this objective, exercise demonstration expectations should be clearly specified in the extent of play agreements.

Congregate care staff should also demonstrate the capability to ensure that evacuees have been monitored for contamination, have been decontaminated as appropriate, and have

been registered before entering the facility. This capability may be determined through an interview process.

If operations at the center are demonstrated, material that would be difficult or expensive to transport (e.g., cots, blankets, sundries, and large-scale food supplies) need not be physically available at the facility. However, availability of such items should be verified by providing the evaluator a list of sources with locations and estimates of quantities.

All activities associated with this criterion must be based on the Offsite Response Organization's plans and procedures and be completed as they would be in an actual emergency, unless noted above or otherwise indicated in the extent of play agreement.

Benton County:

Southridge High School EW/AC: Will be demonstrated out of sequence in 2009.

Franklin County:

Columbia Basin College EW/AC: Previously demonstrated out of sequence on August 11, 2007.

Sub Element 6.d - Transportation and Treatment of Contaminated Injured Individuals

Criterion 6.d.1: The facility/Offsite Response Organization has the appropriate space, adequate resources, and trained personnel to provide transport, monitoring, decontamination, and medical services to contaminated injured individuals. (Interim REP Program Manual; NUREG-0654, F.2; H.10; K.5.a, b; L.1, 4)

- Was this Criterion adequately demonstrated? YES _____ NO _____ N/A _____

If **NO**, identify all exercise issues on the following pages by addressing the elements listed on the attached **ISSUES FOR CRITERION – Narrative Summary** form.

Remember, if there is no effect or potential effect, there is no exercise issue.

- **Reminder:** Provide a complete evaluator packet to the Team Leader with a detailed written narrative, timeline of observations, and all forms and information used during the exercise. Cite outstanding performance where observed.
- The following **Intent, Extent of Play** and **Agency/County Extent of Play** information is provided for general reference only. Consult your Team Leader for how it applies to your assigned location.

Intent

This sub-element is derived from NUREG-0654, which provides that Offsite Response Organizations (OROs) should have the capability to transport contaminated injured individuals to medical facilities with the capability to provide medical services.

Extent of Play

Monitoring, decontamination, and contamination control efforts will not delay urgent medical care for the victim.

Offsite Response Organizations should demonstrate the capability to transport contaminated injured individuals to medical facilities. An ambulance should be used for the response to the victim. However, to avoid taking an ambulance out of service for an extended time, any vehicle (e.g., car, truck, or van) may be utilized to transport the victim to the medical facility. Normal communications between the ambulance/dispatcher and the receiving medical facility should be demonstrated. If a substitute vehicle is used for transport to the medical facility, this communication must occur before releasing the ambulance from the drill. This communication would include reporting radiation monitoring results, if available. Additionally, the ambulance crew should demonstrate, by interview, knowledge of where the ambulance and crew would be monitored and decontaminated, if required, or whom to contact for such information.

Monitoring of the victim may be performed before transport, while enroute or deferred to the medical facility. Before using a monitoring instrument, the monitor(s) should demonstrate the process of checking the instrument for proper operation. All monitoring activities should be completed as they would be in an actual emergency. Appropriate contamination control measures should be demonstrated before and during transport and at the receiving medical facility.

The medical facility should demonstrate the capability to set up and activate a radiological emergency area for treatment. Equipment and supplies should be available for the treatment of contaminated injured individuals.

The medical facility should demonstrate the capability to make decisions on the need for decontamination of the individual, to follow appropriate decontamination procedures, and to maintain records of all survey measurements and samples taken. All procedures for the collection and analysis of samples and the decontamination of the individual should be demonstrated or described to the evaluator.

All activities associated with this criterion must be based on the Offsite Response Organization's plans and procedures and be completed as they would be in an actual emergency, unless noted above or otherwise indicated in the extent of play agreement.

Benton County:

Kennewick FD: Will be demonstrated out of sequence in 2012.

Richland FD: Will be demonstrated out of sequence in 2008.

Franklin County:

Pasco FD: Will be demonstrated out of sequence in 2010.

OREGON EXTENT-OF-PLAY AGREEMENT

Date: April 18, 2008

To: Mike Hammond, FEMA Region X

From: Shelley Carlson, Oregon Department of Energy

Subject: 2008 Oregon Exercise Participation

The following is a summary of Oregon's level of participation in the Columbia Generating Station's September 9-10, 2008 Ingestion Exercise. Oregon's exercise objectives and limitations supporting this summary are provided for FEMA review.

Oregon Emergency Operations Center (EOC) – The Oregon EOC will be fully operational for the 2008 exercise. Oregon requests two FEMA evaluators to evaluate the activities at this center.

Note:

- *During the initial notifications, Oregon requests FEMA send one of the evaluators from the Oregon EOC to Oregon Emergency Management (OEM) to evaluate the Oregon Emergency Response System (OERS).*

Emergency Operations Facility (EOF) – Oregon will send two technical representatives to the EOF for the 2008 exercise. Oregon requests FEMA evaluation on the state's dose assessment and liaison activities at this center.

Joint Information Center (JIC) – Oregon will send a Public Information Officer and an assistant to the JIC for the 2008 exercise. Oregon requests FEMA evaluation on the state's public information activities at this center.

Morrow County EOC – Morrow County will fully activate the EOC in Heppner, Oregon for the 2008 exercise. Oregon requests FEMA evaluation of the activities at this center.

Umatilla County EOC – Umatilla County will fully activate the EOC in Pendleton, Oregon for the 2008 exercise. Oregon requests FEMA evaluation of the activities at this center.

Field – The Oregon Public Health Division will send two field teams to Morrow and Umatilla County to conduct field monitoring activities for the 2008 exercise. Oregon requests two FEMA evaluators to evaluate the field team activities.

Oregon State University Radiation Center Laboratory (OSU RC) – The OSU RC Laboratory will conduct a training drill in 2008. The date of the drill is to be determined. No FEMA evaluation is necessary.

EVALUATION AREA 1: EMERGENCY OPERATIONS MANAGEMENT

Sub-element 1.a – Mobilization

Criterion 1.a.1: OROs use effective procedures to alert, notify, and mobilize emergency personnel and activate facilities in a timely manner. (NUREG-0654, A.4; D.3, 4; E.1, 2; H.4)

- Was this Criterion adequately demonstrated? YES _____ NO _____ N/A _____

If **NO**, identify all exercise issues on the following page by addressing the elements listed on the attached **ISSUES FOR CRITERION** form.

Remember, if there is no effect or potential effect, there is no exercise issue.

- Reminder: Provide a complete evaluator packet to the Team Leader with a detailed written narrative, timeline of observations, and all forms and information used during the exercise. Cite outstanding performance where observed.
- The following **INTENT, EXTENT OF PLAY**, and **Region** ___ **Extent of Play** information is provided for general reference only. Consult the extent of play agreement and your Team Leader for how it applies to your assigned location.

INTENT

This sub-element is derived from NUREG-0654, which provides that OROs should have the capability to alert, notify, and mobilize emergency personnel and to activate and staff emergency facilities.

EXTENT OF PLAY

Responsible OROs should demonstrate the capability to receive notification of an emergency situation from the licensee, verify the notification, and contact, alert, and mobilize key emergency personnel in a timely manner. Responsible OROs should demonstrate the activation of facilities for immediate use by mobilized personnel when they arrive to begin emergency operations. Activation of facilities should be completed in accordance with the plan and/or procedures. Pre-positioning of emergency personnel is appropriate, in accordance with the extent of play agreement, at those facilities located beyond a normal commuting distance from the individual's duty location or residence. Further, pre-positioning of staff for out-of-sequence demonstrations is appropriate in accordance with the extent of play agreement.

All activities must be based on the ORO's plans and procedures and completed as they would be in an actual emergency, unless noted above or otherwise indicated in the extent of play agreement.

REGION EXTENT OF PLAY:

1. The Oregon Department of Energy will fully activate the Emergency Operations Center (EOC) located at 625 Marion St NE, Salem, OR 97301.
2. The following agencies will be represented at the ODOE EOC.
 - a) Oregon Department of Energy (ODOE)
 - b) Oregon Public Health Division (Oregon Health)
 - c) Oregon Department of Agriculture (ODA)
 - d) Oregon Emergency Response System (OERS)
 - e) Oregon Department of Transportation (ODOT) (phone only on Day 1)
3. Oregon responders to the Energy Northwest EOF and JIC will be pre-positioned in Richland. Personnel will respond to locations no sooner than one hour after receiving initial emergency notifications.
4. Two Oregon Public Health Division Field Teams will be pre-positioned at the Hermiston Safety Center at 8 a.m. on day 1 of the exercise. Each field team will demonstrate taking radiation surveys and taking two air samples in sequence with day 1 exercise activities. All other sampling including the collection of two water, vegetation, and milk samples by each field team will be demonstrated out-of-sequence on day 1. Day 2 will be the food control point demonstration (out-of-sequence).
5. Morrow County will fully activate their EOC located at 325 Willow View Drive, Heppner, OR 97836.
6. Umatilla County will fully activate their EOC located at 4700 NW Pioneer Place, Pendleton, OR 97801.

EVALUATION AREA 1: EMERGENCY OPERATIONS MANAGEMENT

Sub-element 1.b – Facilities

**Criterion 1.b.1: Facilities are sufficient to support the emergency response.
(NUREG-0654, H)**

- Was this Criterion adequately demonstrated? YES _____ NO _____ N/A _____

If **NO**, identify all exercise issues on the following page by addressing the elements listed on the attached **ISSUES FOR CRITERION** form.

Remember, if there is no effect or potential effect, there is no exercise issue.

- **Reminder:** Provide a complete evaluator packet to the Team Leader with a detailed written narrative, timeline of observations, and all forms and information used during the exercise. Cite outstanding performance where observed.
- The following **INTENT, EXTENT OF PLAY, and Region** ___ **Extent of Play** information is provided for general reference only. Consult the extent of play agreement and your Team Leader for how it applies to your assigned location.

INTENT

This sub-element is derived from NUREG-0654, which provides that OROs have facilities to support the emergency response.

EXTENT OF PLAY

Facilities will only be specifically evaluated for this criterion if they are new or have substantial changes in structure or mission. Responsible OROs should demonstrate the availability of facilities that support the accomplishment of emergency operations. Some of the areas to be considered are: adequate space, furnishings, lighting, restrooms, ventilation, backup power and/or alternate facility (if required to support operations).

Facilities must be set up based on the ORO's plans and procedures and demonstrated, as they would be in an actual emergency, unless noted above or otherwise indicated in the extent of play agreement.

All activities must be based on the ORO's plans and procedures and completed as they would be in an actual emergency, unless noted above or otherwise indicated in the extent of play agreement.

REGION EXTENT OF PLAY:

1. The ODOE EOC located at 625 Marion St NE, Salem, OR 97301 underwent an expansion and will demonstrate this criterion for evaluation under the new criterion in this exercise.
2. Morrow County located at 325 Willow View Drive, Heppner, OR 97836 will demonstrate this criterion for evaluation under the new criterion in this exercise.
3. Umatilla County located at 4700 NW Pioneer Place, Pendleton, OR 97801 will demonstrate this criterion for evaluation under the new criterion in this exercise.

EVALUATION AREA 1: EMERGENCY OPERATIONS MANAGEMENT

Sub-element 1.c - Direction and Control

Criterion 1.c.1: Key personnel with leadership roles for the ORO provide direction and control to that part of the overall response effort for which they are responsible. (NUREG-0654, A.1.d; A.2.a, b)

- Was this Criterion adequately demonstrated? YES _____ NO _____ N/A _____

If NO, identify all exercise issues on the following page by addressing the elements listed on the attached **ISSUES FOR CRITERION** form.

Remember, if there is no effect or potential effect, there is no exercise issue.

- **Reminder:** Provide a complete evaluator packet to the Team Leader with a detailed written narrative, timeline of observations, and all forms and information used during the exercise. Cite outstanding performance where observed.
- The following **INTENT, EXTENT OF PLAY, and Region** ___ **Extent of Play** information is provided for general reference only. Consult the extent of play agreement and your Team Leader for how it applies to your assigned location.

INTENT

This sub-element is derived from NUREG-0654, which provides that OROs have the capability to control their overall response to an emergency.

EXTENT OF PLAY

Leadership personnel should demonstrate the ability to carry out essential functions of the response effort, for example: keeping the staff informed through periodic briefings and/or other means, coordinating with other appropriate OROs, and ensuring completion of requirements and requests.

All activities associated with direction and control must be performed based on the ORO's plans and procedures and completed, as they would be in an actual emergency, unless noted above or otherwise indicated in the extent of play agreement.

REGION EXTENT OF PLAY:

1. There are no limitations for this criterion at the ODOE EOC.
2. There are no limitations for this criterion at the Morrow County EOC.
3. There are no limitations for this criterion at the Umatilla County EOC.

EVALUATION AREA 1: EMERGENCY OPERATIONS MANAGEMENT

Sub-element 1.d – Communications Equipment

Criterion 1.d.1: At least two communication systems are available, at least one operates properly, and communication links are established and maintained with appropriate locations. Communications capabilities are managed in support of emergency operations. (NUREG-0654, F.1, 2)

- Was this Criterion adequately demonstrated? **YES** _____ **NO** _____ **N/A** _____

If NO, identify all exercise issues on the following page by addressing the elements listed on the attached **ISSUES FOR CRITERION** form.

Remember, if there is no effect or potential effect, there is no exercise issue.

- **Reminder:** Provide a complete evaluator packet to the Team Leader with a detailed written narrative, timeline of observations, and all forms and information used during the exercise. Cite outstanding performance where observed.
- The following **INTENT, EXTENT OF PLAY, and Region** ___ **Extent of Play** information. Consult the extent of play agreement and your Team Leader for how it applies to your assigned location.

INTENT

This sub-element is derived from NUREG-0654, which provides that OROs should establish reliable primary and backup communication systems to ensure communications with key emergency personnel at locations such as the following: appropriate contiguous governments within the emergency planning zone (EPZ), Federal emergency response organizations, the licensee and its facilities, emergency operations centers (EOC), and field teams.

EXTENT OF PLAY

ORO will demonstrate that a primary and at least one backup system are fully functional at the beginning of an exercise. If a communications system or systems are not functional, but exercise performance is not affected, no exercise issue will be assessed. Communications equipment and procedures for facilities and field units should be used as needed for the transmission and receipt of exercise messages. All facilities and field teams should have the capability to access at least one communication system that is independent of the commercial telephone system. Responsible OROs should demonstrate the capability to manage the communication systems and ensure that all message traffic is handled without delays that might disrupt the conduct of emergency operations. OROs should ensure that a coordinated communication link for fixed and mobile medical support facilities exist.

The specific communications capabilities of OROs should be commensurate with that specified in the response plan and/or procedures. Exercise scenarios could require the failure of a communications system and the use of an alternate system, as negotiated in the extent of play agreement.

All activities associated with the management of communications capabilities must be demonstrated based on the ORO's plans and procedures and completed as they would be in an actual emergency, unless noted above or otherwise indicated in the extent of play agreement.

REGION EXTENT OF PLAY:

1. The ODOE EOC will demonstrate one primary communication system and one backup communication system for evaluation. This includes, but is not limited to commercial phone lines, dedicated phone lines, email, satellite phone, cell phone, WEB EOC, or facsimile.
2. The Morrow County EOC will demonstrate one primary communication system and one backup communication system for evaluation. This includes, but is not limited to commercial phone lines, dedicated phone lines, email, satellite phone, cell phone, WEB EOC, or facsimile.
3. The Umatilla County EOC will demonstrate one primary communication system and one backup communication system for evaluation. This includes, but is not limited to commercial phone lines, dedicated phone lines, email, satellite phone, cell phone, WEB EOC, or facsimile.
4. The Field Team(s) will demonstrate one primary communication system and one backup communication system for evaluation. This includes, but is not limited to commercial phone lines, dedicated phone lines, email, satellite phone, cell phone, WEB EOC, or facsimile.
5. The Food Control Point will demonstrate one primary communication system and one backup communication system for evaluation. This includes, but is not limited to commercial phone lines, dedicated phone lines, email, satellite phone, cell phone, WEB EOC, or facsimile.

Note: Issue No: 69-06-1.d.1-P-03

Condition: Oregon Public Health Division Procedures Plan, Tab G, page 3: Communications Equipment lists “2 standard cell phones” as part of the communications equipage for Oregon State Field Measurement Teams. Procedures Plan Tabs A, B and H all instruct field teams that cellular telephone communication are a primary method of communication. However, there is no provision for a mobile cell phone charger (i.e. none listed under Communications Equipment), and none is provided in the “go” kits.

Oregon Public Health Division will revise their plan to address the planning issue and demonstrate this in the September 9-10, 2008 Ingestion Exercise.

EVALUATION AREA 1: EMERGENCY OPERATIONS MANAGEMENT

Sub-element 1.e – Equipment and Supplies to Support Operations

Criterion 1.e.1: Equipment, maps, displays, dosimetry, potassium iodide (KI), and other supplies are sufficient to support emergency operations. (NUREG-0654, H, J.10.a, b, e, f, j, k; J.11; K.3.a)

- Was this Criterion adequately demonstrated? YES _____ NO _____ N/A _____

If **NO**, identify all exercise issues on the following page by addressing the elements listed on the attached **ISSUES FOR CRITERION** form.

Remember, if there is no effect or potential effect, there is no exercise issue.

- **Reminder:** Provide a complete evaluator packet to the Team Leader with a detailed written narrative, timeline of observations, and all forms and information used during the exercise. Cite outstanding performance where observed.
- The following **INTENT, EXTENT OF PLAY**, and Region ___ Extent of Play information is provided. Consult extent of play agreement and your Team Leader for how it applies to your assigned location.

INTENT

This sub-element is derived from NUREG-0654, which provides that OROs have emergency equipment and supplies adequate to support the emergency response.

EXTENT OF PLAY

Equipment within the facility(ies) should be sufficient and consistent with the role assigned to that facility in the ORO's plans and/or procedures in support of emergency operations. Use of maps and displays is encouraged.

All instruments should be inspected, inventoried, and operationally checked before each use. Instruments should be calibrated in accordance with the manufacturer's recommendations. Unmodified CDV-700 series instruments and other instruments without a manufacturer's recommendation should be calibrated annually. Modified CDV-700 instruments should be calibrated in accordance with the recommendation of the modification manufacturer. A label indicating such calibration should be on each instrument or calibrated frequency can be verified by other means. Additionally, instruments being used to measure activity should have a range of readings sticker affixed to the side of the instrument. The above considerations should be included in 4.a.1 for field team equipment; 4.c.1 for radiological laboratory equipment (does not apply to analytical equipment; under 4.c.1; reception center and emergency worker facilities' equipment under 6.a.1; and ambulance and medical facilities' equipment under 6.d.1.

Sufficient quantities of appropriate direct-reading and permanent record dosimetry and dosimeter chargers should be available for issuance to all categories of emergency workers that could be deployed from that facility. Appropriate direct-reading dosimeters should allow individual(s) to read the administrative reporting limits and maximum exposure limits contained in the ORO's plans and procedures.

Dosimetry should be inspected for electrical leakage at least annually and replaced, if necessary. CDV-138s, due to their documented history of electrical leakage problems, should be inspected for electrical leakage at least quarterly and replaced if necessary. This leakage testing will be verified during the exercise, through documentation submitted in the Annual Letter of Certification, and/or through a staff assistance visit.

Responsible OROs should demonstrate the capability to maintain inventories of KI sufficient for use by emergency workers, as indicated on rosters; institutionalized individuals, as indicated in capacity lists for facilities; and, where stipulated by the plan and/or procedures, members of the general public (including transients) within the plume pathway EPZ.

Quantities of dosimetry and KI available and storage locations(s) will be confirmed by physical inspection at storage location(s) or through documentation of current inventory submitted during the exercise, provided in the Annual Letter of Certification submission, and/or verified during a Staff Assistance Visit. Available supplies of KI should be within the expiration date indicated on KI bottles or blister packs. As an alternative, the ORO may produce a letter from a certified private or State laboratory indicating that the KI supply remains potent, in accordance with U.S. Pharmacopoeia standards.

At locations where traffic and access control personnel are deployed, appropriate equipment (e.g., vehicles, barriers, traffic cones and signs, etc.) should be available or their availability described.

All activities must be based on the ORO's plans and procedures and completed as they would be in an actual emergency, unless noted above or otherwise indicated in the extent of play agreement.

REGION EXTENT OF PLAY:

1. There are no limitations at the ODOE EOC, Hermiston Safety Center, and the Food Control Point at ODOT's Port of Entry.

EVALUATION AREA 2: PROTECTIVE ACTION DECISION-MAKING

Sub-element 2.a – Emergency Worker Exposure Control

Criterion 2.a.1: OROs use a decision-making process, considering relevant factors and appropriate coordination, to ensure that an exposure control system, including the use of KI, is in place for emergency workers including provisions to authorize radiation exposure in excess of administrative limits or protective action guides. (NUREG-0654, K.4)

- Was this Criterion adequately demonstrated? **YES** _____ **NO** _____ **N/A** _____

If **NO**, identify all exercise issues on the following page by addressing the elements listed on the attached **ISSUES FOR CRITERION** form.

Remember, if there is no effect or potential effect, there is no exercise issue.

- **Reminder:** Provide a complete evaluator packet to the Team Leader with a detailed written narrative, timeline of observations, and all forms and information used during the exercise. Cite outstanding performance where observed.
- The following **INTENT, EXTENT OF PLAY**, and Region ___ Extent of Play information is provided. Consult extent of play agreement and your Team Leader for how it applies to your assigned location.

INTENT

This sub-element is derived from NUREG-0654, which provides that an ORO have the capability to assess and control the radiation exposure received by emergency workers and have a decision chain in place as specified in the ORO's plans and procedures to authorize emergency worker exposure limits to be exceeded for specific missions.

Radiation exposure limits for emergency workers are the recommended accumulated dose limits or exposure rates that emergency workers may be permitted to incur during an emergency. These limits include any pre-established administrative reporting limits (that take into consideration Total Effective Dose Equivalent or organ-specific limits) identified in the ORO's plans and procedures.

EXTENT OF PLAY

OROs authorized to send emergency workers into the plume exposure pathway EPZ should demonstrate a capability to meet the criterion based on their emergency plans and procedures.

Responsible OROs should demonstrate the capability to make decisions concerning the authorization of exposure levels in excess of pre-authorized levels and to the number of emergency workers receiving radiation dose above pre-authorized levels.

As appropriate, OROs should demonstrate the capability to make decisions on the distribution and administration of KI, as a protective measure, based on the ORO's plan and/or procedures or projected thyroid dose compared with the established protective action guides (PAGs) for KI administration.

All activities must be based on the ORO's plans and procedures and completed, as they would be in an actual emergency, unless noted above or otherwise indicated in the extent of play agreement.

REGION EXTENT OF PLAY:

FEMA evaluation of this criterion is limited to Oregon responders to the Energy Northwest Emergency Operations Facility and the Oregon Health Field Team(s) pre-staged at the Hermiston Safety Center to confirm that there is no plume impact in Oregon.

EVALUATION AREA 2: PROTECTIVE ACTION DECISION-MAKING

Sub-element 2.b. Radiological Assessment and Protective Action Recommendations and Decisions for the Plume Phase of the Emergency

Criterion 2.b.1: Appropriate protective action recommendations are based on available information on plant conditions, field monitoring data, and licensee and ORO dose projections, as well as knowledge of on-site and off-site environmental conditions. (NUREG-0654, I.8, 10, 11; Supplement 3)

- Was this Criterion adequately demonstrated? YES _____ NO _____ N/A _____

If **NO**, identify all exercise issues on the following page by addressing the elements listed on the attached **ISSUES FOR CRITERION** form.

Remember, if there is no effect or potential effect, there is no exercise issue.

- **Reminder:** Provide a complete evaluator packet to the Team Leader with a detailed written narrative, timeline of observations, and all forms and information used during the exercise. Cite outstanding performance where observed.
- The following **INTENT, EXTENT OF PLAY**, and Region ___ Extent of Play information is provided. Consult extent of play agreement and your Team Leader for how it applies to your assigned location.

INTENT

This sub-element is derived from NUREG-0654, which provides that OROs have the capability to use all available data to independently project integrated dose and compare the estimated dose savings with the protective action guides. OROs have the capability to choose, among a range of protective actions, those most appropriate in a given emergency situation. OROs base these choices on protective action guides (PAGs) from the ORO's plans and procedures, or EPA 400-R-92-001 and other criteria, such as, plant conditions, licensee protective action recommendations, coordination of protective action decisions with other political jurisdictions (e.g. other affected OROs), availability of appropriate in-place shelter, weather conditions, and situations that create higher than normal risk from evacuation.

EXTENT OF PLAY

During the initial stage of the emergency response, following notification of plant conditions that may warrant offsite protective actions, the ORO should demonstrate the capability to use appropriate means, described in the plan and/or procedures, to develop protective action recommendations (PARs) for decision-makers based on available information and recommendations from the licensee and field monitoring data, if available..

When the licensee provides release and meteorological data, the ORO also considers these data. The ORO should demonstrate a reliable capability to independently validate dose projections. The types of calculations to be demonstrated depend on the data available and the need for assessments to support the PARs appropriate to the scenario. In all cases, calculation of projected dose should be demonstrated. Projected doses should be related to quantities and units of the PAGs to which they will be compared. PARs should be promptly transmitted to decision-makers in a prearranged format.

Differences greater than a factor of 10 between projected doses by the licensee and the ORO should be discussed with the licensee with respect to the input data and assumptions used, the use of different models, or other possible reasons. Resolution of these differences should be incorporated into the PAR if timely and appropriate. The ORO should demonstrate the capability to use any additional data to refine projected doses and exposure rates and revise the associated PARs.

All activities must be based on the ORO's plans and procedures and completed, as they would be in an actual emergency, unless noted above or otherwise indicated in the extent of play agreement.

REGION EXTENT OF PLAY:

FEMA evaluation of this criterion is limited to Oregon responders to the Energy Northwest Emergency Operations Facility.

EVALUATION AREA 2: PROTECTIVE ACTION DECISION-MAKING

Sub-element 2.b. Radiological Assessment and Protective Action Recommendations and Decisions for the Plume Phase of the Emergency

Criterion 2.b.2: A decision-making process involving consideration of appropriate factors and necessary coordination is used to make protective action decisions (PADs) for the general public (including the recommendation for the use of KI, if ORO policy). (NUREG-0654, J.9; J.10.m)

- Was this Criterion adequately demonstrated? YES _____ NO _____ N/A _____

If **NO**, identify all exercise issues on the following page by addressing the elements listed on the attached **ISSUES FOR CRITERION** form.

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- **Reminder:** Provide a complete evaluator packet to the Team Leader with a detailed written narrative, timeline of observations, and all forms and information used during the exercise. Cite outstanding performance where observed.
- The following **INTENT, EXTENT OF PLAY**, and Region ___ Extent of Play information is provided. Consult extent of play agreement and your Team Leader for how it applies to your assigned location.

INTENT

This sub-element is derived from NUREG-0654, which indicates that OROs have the capability to use all available data to independently project integrated dose from exposure rates or other information and compare the estimated dose savings with the protective action guides. OROs have the capability to choose, among a range of protective actions, those most appropriate in a given emergency situation and base these choices on protective action guides (PAGs) from the ORO's plans and procedures, FRC Reports Numbers 5 and 7 or EPA 400-R-92-001 and other criteria, such as, plant conditions, licensee protective action recommendations, coordination of protective action decisions with other political jurisdictions (e.g. other affected OROs), availability of appropriate in-place shelter, weather conditions, and situations that create higher than normal risk from evacuation.

EXTENT OF PLAY

OROs should have the capability to make both initial and subsequent PADs. They should demonstrate the capability to make initial PADs in a timely manner appropriate to the situation, based on notification from the licensee, assessment of plant status and releases, and PARs from the utility and ORO staff.

The dose assessment personnel may provide additional PARs based on the subsequent dose projections, field monitoring data, or information on plant conditions. The decision-makers should demonstrate the capability to change protective actions as appropriate based on these projections.

If the ORO has determined that KI will be used as a protective measure for the general public under off-site plans, then the ORO should demonstrate the capability to make decisions on the distribution and administration of KI as a protective measure for the general public to supplement shelter and evacuation. This decision should be based on the ORO's plan and/or procedures or projected thyroid dose compared with the established PAG for KI administration. The KI decision-making process should involve close coordination with appropriate assessment and decision-making staff.

If more than one ORO is involved in decision-making, OROs should communicate and coordinate PADs with affected OROs. OROs should demonstrate the capability to communicate the contents of decisions to the affected jurisdictions.

All decision-making activities by ORO personnel must be performed based on the ORO's plans and procedures and completed as they would be in an actual emergency, unless noted above or otherwise indicated in the extent of play agreement.

REGION EXTENT OF PLAY:

N/A in Oregon.

EVALUATION AREA 2: PROTECTIVE ACTION DECISION-MAKING

Sub-element 2.c - Protective Action Decisions Consideration for the Protection of Special Populations

Criterion 2.c.1: Protective action decisions are made, as appropriate, for special population groups. (NUREG-0654, J.9; J.10.c, d, e, g)

- Was this Criterion adequately demonstrated? YES _____ NO _____ N/A _____

If **NO**, identify all exercise issues on the following page by addressing the elements listed on the attached **ISSUES FOR CRITERION** form.

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INTENT

This sub-element is derived from NUREG-0654, which provides that OROs should have the capability to determine protective action recommendations, including evacuation, sheltering and use of potassium iodide (KI), if applicable, for special population groups (e.g., hospitals, nursing homes, correctional facilities, schools, licensed day care centers, mobility impaired individuals, and transportation dependent individuals). Focus is on those special population groups that are (or potentially will be) affected by a radiological release from a nuclear power plant.

EXTENT OF PLAY

Usually, it is appropriate to implement evacuation in areas where doses are projected to exceed the lower end of the range of PAGs, except for situations where there is a high-risk environment or where high-risk groups (e.g., the immobile or infirm) are involved: In these cases, examples of factors that should be considered are weather conditions, shelter availability, availability of transportation assets, risk of evacuation vs. risk from the avoided dose, and precautionary school evacuations. In situations where an institutionalized population cannot be evacuated, the administration of KI should be considered by the OROs.

Applicable OROs should demonstrate the capability to alert and notify all public school systems/districts of emergency conditions that are expected to or may necessitate protective actions for students. Contact with public school systems/ districts must be actual.

In accordance with plans and/or procedures, OROs and/or officials of participating public school systems/districts should demonstrate the capability to make prompt decisions on protective actions for students. Officials should demonstrate that the decision making process for protective actions considers (e.g., either accepts automatically or gives heavy weight to) protective action recommendations made by ORO personnel, the ECL at which these recommendations are received, preplanned strategies for protective actions for that ECL, and the location of students at the time (e.g., whether the students are still at home, en route to the school, or at the school).

All decision-making activities associated with protective actions, including consideration of available resources, for special population groups must be based on the ORO's plans and procedures and completed, as they would be in an actual emergency, unless noted above or otherwise indicated in the extent of play agreement.

REGION EXTENT OF PLAY:

N/A in Oregon.

EVALUATION AREA 2: PROTECTIVE ACTION DECISION-MAKING

Sub-element 2.d. –Radiological Assessment and Decision-Making for the Ingestion Exposure Pathway

Criterion 2.d.1: Radiological consequences for the ingestion pathway are assessed and appropriate protective action decisions are made based on the ORO planning criteria. (NUREG-0654, I.8, J.11)

- Was this Criterion adequately demonstrated? YES _____ NO _____ N/A _____

If **NO**, identify all exercise issues on the following page by addressing the elements listed on the attached **ISSUES FOR CRITERION** form.

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INTENT

This sub-element is derived from NUREG-0654, which provides that OROs have the means to assess the radiological consequences for the ingestion exposure pathway, relate them to the appropriate protective action guides (PAGs), and make timely, appropriate protective action decisions to mitigate exposure from the ingestion pathway.

During an accident at a nuclear power plant, a release of radioactive material may contaminate water supplies and agricultural products in the surround areas. Any such contamination would likely occur during the plume phase of the accident, and depending on the nature of the release could impact the ingestion pathway for weeks or years.

EXTENT OF PLAY

We expect that the ORO will take precautionary actions to protect food and water supplies, or to minimize exposure to potentially contaminated water and food, in

accordance with their respective plans and procedures. Often such precautionary actions are initiated by the OROs based on criteria related to the facility's emergency classification levels (ECL). Such action may include recommendations to place milk animals on stored feed and to use protected water supplies.

The ORO should use its procedures (for example, development of a sampling plan) to assess the radiological consequences of a release on the food and water supplies. The ORO assessment should include the evaluation of the radiological analyses of representative samples of water, food, and other ingestible substances of local interest from potentially impacted areas, the characterization of the releases from the facility, and the extent of areas potentially impacted by the release. During this assessment, OROs should consider the use of agricultural and watershed data within the 50-mile EPZ. The radiological impacts on the food and water should then be compared to the appropriate ingestion PAGs contained in the ORO's plan and/or procedures. (The plan and/or procedures may contain PAGs based on specific dose commitment criteria or based on criteria as recommended by current Food and Drug Administration guidance.) Timely and appropriate recommendations should be provided to the ORO decision-makers group for implementation decisions. As time permits, the ORO may also include a comparison of taking or not taking a given action on the resultant ingestion pathway dose commitments.

The ORO should demonstrate timely decisions to minimize radiological impacts from the ingestion pathway, based on the given assessments and other information available. Any such decisions should be communicated and to the extent practical, coordinated with neighboring and local OROs.

ORO's should use Federal resources, as identified in the Federal Radiological Emergency Response Plan (FRERP), and other resources (e.g., compacts, nuclear insurers, etc), if available. Evaluation of this criterion will take into consideration the level of Federal and other resources participating.

All activities must be based on the ORO's plans and procedures and completed, as they would be in an actual emergency, unless noted above or otherwise indicated in the extent of play agreement.

REGION EXTENT OF PLAY:

1. There are no limitations for this criterion at the ODOE EOC.
2. There are no limitations for this criterion at the Morrow County EOC.
3. There are no limitations for this criterion at the Umatilla County EOC.

EVALUATION AREA 2: PROTECTIVE ACTION DECISION-MAKING

Sub-element 2.e. – Radiological Assessment and Decision-Making Concerning Relocation, Re-entry, and Return

Criterion 2.e.1: Timely relocation, re-entry, and return decisions are made and coordinated as appropriate, based on assessments of the radiological conditions and criteria in the ORO's plan and/or procedures. (NUREG-0654, A.1.b; I.10; M)

- Was this Criterion adequately demonstrated? YES _____ NO _____ N/A _____

If **NO**, identify all exercise issues on the following page by addressing the elements listed on the attached **ISSUES FOR CRITERION** form.

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INTENT

The sub-element is derived from NUREG-0654, which provides that OROs have the capability to make decisions on relocation, re-entry, and return of the general public. These decisions are essential for the protection of the public from the direct long-term exposure to deposited radioactive materials from a severe accident at a commercial nuclear power plant.

EXTENT OF PLAY

Relocation: OROs should demonstrate the capability to estimate integrated dose in contaminated areas and to compare these estimates with PAGs, apply decision criteria for relocation of those individuals in the general public who have not been evacuated but where projected doses are in excess of relocation PAGs and control access to evacuated and restricted areas. Decisions are made for relocating members of the evacuated public who lived in areas that now have residual radiation levels in excess of the PAGs. Determination of areas to be restricted should be based on factors such as the mix of radionuclides in deposited materials, calculated exposure rates vs. the PAGs and field samples of vegetation and soil analyses.

Re-entry: Decisions should be made regarding the location of control points and policies regarding access and exposure control for emergency workers and members of the general public who need to enter the evacuated area to perform specific tasks or missions.

Examples of control procedures are the assignment of or checking for, direct reading and non direct-reading dosimeters for emergency workers; questions regarding the individual's objectives and locations expected to be visited and associated time frames; availability of maps and plots of radiation exposure rates; advice on areas to avoid; and procedures for exit including: monitoring of individuals, vehicles, and equipment, decision criteria regarding decontamination; and proper disposition of emergency worker dosimeters and maintenance of emergency worker radiation exposure records.

Responsible OROs should demonstrate the capability to develop a strategy for authorized re-entry of individuals into the restricted zone, based on established decision criteria. OROs should demonstrate the capability to modify those policies for security purposes (e.g., police patrols), for maintenance of essential services (e.g., fire protection and utilities), and for other critical functions. They should demonstrate the capability to use decision-making criteria in allowing access to the restricted zone by the public for various reasons, such as to maintain property (e.g., to care for the farm animals or secure machinery for storage), or to retrieve important possessions. Coordinated policies for access and exposure control should be developed among all agencies with roles to perform in the restricted zone. OROs should demonstrate the capability to establish policies for provision of dosimetry to all individuals allowed to re-enter the restricted zone. The extent that OROs need to develop policies on re-entry will be determined by scenario events.,

Return: Decisions are to be based on environmental data and political boundaries or physical/geological features, which allow identification of the boundaries of areas to which members of the general public may return. Return is permitted to the boundary of the restricted area that is based on the relocation PAG.

Other factors that the ORO should consider are, for example: conditions that permit the cancellation of the emergency classification level and the relaxation of associated restrictive measures, basing return recommendations (i.e., permitting populations that were previously evacuated to reoccupy their homes and businesses on an unrestricted basis) on measurements of radiation from ground deposition; and the capability to identify services and facilities that require restoration within a few days and to identify the procedures and resources for their restoration. Examples of these services and facilities are: medical and social services, utilities, roads, schools, and intermediate term housing for relocated persons.

All activities must be based on the ORO's plans and procedures and completed, as they would be in an actual emergency, unless noted above or otherwise indicated in the extent of play agreement.

REGION EXTENT OF PLAY:

N/A in Oregon.

EVALUATION AREA 3: PROTECTIVE ACTION IMPLEMENTATION

Sub-element 3.a – Implementation of Emergency Worker Exposure Control

Criterion 3.a.1: The OROs issue appropriate dosimetry and procedures, and manage radiological exposure to emergency workers in accordance with the plans and procedures. Emergency workers periodically and at the end of each mission read their dosimeters and record the readings on the appropriate exposure record or chart. (NUREG-0654, K.3)

- Was this Criterion adequately demonstrated? YES _____ NO _____ N/A _____

If **NO**, identify all exercise issues on the following page by addressing the elements listed on the attached **ISSUES FOR CRITERION** form.

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- The following **INTENT, EXTENT OF PLAY**, and Region ___ Extent of Play information is provided. Consult extent of play agreement and your Team Leader for how it applies to your assigned location.

INTENT

This sub-element is derived from NUREG-0654, which provides that OROs should have the capability to provide for the following: distribution, use, collection, and processing of direct-reading dosimeters and permanent record dosimeters; the reading of direct-reading dosimetry by emergency workers at appropriate frequencies; maintaining a radiation dose record for each emergency worker; and establishing a decision chain or authorization procedure for emergency workers to incur radiation exposures in excess of protective action guides, always applying the ALARA (As Low As is Reasonably Achievable) principle as appropriate.

EXTENT OF PLAY

ORO should demonstrate the capability to provide appropriate direct-reading and permanent record dosimetry, dosimetry chargers, and instructions on the use of dosimetry to emergency workers. For evaluation purposes, appropriate direct-reading dosimetry is defined as dosimetry that allows individual(s) to read the administrative reporting limits (that are pre-established at a level low enough to consider subsequent calculation of Total Effective Dose Equivalent) and maximum exposure limits (for those emergency workers involved in life saving activities) contained in the OROs plans and procedures.

Each emergency worker should have the basic knowledge of radiation exposure limits as specified in the ORO's plan and/or procedures. Procedures to monitor and record dosimeter readings and to manage radiological exposure control should be demonstrated.

During a plume phase exercise, emergency workers should demonstrate the procedures to be followed when administrative exposure limits and turn-back values are reached. The emergency worker should report accumulated exposures during the exercise as indicated in the plans and procedures. OROs should demonstrate the actions described in the plan and/or procedures by determining whether to replace the worker, to authorize the worker to incur additional exposures or to take other actions. If scenario events do not require emergency workers to seek authorizations for additional exposure, evaluators should interview at least two emergency workers, to determine their knowledge of whom to contact in the event authorization is needed and at what exposure levels. Emergency workers may use any available resources (e.g. written procedures and/or co-workers) in providing responses.

Although it is desirable for all emergency workers to each have a direct-reading dosimeter, there may be situations where team members will be in close proximity to each other during the entire mission and adequate control of exposure can be effected for all members of the team by one dosimeter worn by the team leader. Emergency workers who are assigned to low exposure rate areas, e.g., at reception centers, counting laboratories, emergency operations centers, and communications centers, may have individual direct-reading dosimeters or they may be monitored by dosimeters strategically placed in the work area. It should be noted that, even in these situations, each team member must still have their own permanent record dosimeter.

Individuals without specific radiological response missions, such as farmers for animal care, essential utility service personnel, or other members of the public who must re-enter an evacuated area following or during the plume passage, should be limited to the lowest radiological exposure commensurate with completing their missions.

All activities must be based on the ORO's plans and procedures and completed as they would be in an actual emergency, unless noted above or otherwise indicated in the extent of play agreement.

REGION EXTENT OF PLAY:

1. FEMA evaluation of this criterion is limited to Oregon responders to the Energy Northwest Emergency Operations Facility and the Oregon Health Field Team(s) pre-staged at the Hermiston Safety Center to confirm that there is no plume impact in Oregon.

EVALUATION AREA 3: PROTECTIVE ACTION IMPLEMENTATION

Sub-element 3.b – Implementation of KI Decision

Criterion 3.b.1: KI and appropriate instructions are available should a decision to recommend use of KI be made. Appropriate record keeping of the administration of KI for emergency workers and institutionalized individuals is maintained. (NUREG-0654, E. 7; J.10.e, f)

- Was this Criterion adequately demonstrated? YES _____ NO _____ N/A _____

If **NO**, identify all exercise issues on the following page by addressing the elements listed on the attached **ISSUES FOR CRITERION** form.

Remember, if there is no effect or potential effect, there is no exercise issue.

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INTENT

This sub-element is derived from NUREG-0654, which provides that OROs should have the capability to provide radioprotective drugs for emergency workers, institutionalized individuals, and, if in the plan and/or procedures, to the general public for whom immediate evacuation may not be feasible, very difficult, or significantly delayed. While it is necessary for OROs to have the capability to provide KI to emergency workers and institutionalized individuals, the provision of KI to the general public is an ORO option, reflected in ORO's plans and procedures. Provisions should include the availability of adequate quantities, storage, and means of the distribution of radioprotective drugs.

EXTENT OF PLAY

OROs should demonstrate the capability to make KI available to emergency workers, institutionalized individuals, and, where provided for in the ORO plan and/or procedures, to members of the general public. OROs should demonstrate the capability to accomplish distribution of KI consistent with decisions made. Organizations should have the capability to develop and maintain lists of emergency workers and institutionalized individuals who have ingested KI, including documentation of the date(s) and time(s) they were instructed to ingest KI. The ingestion of KI recommended by the designated ORO health official is voluntary. For evaluation purposes, the actual ingestion of KI is not necessary. OROs should demonstrate the capability to formulate and disseminate appropriate instructions on the use of KI for those

advised to take it. If a recommendation is made for the general public to take KI, appropriate information should be provided to the public by the means of notification specified in the ORO's plan and/or procedures.

Emergency workers should demonstrate the basic knowledge of procedures for the use of KI whether or not the scenario drives the use of KI. This can be accomplished by an interview with the evaluator.

All activities must be based on the ORO's plans and procedures and completed, as they would be in an actual emergency, unless noted above or otherwise indicated in the extent of play agreement.

REGION EXTENT OF PLAY:

1. FEMA evaluation of this criterion is limited to Oregon responders to the Energy Northwest Emergency Operations Facility and the Oregon Health Field Team(s) pre-staged at the Hermiston Safety Center to confirm that there is no plume impact in Oregon.

EVALUATION AREA 3: PROTECTIVE ACTION IMPLEMENTATION

Sub-element 3.c – Implementation of Protective Actions for Special Populations

Criterion 3.c.1: Protective action decisions are implemented for special populations other than schools within areas subject to protective actions. (NUREG-0654, E.7; J.9; J.10.c, d, e, g)

- Was this Criterion adequately demonstrated? YES _____ NO _____ N/A _____

If **NO**, identify all exercise issues on the following page by addressing the elements listed on the attached **ISSUES FOR CRITERION** form.

Remember, if there is no effect or potential effect, there is no exercise issue.

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- The following **INTENT, EXTENT OF PLAY**, and Region ___ Extent of Play information is provided. Consult extent of play agreement and your Team Leader for how it applies to your assigned location.

INTENT

This sub-element is derived from NUREG-0654, which provides that OROs should have the capability to implement protective action decisions, including evacuation and/or sheltering, for all special populations. Focus is on those special populations that are (or potentially will be) affected by a radiological release from a nuclear power plant.

EXTENT OF PLAY

Applicable OROs should demonstrate the capability to alert and notify (e.g., provide protective action recommendations and emergency information and instructions) special populations (hospitals, nursing homes, correctional facilities, mobility impaired individuals, transportation dependent, etc). OROs should demonstrate the capability to provide for the needs of special populations in accordance with the ORO's plans and procedures.

Contact with special populations and reception facilities may be actual or simulated, as agreed to in the Extent of Play. Some contacts with transportation providers should be actual, as negotiated in the extent of play. All actual and simulated contacts should be logged..

All implementing activities associated with protective actions for special populations must be based on the ORO's plans and procedures and completed, as they would be in an

actual emergency, unless noted above or otherwise indicated in the extent of play agreement.

REGION EXTENT OF PLAY:

N/A in Oregon.

EVALUATION AREA 3: PROTECTIVE ACTION IMPLEMENTATION

Sub-element 3.c – Implementation of Protective Actions for Special Populations

Criterion 3.c.2: OROs/School officials decide implement protective actions for schools. (NUREG-0654, J.10.c, d, g)

- Was this Criterion adequately demonstrated? YES _____ NO _____ N/A _____

If **NO**, identify all exercise issues on the following page by addressing the elements listed on the attached **ISSUES FOR CRITERION** form.

Remember, if there is no effect or potential effect, there is no exercise issue.

- **Reminder:** Provide a complete evaluator packet to the Team Leader with a detailed written narrative, timeline of observations, and all forms and information used during the exercise. Cite outstanding performance where observed.
- The following **INTENT, EXTENT OF PLAY**, and Region ___ Extent of Play information is provided. Consult extent of play agreement and your Team Leader for how it applies to your assigned location.

INTENT

This sub-element is derived from NUREG-0654, which provides that OROs should have the capability to implement protective action decisions, including evacuation and/or sheltering, for all special populations. Focus is on those special population groups that are (or potentially will be) affected by a radiological release from a nuclear power plant.

EXTENT OF PLAY

Public school systems/districts shall demonstrate the ability implement protective action decisions for students. The demonstration shall be made as follows: At least one school in a school system or district within the EPZ, as appropriate, needs to demonstrate the implementation of protective actions. The implementation of canceling the school day, dismissing early, or sheltering should be simulated by describing to evaluators the procedures that would be followed. If evacuation is the implemented protective action, all activities to coordinate and complete the evacuation of students to reception centers, congregate care centers, or host schools may actually be demonstrated or accomplished through an interview process. If accomplished through an interview process, appropriate

school personnel including decision making officials (e.g., superintendent/principal, transportation director/bus dispatcher), and at least one bus driver (and the bus driver's escort, if applicable) should be available to demonstrate knowledge of their role(s) in the evacuation of school children. Communications capabilities between school officials and the buses, if required by the plan and/or procedures, should be verified.

Officials of the participating school(s) or school system(s) should demonstrate the capability to develop and provide timely information to OROs for use in messages to parents, the general public, and the media on the status of protective actions for schools.

All activities must be based on the ORO's plans and procedures and completed as they would be in an actual emergency, unless specified above or indicated in the extent of play agreement.

REGION EXTENT OF PLAY:

N/A in Oregon.

EVALUATION AREA 3: PROTECTIVE ACTION IMPLEMENTATION

Sub-element 3.d. – Implementation of Traffic and Access Control

Criterion 3.d.1: Appropriate traffic and access control is established. Accurate instructions are provided to traffic and access control personnel. (NUREG-0654, J.10.g, j, k)

- Was this Criterion adequately demonstrated? YES _____ NO _____ N/A _____

If **NO**, identify all exercise issues on the following page by addressing the elements listed on the attached **ISSUES FOR CRITERION** form.

Remember, if there is no effect or potential effect, there is no exercise issue.

- **Reminder:** Provide a complete evaluator packet to the Team Leader with a detailed written narrative, timeline of observations, and all forms and information used during the exercise. Cite outstanding performance where observed.
- The following **INTENT, EXTENT OF PLAY**, and Region ___ Extent of Play information is provided. Consult extent of play agreement and your Team Leader for how it applies to your assigned location.

INTENT

This sub-element is derived from NUREG-0654, which provides that OROs have the capability to implement protective action plans, including relocation and restriction of access to evacuated/sheltered areas. This sub-element focuses on selecting, establishing, and staffing of traffic and access control points and removal of impediments to the flow of evacuation traffic.

EXTENT OF PLAY

OROs should demonstrate the capability to select, establish, and staff appropriate traffic and access control points consistent with protective action decisions (for example, evacuating, sheltering, and relocation), in a timely manner. OROs should demonstrate the capability to provide instructions to traffic and access control staff on actions to take when modifications in protective action strategies necessitate changes in evacuation patterns or in the area(s) where access is controlled.

Traffic and access control staff should demonstrate accurate knowledge of their roles and responsibilities. This capability may be demonstrated by actual deployment or by interview in accordance with the extent of play agreement.

In instances where OROs lack authority necessary to control access by certain types of traffic (rail, water, and air traffic), they should demonstrate the capability to contact the State or Federal agencies with authority to control access.

All activities must be based on the ORO's plans and procedures and completed, as they would be in an actual emergency, unless specified above or indicated in the extent of play agreement.

REGION EXTENT OF PLAY:

N/A in Oregon.

EVALUATION AREA 3: PROTECTIVE ACTION IMPLEMENTATION

Sub-element 3.d. – Implementation of Traffic and Access Control

Criterion 3.d.2: Impediments to evacuation are identified and resolved. (NUREG-0654, J.10.k)

- Was this Criterion adequately demonstrated? YES _____ NO _____ N/A _____

If **NO**, identify all exercise issues on the following page by addressing the elements listed on the attached **ISSUES FOR CRITERION** form.

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- The following **INTENT, EXTENT OF PLAY**, and Region ___ Extent of Play information is provided. Consult extent of play agreement and your Team Leader for how it applies to your assigned location.

INTENT

This sub-element is derived from NUREG-0654, which provides that OROs have the capability to implement protective action plans, including relocation and restriction of access to evacuated/sheltered areas. This sub-element focuses on selecting, establishing, and staffing of traffic and access control points and removal of impediments to the flow of evacuation traffic.

EXTENT OF PLAY

ORO should demonstrate the capability, as required by the scenario, to identify and take appropriate actions concerning impediments to evacuation. Actual dispatch of resources to deal with impediments, such as wreckers, need not be demonstrated; however, all contacts, actual or simulated should be logged.

All activities must be based on the ORO's plans and procedures and completed, as they would be in an actual emergency, unless specified above or indicated in the extent of play agreement.

REGION EXTENT OF PLAY:

N/A in Oregon.

EVALUATION AREA 3: PROTECTIVE ACTION IMPLEMENTATION

Sub-element 3.e – Implementation of Ingestion Pathway Decisions

Criterion 3.e.1: The ORO demonstrates the availability and appropriate use of adequate information regarding water, food supplies, milk, and agricultural production within the ingestion exposure pathway emergency planning zone for implementation of protective actions. NUREG-0654, J.9, 11)

- Was this Criterion adequately demonstrated? YES _____ NO _____ N/A _____

If **NO**, identify all exercise issues on the following page by addressing the elements listed on the attached **ISSUES FOR CRITERION** form.

Remember, if there is no effect or potential effect, there is no exercise issue.

- **Reminder:** Provide a complete evaluator packet to the Team Leader with a detailed written narrative, timeline of observations, and all forms and information used during the exercise. Cite outstanding performance where observed.
- The following **INTENT, EXTENT OF PLAY**, and Region ___ Extent of Play information is provided. Consult extent of play agreement and your Team Leader for how it applies to your assigned location.

INTENT

This sub-element is derived from NUREG-0654, which provides that OROs should have the capability to implement protective actions, based on criteria recommended by current Food and Drug Administration guidance, for the ingestion pathway emergency planning zone (IPZ), the area within an approximate 50-mile radius of the nuclear power plant. This sub-element focuses on those actions required for implementation of protective actions.

EXTENT OF PLAY

Applicable OROs should demonstrate the capability to secure and utilize current information on the locations of dairy farms, meat and poultry producers, fisheries, fruit growers, vegetable growers, grain producers, food processing plants, and water supply intake points to implement protective actions within the ingestion pathway EPZ.

OROs should use Federal resources as identified in the FRERP, and other resources (e.g. compacts, nuclear insurers, etc), if available. Evaluation of this criterion will take into consideration the level of Federal and other resources participating in the exercise.

All activities must be based on the ORO's plans and procedures and completed, as they would be in an actual emergency, unless noted above or otherwise indicated in the extent of play agreement.

REGION EXTENT OF PLAY:

1. There are no limitations for this criterion at the ODOE EOC.
2. There are no limitations for this criterion at the Morrow County EOC.
3. There are no limitations for this criterion at the Umatilla County EOC.

EVALUATION AREA 3: PROTECTIVE ACTION IMPLEMENTATION

Sub-element 3.e – Implementation of Ingestion Pathway Decisions

Criterion 3.e.2: Appropriate measures, strategies, and pre-printed instructional material are developed for implementing protective action decisions for contaminated water, food products, milk, and agricultural production. (NUREG-0654, E.5, 7; J.9, 11)

- Was this Criterion adequately demonstrated? YES _____ NO _____ N/A _____

If **NO**, identify all exercise issues on the following page by addressing the elements listed on the attached **ISSUES FOR CRITERION** form.

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- **Reminder:** Provide a complete evaluator packet to the Team Leader with a detailed written narrative, timeline of observations, and all forms and information used during the exercise. Cite outstanding performance where observed.
- The following **INTENT, EXTENT OF PLAY**, and Region ___ Extent of Play information is provided. Consult extent of play agreement and your Team Leader for how it applies to your assigned location.

INTENT

This sub-element is derived from NUREG-0654, which provides that OROs should have the capability to implement protective actions, based on criteria recommended by current Food and Drug Administration guidance, for the ingestion pathway emergency planning zone (IPZ), the area within an approximate 50-mile radius of the nuclear power plant. This sub-element focuses on those actions required for implementation of protective actions.

EXTENT OF PLAY

Development of measures and strategies for implementation of IPZ protective actions should be demonstrated by formulation of protective action information for the general public and food producers and processors. This includes either pre-distributed public information material in the Ingestion Pathway Zone or the capability for rapid distribution of appropriate camera-ready information and instructions to pre-determined individuals and businesses. OROs should demonstrate the capability to control, restrict or prevent distribution of contaminated food by commercial sectors. Exercise play should include demonstration of communications and coordination between organizations to implement protective actions. Actual field play of implementation activities may be simulated. For example, communications and coordination with agencies responsible for enforcing food controls within the IPZ should be demonstrated, but actual communications with food producers and processors may be simulated.

All activities must be based on the ORO's plans and procedures and completed, as they would be in an actual emergency, unless noted above or otherwise indicated in the extent of play agreement.

REGION EXTENT OF PLAY:

1. At the ODOE EOC, Morrow County EOC, and Umatilla County EOC the actual dissemination of pre-printed materials will be simulated. Instead, the Public Information Officer at each facility will explain to FEMA evaluators Oregon's procedures for the dissemination of pre-printed instructional materials to satisfy this portion of the criterion.
2. The ODOE EOC, Morrow County EOC, and Umatilla County EOC actions will be limited to the development of geo-political boundaries for a Food Control Area. If the Food Control Area crosses state lines, decision-makers at the ODOE EOC will work decision makers at the Washington EOC. Together they will coordinate the development of geo-political boundaries at the state border.
3. At the ODOT Port of Entry, Oregon Health Field Teams will demonstrate the establishment and operation of a food control point. Oregon Field Teams will be supported by Oregon Department of Agriculture, Morrow County EOC, and Umatilla County EOC representatives.

Note: Issue No: 69-03-3.e.2-A-01

Condition: Umatilla County did not have a supply of Oregon's Hanford Emergency Preparedness Brochure that was to be distributed to the public and the Ag community during the early phase of the incident. No supply of pre-printed copies available at distribution points. OR Energy web-site showed brochure available only during drills and actual events. No letters of Agreement available with designated public distribution points.

ODOE and Umatilla County will revise its procedures to address this ARCA and demonstrate this in the September 9-10, 2008 Ingestion Exercise.

EVALUATION AREA 3: PROTECTIVE ACTION IMPLEMENTATION

Sub-element 3.f. – Implementation of Relocation, Re-entry, and Return Decisions

Criterion 3.f.1: Decisions regarding controlled re-entry of emergency workers and relocation and return of the public are coordinated with appropriate organizations and implemented. (NUREG-0654, M.1, 3)

- Was this Criterion adequately demonstrated? YES _____ NO _____ N/A _____

If **NO**, identify all exercise issues on the following page by addressing the elements listed on the attached **ISSUES FOR CRITERION** form.

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- The following **INTENT, EXTENT OF PLAY**, and Region ___ Extent of Play information is provided. Consult extent of play agreement and your Team Leader for how it applies to your assigned location.

INTENT

This sub-element is derived from NUREG-0654, which provides that OROs should demonstrate the capability to implement plans, procedures, and decisions for relocation, re-entry, and return. Implementation of these decisions is essential for the protection of the public from the direct long-term exposure to deposited radioactive materials from a severe accident at a commercial nuclear power plant.

EXTENT OF PLAY

Relocation: OROs should demonstrate the capability to coordinate and implement decisions concerning relocation of individuals, not previously evacuated, to an area where radiological contamination will not expose the general public to doses that exceed the relocation PAGs. OROs should also demonstrate the capability to provide for short-term or long-term relocation of evacuees who lived in areas that have residual radiation levels above the (first-, second-, and fifty-year) PAGs.

Areas of consideration should include the capability to communicate with OROs regarding timing of actions, notification of the population of the procedures for relocation, and the notification of, and advice for, evacuated individuals who will be converted to relocation status in situations where they will not be able to return to their homes due to high levels of contamination. OROs should also demonstrate the capability to communicate instructions to the public regarding relocation decisions.

Re-entry: OROs should demonstrate the capability to control re-entry and exit of individuals who need to temporarily re-enter the restricted area, to protect them from unnecessary radiation exposure and for exit of vehicles and other equipment to control the spread of contamination outside the restricted area. Monitoring and decontamination facilities will be established as appropriate.

Examples of control procedure subjects are: (1) the assignment of, or checking for, direct-reading and non-direct-reading dosimeters for emergency workers; (2) questions regarding the individuals' objectives and locations expected to be visited and associated timeframes; (3) maps and plots of radiation exposure rates; (4) advice on areas to avoid; and procedures for exit, including monitoring of individuals, vehicles, and equipment, decision criteria regarding contamination, proper disposition of emergency worker dosimeters, and maintenance of emergency worker radiation exposure records.

Return: OROs should demonstrate the capability to implement policies concerning return of members of the public to areas that were evacuated during the plume phase. OROs should demonstrate the capability to identify and prioritize services and facilities that require restoration within a few days, and to identify the procedures and resources for their restoration. Examples of these services and facilities are medical and social services, utilities, roads, schools, and intermediate term housing for relocated persons.

Communications among OROs for relocation, re-entry, and return may be simulated; however all simulated or actual contacts should be documented. These discussions may be accomplished in a group setting.

ORO's should use Federal resources as identified in the FRERP, and other resources (e.g. compacts, nuclear insurers, etc), if available. Evaluation of this criterion will take into consideration the level of Federal and other resources participating in the exercise.

All activities must be based on the ORO's plans and procedures and completed as they would be in an actual emergency, unless noted above or otherwise indicated in the extent of play agreement.

REGION EXTENT OF PLAY:

N/A in Oregon.

EVALUATION AREA 4: FIELD MEASUREMENT AND ANALYSIS

Sub-element 4.a – Plume Phase Field Measurements and Analyses

Criterion 4.a.1: The field teams are equipped to perform field measurements of direct radiation exposure (cloud and ground shine) and to sample airborne radioiodine and particulates. (NUREG-0654, H.10; I.8, 9, 11)

- Was this Criterion adequately demonstrated? YES _____ NO _____ N/A _____

If **NO**, identify all exercise issues on the following page by addressing the elements listed on the attached **ISSUES FOR CRITERION** form.

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- **Reminder:** Provide a complete evaluator packet to the Team Leader with a detailed written narrative, timeline of observations, and all forms and information used during the exercise. Cite outstanding performance where observed.
- The following **INTENT, EXTENT OF PLAY**, and Region ___ Extent of Play information is provided. Consult extent of play agreement and your Team Leader for how it applies to your assigned location.

INTENT

This sub-element is derived from NUREG-0654, which provides that OROs should have the capability to deploy field teams with the equipment, methods, and expertise necessary to determine the location of airborne radiation and particulate deposition on the ground from an airborne plume. In addition, NUREG-0654 indicates that OROs should have the capability to use field teams within the plume emergency planning zone to measure airborne radioiodine in the presence of noble gases and to detect radioactive particulate material in the airborne plume.

In the event of an accident at a nuclear power plant, the possible release of radioactive material may pose a risk to the nearby population and environment. Although accident assessment methods are available to project the extent and magnitude of a release, these methods are subject to large uncertainties. During an accident, it is important to collect field radiological data in order to help characterize any radiological release. Adequate equipment and procedures are essential to such field measurement efforts.

EXTENT OF PLAY

Field teams should be equipped with all instruments and supplies necessary to accomplish their mission. This should include instruments capable of measuring gamma exposure rates and detecting the presence of beta radiation. These instruments should be capable of measuring a range of activity and exposure, including radiological protection/exposure control of team members and detection of activity on the air sample collection media, consistent with the intended use of the instrument and

the ORO's plans and procedures. An appropriate radioactive check source should be used to verify proper operational response for each low range radiation measurement instrument (less than 1 R/hr) and for high range instruments when available. If a source is not available for a high range instrument, a procedure should exist to operationally test the instrument before entering an area where only a high range instrument can make useful readings.

All activities must be based on the ORO's plans and procedures and completed as they would be in an actual emergency, unless noted above or otherwise indicated in the extent of play agreement.

REGION EXTENT OF PLAY:

1. There are no limitations for the Oregon Health Field Team(s).

EVALUATION AREA 4: FIELD MEASUREMENT AND ANALYSIS

Sub-element 4.a – Plume Phase Field Measurements and Analyses

Criterion 4.a.2: Field teams are managed to obtain sufficient information to help characterize the release and to control radiation exposure. (NUREG-0654, I.8, 11; J.10.a)

- Was this Criterion adequately demonstrated? YES _____ NO _____ N/A _____

If **NO**, identify all exercise issues on the following page by addressing the elements listed on the attached **ISSUES FOR CRITERION** form.

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- The following **INTENT, EXTENT OF PLAY**, and Region ___ Extent of Play information is provided. Consult extent of play agreement and your Team Leader for how it applies to your assigned location.

INTENT

This sub-element is derived from NUREG-0654, which provides that OROs should have the capability to deploy field teams with the equipment, methods, and expertise necessary to determine the location of airborne radiation and particulate deposition on the ground from an airborne plume. In addition, NUREG-0654 indicates that OROs should have the capability to use field teams within the plume emergency planning zone to measure airborne radioiodine in the presence of noble gases and to measure radioactive particulate material in the airborne plume.

In the event of an accident at a nuclear power plant, the possible release of radioactive material may pose a risk to the nearby population and environment. Although accident assessment methods are available to project the extent and magnitude of a release, these methods are subject to large uncertainties. During an accident, it is important to collect field radiological data in order to help characterize any radiological release. This does not imply that plume exposure projections should be made from the field data. Adequate equipment and procedures are essential to such field measurement efforts.

EXTENT OF PLAY

Responsible OROs should demonstrate the capability to brief teams on predicted plume location and direction, travel speed, and exposure control procedures before deployment.

Field measurements are needed to help characterize the release and to support the adequacy of implemented protective actions or to be a factor in modifying protective actions. Teams should be directed to take measurements in such locations, at such times to provide information sufficient to characterize the plume and impacts.

If the responsibility to obtain peak measurements in the plume has been accepted by license field monitoring teams, with concurrence from OROs, there is no requirement for these measurements to be repeated by State and local monitoring teams. If the license teams do not obtain peak measurements in the plume, it is the ORO's decision as to whether peak measurements are necessary to sufficiently characterize the plume. The sharing and coordination of plume measurement information among all field teams (licensee, federal, and ORO) is essential. Coordination concerning transfer of samples, including a chain-of-custody form, to a radiological laboratory should be demonstrated.

OROs should use Federal resources as identified in the Federal Radiological Emergency Response Plan (FRERP), and other resources (e.g., compacts, etc), if available. Evaluation of this criterion will take into consideration the level of Federal and other resources participating in the exercise.

All activities must be based on the ORO's plans and procedures and completed, as they would be in an actual emergency, unless noted above or otherwise indicated in the extent of play agreement.

REGION EXTENT OF PLAY:

1. Each Oregon Health Field Team will demonstrate radiation surveys.

EVALUATION AREA 4: FIELD MEASUREMENT AND ANALYSIS

Sub-element 4.a – Plume Phase Field Measurements and Analyses

Criterion 4.a.3: Ambient radiation measurements are made and recorded at appropriate locations, and radioiodine and particulate samples are collected. Teams will move to an appropriate low background location to determine whether any significant (as specified in the plan and/or procedures) amount of radioactivity has been collected on the sampling media. (NUREG-0654, I.8, 9, 11)

- Was this Criterion adequately demonstrated? YES _____ NO _____ N/A _____

If **NO**, identify all exercise issues on the following page by addressing the elements listed on the attached **ISSUES FOR CRITERION** form.

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- The following **INTENT, EXTENT OF PLAY**, and Region ___ Extent of Play information is provided. Consult extent of play agreement and your Team Leader for how it applies to your assigned location.

INTENT

This sub-element is derived from NUREG-0654, which provides that OROs should have the capability to deploy field teams with the equipment, methods, and expertise necessary to determine the location of airborne radiation and particulate deposition on the ground from an airborne plume. In addition, NUREG-0654 indicates that OROs should have the capability to use field teams within the plume emergency planning zone to measure airborne radioiodine in the presence of noble gases and to measure radioactive particulate material in the airborne plume.

In the event of an accident at a nuclear power plant, the possible release of radioactive material may pose a risk to the nearby population and environment. Although accident assessment methods are available to project the extent and magnitude of a release, these methods are subject to large uncertainties. During an accident, it is important to collect field radiological data in order to help characterize any radiological release. This does not imply that plume exposure projections should be made from the field data. Adequate equipment and procedures are essential to such field measurement efforts.

EXTENT OF PLAY

Field teams should demonstrate the capability to report measurements and field data pertaining to the measurement of airborne radioiodine and particulates to the field team coordinator, dose assessment, or other appropriate authority. If samples have radioactivity significantly above background, the appropriate authority should consider the need for expedited laboratory analyses of these samples. OROs should share data in a timely manner with all appropriate OROs. The methodology, including contamination control, instrumentation, preparation of samples, and a chain-of-custody form for transfer to a laboratory, will be in accordance with the ORO plan and/or procedures.

ORO's should use Federal resources as identified in the FRERP, and other resources (e.g., compacts, etc), if available. Evaluation of this criterion will take into consideration the level of Federal and other resources participating in the exercise.

All activities must be based on the ORO's plans and procedures and completed as they would be in an actual emergency, unless noted above or otherwise indicated in the extent of play agreement.

REGION EXTENT OF PLAY:

1. Each Oregon Health Field Team will demonstrate the collection of two air samples.

EVALUATION AREA 4: FIELD MEASUREMENT AND ANALYSIS

Sub-element 4.b – Post Plume Phase Field Measurements and Sampling

Criterion 4.b.1: The field teams demonstrate the capability to make appropriate measurements and to collect appropriate samples (e.g., food crops, milk, water, vegetation, and soil) to support adequate assessments and protective action decision-making. (NUREG-0654, I.8; J.11)

- Was this Criterion adequately demonstrated? YES _____ NO _____ N/A _____

If **NO**, identify all exercise issues on the following page by addressing the elements listed on the attached **ISSUES FOR CRITERION** form.

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INTENT

This sub-element is derived from NUREG-0654, which provides that OROs should have the capability to assess the actual or potential magnitude and locations of radiological hazards in the ingestion emergency planning zone (IPZ) and for relocation, re-entry and return measures.

This sub-element focuses on the collection of environmental samples for laboratory analyses that are essential for decisions on protection of the public from contaminated food and water and direct radiation from deposited materials.

EXTENT OF PLAY

The ORO field teams should demonstrate the capability to take measurements and samples, at such times and locations as directed, to enable an adequate assessment of the ingestion pathway and to support re-entry, relocation, and return decisions. When resources are available, the use of aerial surveys and in-situ gamma measurement is appropriate. All methodology, including contamination control,

instrumentation, preparation of samples, and a chain-of-custody form for transfer to a laboratory, will be in accordance with the ORO's plan and/or procedures.

Ingestion pathway samples should be secured from agricultural products and water. Samples in support of relocation and return should be secured from soil, vegetation, and other surfaces in areas that received radioactive ground deposition.

OROs should use Federal resources as identified in the FRERP, and other resources (e.g. compacts, nuclear insurers, etc), if available. Evaluation of this criterion will take into consideration the level of Federal and other resources participating in the exercise.

All activities must be based on the ORO's plans and procedures and completed as they would be in an actual emergency, unless noted above or otherwise indicated in the extent of play agreement.

REGION EXTENT OF PLAY:

1. Each Oregon Health Field Team will demonstrate the collection of two water, two milk, two vegetation, and two soil samples.

EVALUATION AREA 4: FIELD MEASUREMENT AND ANALYSIS

Sub-element 4.c - Laboratory Operations

Criterion 4.c.1: The laboratory is capable of performing required radiological analyses to support protective action decisions. (NUREG-0654, C.3; I.8, 9; J.11)

- Was this Criterion adequately demonstrated? YES _____ NO _____ N/A _____

If **NO**, identify all exercise issues on the following page by addressing the elements listed on the attached **ISSUES FOR CRITERION** form.

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INTENT

This sub-element is derived from NUREG-0654, which provides that OROs should have the capability to perform laboratory analyses of radioactivity in air, liquid, and environmental samples to support protective action decision-making.

EXTENT OF PLAY

The laboratory staff should demonstrate the capability to follow appropriate procedures for receiving samples, including logging of information, preventing contamination of the laboratory, preventing buildup of background radiation due to stored samples, preventing cross contamination of samples, preserving samples that may spoil (e.g., milk), and keeping track of sample identity. In addition, the laboratory staff should demonstrate the capability to prepare samples for conducting measurements.

The laboratory should be appropriately equipped to provide analyses of media, as requested, on a timely basis, of sufficient quality and sensitivity to support assessments and decisions as anticipated by the ORO's plans and procedures. The laboratory(ies) instrument calibrations should be traceable to standards provided by the National Institute of Standards and Technology. Laboratory methods used to analyze typical radionuclides

released in a reactor incident should be as described in the plans and procedures. New or revised methods may be used to analyze atypical radionuclide releases (e.g. transuranics or as a result of

a terrorist event) or if warranted by circumstances of the event. Analysis may require resources beyond those of the ORO.

The laboratory staff should be qualified in radioanalytical techniques and contamination control procedures.

OROs should use Federal resources as identified in the FRERP, and other resources (e.g. compacts, nuclear insurers, etc), if available. Evaluation of this criterion will take into consideration the level of Federal and other resources participating in the exercise.

All activities must be based on the ORO's plans and procedures and completed, as they would be in an actual emergency, unless noted above or otherwise indicated in the extent of play agreement.

REGION EXTENT OF PLAY:

1. The Oregon State University Radiation Center Laboratory will demonstrate this criterion for evaluation in an out-of-sequence exercise in June 2011 in conjunction with the Washington State Laboratory.

EVALUATION AREA 5: EMERGENCY NOTIFICATION & PUBLIC INFORMATION

Sub-element 5.a – Activation of the Prompt Alert and Notification System

Criterion 5.a.1: Activities associated with primary alerting and notification of the public are completed in a timely manner following the initial decision by authorized offsite emergency officials to notify the public of an emergency situation. The initial instructional message to the public must include as a minimum the elements required by current FEMA REP guidance. (10 CFR Part 50, Appendix E & NUREG-0654, E.1, 4, 5, 6, 7)

- Was this Criterion adequately demonstrated? YES _____ NO _____ N/A _____

If **NO**, identify all exercise issues on the following page by addressing the elements listed on the attached **ISSUES FOR CRITERION** form.

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- The following **INTENT, EXTENT OF PLAY**, and Region ___ Extent of Play information is provided. Consult extent of play agreement and your Team Leader for how it applies to your assigned location.

INTENT

This sub-element is derived from NUREG-0654, which provides that OROs should have the capability to provide prompt instructions to the public within the plume pathway EPZ. Specific provisions addressed in this sub-element are derived from the Nuclear Regulatory Commission (NRC) regulations (10 CFR Part 50, Appendix E.IV.D.), and FEMA-REP-10, "Guide for the Evaluation of Alert and Notification systems for Nuclear Power Plants."

EXTENT OF PLAY

Responsible OROs should demonstrate the capability to sequentially provide an alert signal followed by an initial instructional message to populated areas (permanent resident and transient) throughout the 10-mile plume pathway EPZ. Following the decision to activate the alert and notification system, in accordance with the ORO's plan and/or procedures, completion of system activation should be accomplished in a timely manner (**will not be subject to specific time requirements**) for primary alerting/notification. The initial message should include the elements required by current FEMA REP guidance.

OROs with route alerting as the primary method of alerting and notifying the public should demonstrate the capability to accomplish the primary route alerting, following the decision to activate the alert and notification system, in a timely manner (will not be subject to specific time

requirements) in accordance with the ORO's plan and/or procedures. At least one route needs to be demonstrated and evaluated. The selected route(s) should vary from exercise to exercise. However, the most difficult route should be demonstrated at least once every six years. All alert and notification activities along the route should be simulated (that is, the message that would actually be used is read for the evaluator, but not actually broadcast) as agreed upon in the extent of play. Actual testing of the mobile public address system will be conducted at some agreed upon location. The initial message should include the elements required by current FEMA REP guidance.

For exercise purposes, timely is defined as "the responsible ORO personnel/ representatives demonstrate actions to disseminate the appropriate information/ instructions with a sense of urgency and without undue delay." If message dissemination is to be identified as not having been accomplished in a timely manner, the evaluator(s) will document a specific delay or cause as to why a message was not considered timely.

Procedures to broadcast the message should be fully demonstrated as they would in an actual emergency up to the point of transmission. Broadcast of the message(s) or test messages is **not required**. The alert signal activation may be simulated. However, the procedures should be demonstrated up to the point of actual activation.

The capability of the primary notification system to broadcast an instructional message on a 24-hour basis should be verified during an interview with appropriate personnel from the primary notification system.

All activities for this criterion must be based on the ORO's plans and procedures and completed as they would be in an actual emergency, except as noted above or otherwise indicated in the extent of play agreement.

REGION EXTENT OF PLAY:

N/A in Oregon.

EVALUATION AREA 5: EMERGENCY NOTIFICATION & PUBLIC INFORMATION

Sub-element 5.a – Activation of the Prompt Alert and Notification System

Criterion 5.a.2: RESERVED

- Was this Criterion adequately demonstrated? YES _____ NO _____ N/A _____

If **NO**, identify all exercise issues on the following page by addressing the elements listed on the attached **ISSUES FOR CRITERION** form.

Remember, if there is no effect or potential effect, there is no exercise issue.

- **Reminder:** Provide a complete evaluator packet to the Team Leader with a detailed written narrative, timeline of observations, and all forms and information used during the exercise. Cite outstanding performance where observed.
- The following **INTENT, EXTENT OF PLAY**, and Region ___ Extent of Play information is provided. Consult extent of play agreement and your Team Leader for how it applies to your assigned location.

INTENT

EXTENT OF PLAY

N/A in Oregon.

EVALUATION AREA 5: EMERGENCY NOTIFICATION & PUBLIC INFORMATION

Sub-element 5.a – Activation of the Prompt Alert and Notification System

Criterion 5.a.3: Activities associated with FEMA approved exception areas (where applicable) are completed within 45 minutes following the initial decision by authorized offsite emergency officials to notify the public of an emergency situation. Backup alert and notification of the public is completed within 45 minutes following the detection by the ORO of a failure of the primary alert and notification system. (NUREG-0654, E. 6; Appendix 3.B.2.c)

- Was this Criterion adequately demonstrated? YES_____ NO_____ N/A_____

If **NO**, identify all exercise issues on the following page by addressing the elements listed on the attached **ISSUES FOR CRITERION** form.

Remember, if there is no effect or potential effect, there is no exercise issue.

- **Reminder:** Provide a complete evaluator packet to the Team Leader with a detailed written narrative, timeline of observations, and all forms and information used during the exercise. Cite outstanding performance where observed.
- The following **INTENT, EXTENT OF PLAY**, and Region ___ Extent of Play information is provided. Consult extent of play agreement and your Team Leader for how it applies to your assigned location.

INTENT

This sub-element is derived from NUREG-0654, which provides that OROs should have the capability to provide prompt instructions to the public within the plume pathway EPZ. Specific provisions addressed in this sub-element are derived from the Nuclear Regulatory Commission (NRC) regulations (10 CFR Part 50, Appendix E.IV.D.) and FEMA-REP-10, "Guide for the Evaluation of Alert and Notification systems for Nuclear Power Plants."

EXTENT OF PLAY

ORO with FEMA-approved exception areas (identified in the approved Alert and Notification System Design Report) 5-10 miles from the nuclear power plant should demonstrate the capability to accomplish primary alerting and notification of the exception area(s) within 45 minutes following the initial decision by authorized offsite emergency officials to notify the public of an emergency situation. The 45-minute clock will begin when the OROs make the decision to activate the alert and notification system for the first time for a specific emergency situation. The initial message should, at a minimum, include: a statement that an emergency exists at the plant and where to obtain additional information.

For exception area alerting, at least one route needs to be demonstrated and evaluated. The selected routes should vary from exercise to exercise. However, the most difficult route should be demonstrated at least once every six years. All alert and notification activities along the route should be simulated (e.g., the message that would actually be used is read for the evaluator, but not actually broadcast) as agreed upon in the extent of play. Actual testing of the mobile public address system will be conducted at some agreed upon location.

Backup alert and notification of the public should be completed within 45 minutes following the detection by the ORO of a failure of the primary alert and notification system. Backup route alerting needs only be demonstrated and evaluated, in accordance with the ORO's plan and/or procedures and the extent of play agreement, if the exercise scenario calls for failure of any portion of the primary system(s), or if any portion of the primary system(s) actually fails to function. If demonstrated, only one route needs to be selected and demonstrated. All alert and notification activities along the route should be simulated (e.g., the message that would actually be used is read for the evaluator, but not actually broadcast) as agreed upon in the extent of play. Actual testing of the Public Address system will be conducted at some agreed upon location.

All activities for this criterion must be based on the ORO's plans and procedures and completed as they would be in an actual emergency, except as noted above or otherwise indicated in the extent of play agreement.

REGION EXTENT OF PLAY:

N/A in Oregon.

EVALUATION AREA 5: EMERGENCY NOTIFICATION & PUBLIC INFORMATION

Sub-element 5.b – Emergency Information and Instructions for the Public and the Media

Criterion 5.b.1: OROs provide accurate emergency information and instructions to the public and the news media in a timely manner. (NUREG-0654, E.5, 7; G.3.a; G.4.a, b, c)

- Was this Criterion adequately demonstrated? YES _____ NO _____ N/A _____

If **NO**, identify all exercise issues on the following page by addressing the elements listed on the attached **ISSUES FOR CRITERION** form.

Remember, if there is no effect or potential effect, there is no exercise issue.

- **Reminder:** Provide a complete evaluator packet to the Team Leader with a detailed written narrative, timeline of observations, and all forms and information used during the exercise. Cite outstanding performance where observed.
- The following **INTENT, EXTENT OF PLAY**, and Region ___ Extent of Play information is provided. Consult extent of play agreement and your Team Leader for how it applies to your assigned location.

INTENT

This sub-element is derived from NUREG-0654, which provides that OROs should have the capability to disseminate to the public appropriate emergency information and instructions including any recommended protective actions. In addition, NUREG-0654 provides that OROs should ensure the capability exists for providing information to the media. This includes the availability of a physical location for use by the media during an emergency. NUREG-0654 also provides that a system be available for dealing with rumors. This system will hereafter be known as the public inquiry hotline.

EXTENT OF PLAY

Subsequent emergency information and instructions should be provided to the public and the media in a timely manner (**will not be subject to specific time requirements**). For exercise purposes, timely is defined as “the responsible ORO personnel/representatives demonstrate actions to disseminate the appropriate information/instructions with a sense of urgency and without undue delay.” If message dissemination is to be identified as not having been accomplished in a

timely manner, the evaluator(s) will document a specific delay or cause as to why a message was not considered timely.

The OROs should ensure that emergency information and instructions are consistent with protective action decisions made by appropriate officials. The emergency information should contain all necessary and applicable instructions (e.g., evacuation instructions, evacuation routes, reception center locations, what to take when evacuating, information concerning pets, shelter-in-place instructions, information concerning protective actions for schools and special populations, public inquiry telephone number, etc.) to assist the public in carrying out protective action decisions provided to them. The ORO should also be prepared to disclose and explain the Emergency Classification Level (ECL) of the incident. At a minimum, this information must be included in media briefings and/or media releases. OROs should demonstrate the capability to use language that is clear and understandable to the public within both the plume and ingestion pathway EPZs. This includes demonstration of the capability to use familiar landmarks and boundaries to describe protective action areas.

The emergency information should be all-inclusive by including previously identified protective action areas that are still valid, as well as new areas. The OROs should demonstrate the capability to ensure that emergency information that is no longer valid is rescinded and not repeated by broadcast media. In addition, the OROs should demonstrate the capability to ensure that current emergency information is repeated at pre-established intervals in accordance with the plan and/or procedures.

ORO's should demonstrate the capability to develop emergency information in a non-English language when required by the plan and/or procedures.

If ingestion pathway measures are exercised, OROs should demonstrate that a system exists for rapid dissemination of ingestion pathway information to pre-determined individuals and businesses in accordance with the ORO's plan and/or procedures.

ORO's should demonstrate the capability to provide timely, accurate, concise, and coordinated information to the news media for subsequent dissemination to the public. This would include demonstration of the capability to conduct timely and pertinent media briefings and distribute media releases as the situation warrants. The OROs should demonstrate the capability to respond appropriately to inquiries from the news media. All information presented in media briefings and media releases should be consistent with protective action decisions and other emergency information provided to the public. Copies of pertinent emergency information (e.g., EAS messages and media releases) and media information kits should be available for dissemination to the media.

ORO's should demonstrate that an effective system is in place for dealing with calls to the public inquiry hotline. Hotline staff should demonstrate the capability to provide or obtain accurate information for callers or refer them to an appropriate information source. Information from the hotline staff, including information that corrects false or inaccurate information when trends are noted, should be included, as appropriate, in emergency information provided to the public, media briefings, and/or media releases.

All activities for this criterion must be based on the ORO's plans and procedures and completed, as they would be in an actual emergency, unless noted above or otherwise indicated in the extent of play agreement.

REGION EXTENT OF PLAY:

- 1 While multiple news releases will be developed to demonstrate this criterion, two news conferences will be conducted. The first news conference will be conducted on Day 1. The second news conference will be on Day 2 after Oregon has made ingestion decisions and established a Food Control Boundary and Food Control Points. Oregon news conferences will be conducted in Capitol Press room at the State Capitol located at 900 Court St NE, Salem, OR 97301.
2. The Public Information Officer at the ODOE EOC will determine when to activate and staff the Telephone Information Center (Rumor Control).
3. Once the PIO activates the Telephone Information Center, the Center will be staffed and operational for two hours on Day 1 of the exercise. On Day 2, a controller inject will be used to activate the Telephone Information Center for another two hours.

APPENDIX 4: Exercise Scenario

This appendix contains a summary of the simulated sequence of events used as the basis for invoking emergency response actions by Offsite Response Organizations (OROs) during the Columbia Generating Station (CGS) exercise on (September 9 and 10, 2008).

The exercise scenario was submitted by the States of Washington and Oregon. The scenario was approved by the Federal Emergency Management Agency (FEMA) Region X on September 7, 2008.

The summary presented in this appendix is a compilation of exercise scenario materials submitted by the States of Washington and Oregon and Energy Northwest. Events at the plant site that are not pertinent to the ORO response have been omitted.

COLUMBIA GENERATING STATION PLUME AND INGESTION EXERCISE SEPTEMBER 9-10, 2008 EXERCISE SCENARIO NARRATIVE SUMMARY

Initial Conditions

For the past 417 days Columbia Generating Station has been operating at or near 100% power. The temperature is 58 F with winds from the northwest at 5 mph. It is an overcast morning with front moving through the area and light precipitation in the forecast later in the afternoon. Clearing is not expected for the next 24 hours.

A small confirmed reactor coolant leak of approximately 4 gpm developed on the last shift and is being monitored. ABN-LEAKAGE and Tech Spec 3.4.5.B were entered at 0420 this morning. Based on concerns that a scram transient could substantially increase the leak rate, an Operational Decision has been issued with the following guidance:

- If any increase in the leakrate occurs immediately begin a controlled reactor shutdown.
- If drywell pressure reaches 1.2 psig, reduce reactor recirculation flow to 60Mlbm, manually scram the reactor and begin a cooldown not to exceed 100 F per hour.

It is a Division 1 work week and normal planned maintenance activities are underway. Standby Gas Treatment (SGT) Train A is out of service for carbon bed filter testing and Standby Liquid Control SLC-M-P/1A for motor rebuild.

The plant entered Technical Specification 3.1.7.1.A, Standby Liquid Control (SLC) System and 3.6.4.3.A, Standby Gas Treatment (SGT) System at 0800 September 8th.

Inoperable Equipment

- SGT Train A

- SLC-P-1A

Narrative

The scenario starts with the plant operating at 100% power. SGT Train A and SLC-P-1A are out of service for maintenance. A small confirmed reactor coolant leak is being monitored with unidentified leakage at 4 gallons per minute (gpm) and containment pressure elevated.

The first event is an increase in unidentified leakage that exceeds 10 gpm. The crew will declare an Unusual Event per 2.1.U.1, *Valid unidentified leakage GE 10 gpm or upscale high indicated on recorder EDR-FRS-623, Pen 1 (P-632) (Non RCC)*.

Note:

A failure of the Met Tower card should be recognized while completing the Columbia Notification Form from for the Unusual Event declaration. All meteorological indication at (P823-02) will read downscale but normal indication will be available on the Plant Process Computer Replacement System. **(If/when centers are manned, a maintenance team should be sent to investigate and repair the problem.)**

Following crew response to the rising unidentified leakage, a failure of High-Pressure Core Spray HPCS-P-3, HPCS Keep Fill pump will occur. Operators will be dispatched to investigate and determine that the pump shaft coupling has failed. Maintenance will be contacted for support. **(If/when centers are manned, a maintenance team should be sent to investigate and repair the problem.)**

Coolant leakage will continue to increase to the point that combined reactor coolant leakage exceeds 30 gpm. The crew will declare an ALERT per 2.1.A.1, *Total RCS leakage GT 30 gpm inside PC OR EDR-FRS-623 Pen 2 upscale*.

Emergency notifications are made and the Emergency Response Organization is activated.

Events occur during the next hour that set up a radiological release to the environment.

The increased coolant leakage will raise containment temperature and pressure and the crew will take action to manually scram the reactor when the drywell pressure action point is reached.

A full hydraulic Anticipated Transient Without Scram will occur on the scram.

The crew will declare a SITE AREA EMERGENCY per 2.2.S.1 *Any Reactor Protection System (RPS) setpoint (including manual) has been exceeded per T.S.3.3.1.1 and RPS actuation failed to result in a control rod pattern which alone always assures reactor shutdown under all conditions and Reactor power GT 5%” or 3.4.S.2, Indications of a Main Steam Line (MSL) break- AND- Main Steam Isolation Valve (MSIV) closure has not isolated the leak.*

The crew will enter PPM 5.1.1 and exit to PPM 5.1.2 Reactor power will be approximately 45%. The crew will initiate SLC and SLC-V-29B will open and stick on system initiation preventing SLC injection

(A repair team should be sent to investigate and repair the problem.)
There will be a success path for the repair team.

The crew will perform PPM 5.5.10 and 5.5.11 to insert control rods. Scram reset scram will not work to insert rods and the Rod Worth Minimizer (RWM) Bypass key will fail preventing bypassing of rod blocks. Control rods cannot be inserted.

(A repair team should be sent to investigate and repair the problem associated with the RWM Bypass Key.)

There will be a success path for the repair team.

The crew will lower Reactor Pressure Vessel (RPV) level to between -80" and -140". Reactor Core Isolation Cooling (RCIC) will be prevented from starting by the crew to keep the Main Turbine on line. Feed and Condensate will be utilized to maintain RPV level.

When containment pressure reaches 1.68#, the crew will identify that RHR-P-2C failed to start as expected.

(A repair team should be sent to investigate and repair the problem.)

There will be a success path for the repair team.

Repair team closes SLC-V-29B and boron is injected into the core. Reactor Power will decrease from SLC injection and lowered RPV level. The main generator will trip on reverse power and the S3 breaker will fail to close. SM-3 and SL-31 will lose power. SL-31 will be re-energized from SL-21.

(A repair team should be sent to investigate and repair the problem.)

There will be a success path for the repair team.

Following the turbine trip a steam leak will develop downstream, of MS-V-22A driving steam tunnel temperatures above the Max Safe Operating value.

Because the MSIV isolation signals were bypassed as required by PPM 5.1.2, RPV Control-ATWS, the crew will have to take action to fast close MSIVs and control reactor pressure on the Safety Relief Valves. The crew will identify that MS-V-22A is stuck open.

(A repair team should be sent to investigate and repair the problem.)

There will be a success path for the repair team.

The steam leak will become worse and the steam tunnel blowout panels rupture leaving a pathway for an unmonitored release.

Reactor water level will drop below -183". If reactor pressure is below the shutoff head of the condensate booster pumps, the condensate filter demineralizes will plug and the filter demin bypass valve (EPN) will fail closed causing a loss of condensate injection.

(A repair team should be sent to investigate and repair the problem.)

The Emergency Director will declare a GENERAL EMERGENCY per 2.1.G.2 "*RPV level LT-183 inches and failure of both containment isolation valves in any one line to close following auto or manual initiation AND downstream pathway to the environment exists.*

OR

4.1.G.1

Unisolable primary system discharging outside PC resulting in any area temperature or radiation level above Max Safe Operating Values- AND- RPV level LT-183”.

When RPV level decreases to LT -183”, the crew will enter PPM 5.1.5 and Emergency Depressurize the RPV.

RPV level will fall below indicated range on Fuel Zone level indicators but when RPV pressure decreases to 143# (minimum steam cooling pressure), RHR-P-2A and RHR-P-2B will be used to recover reactor water level through the shutdown cooling return line per PPM 5.5.26.

When injection is initiated, fuel damage will occur. With MS-V-22A failed open and the steam tunnel blowout panel blown, an unmonitored release begins.

MS-V-22A will close.

The release will be terminated due to the decrease in Primary Containment pressure and by the closing of MS-V-22A.

Timeline Summary

0700: Start Scenario Crew performs shift turnover, wind from 300 at 5mph.

0730: Small Reactor Coolant System leak exceeding 10 gpm unidentified leakage.

0735: Unusual Event Classification (2.1.U.1).

Valid unidentified leakage GE 10 gpm or upscale high indicated on recorder EDR-FRS-623. Pen 1 (P-632) (Non RCC).

0800: High Pressure Core Spray Keep Fill pump coupling failure.

0815: Total reactor coolant system leakage exceeds 30 gpm.

0820: Alert Classification (2.1.A.1).

Total RCS leakage GT 30 gpm inside PC OR EDR-FRS-623 Pen 2 upscale.

0930: Step change in reactor coolant leakage, manual reactor scram on rising drywell pressure Anticipated Transient Without Scram (ATWS).

0935: Site Area Emergency (2.2.S.1)

2.2.S.1:

Any RPS setpoint has been exceeded per Technical Specification 3.3.1.1 – AND- Automatic RPS actuation and manual actions failed to result in a control rod pattern which alone always assures reactor shutdown under all conditions- AND- Reactor power GT 5% or unknown.

0945: SLC-V-29 B failed open- no SLC injection

RWM Bypass Key fails- cannot manually insert control rods

RHR-P-2C failure to start on initiation

1015: SLC repaired

1035: Main turbine trip

Loss of 4160V bus SM-3.

Small steam line leak in the steam tunnel develops driving temperature to the Max Safe Operating Limit- crew manually closes MSIVs. Main steam isolation valve MS-V-22A fails to close.

1045: Main steam line ruptures, steam tunnel blowout panels rupture, **small unmonitored release begins.**

Loss of high pressure feed capability- reactor level drops below Top of Active Fuel (TAF).

Fuel damage increases due to loss of cooling.

1055: General Emergency Classification (2.1.G.2) May classify 4.1.G.1.

2.1.G.2

RPV level LT-183" (-161" non-ATWS)- AND- Failure of containment isolation valves in any one line to close following auto or manual initiation AND pathway outside primary containment and to the environment exists.

4.1.G.1

Unisolable primary system discharging outside PC resulting in any are a temperature or radiation level above Max Safe Operating Values- AND RPV level LT-183" (-161" non-ATWS)

1100: Wind shift, from 320 at 5 mph.

1200: Main Steam Isolation Valves closed, **Termination of release.**

1430: Transition of MUDAC to State of WA.

1445: Transition of JIC to State of WA.

1500: Exercise Day One activities terminated.

APPENDIX 5: Planning Issues

This appendix contains the Planning Issues assessed during the September 9 and 10, 2008 exercise at Columbia Generating Station (CGS) and those outstanding from earlier exercises. Planning Issues are issues identified in an exercise or drill that do not involve participant performance, but rather involve inadequacies in the plan or procedures. Planning Issues are required to be corrected through the revision and update of the appropriate State and local radiological emergency response plans (RERPs) and/or procedures in accordance with the following schedule:

- Within 120 days of the date of the exercise/drill when the Planning Issue is directly related to protection of the public health and safety.
- During the annual plan review and update (reported in the Annual Letter of Certification) when the Planning Issue does not directly affect the public health and safety. However, when the date for the annual plan review and update is imminent and the responsible organization does not have sufficient time to make the necessary revisions in the plans and/or procedures, the revised portion of the plans and/or procedures should be submitted in the subsequent annual plan review and update and reported in the Annual Letter of Certification.

Any requirement for additional training of responders to radiological emergencies necessitated by the revision and update of the plans and/or procedures must be completed within the timeframes described above in order for the Planning Issue to be considered resolved.

NEW PLANNING ISSUES

State of Washington Department of Health

Issue Number: 69-08-3.a.1-P-01

Condition: There may be possible confusion by Emergency Workers between designated Exposure Limits and Turn Back values when entering the revised Turn Back Values into the Dose Limit Action Guides for Emergency Workers.

Possible Cause: The nomenclature of the “Dose Limit Action Guide for Emergency Workers” and the “Emergency Worker Turn Back Value Report” could lead to confusion of EWs when they apply a correction factor to the exposure limits.

For example, the Dose Limit Action Guide references 5R as an exposure limit in column three where the turn-back value report addresses the value of the 1R

as a turn-back value. For 2.5R value column three should read administrative Exposure Limit on the 10C guide.

Reference: NUREG-0654, K.3.a, b

Effect: Emergency Workers could receive a greater than directed exposure limit based on the implementation of the correction factor to the regulatory limits identified in the “Dose Limit Action Guide for Emergency Workers”.

Recommendation: A possible solution would be to change the “Dose Limit Action Guide for Emergency Workers” by changing the following: It would be better if the second column would be changed from “Any Increase” to “Turn-back values” and the second column next to 2.5R should be shaded for no input and column three on the same row should change “TURN-BACK VALUE” to “ADMINISTRATIVE EXPOSURE LIMIT” to remain constant with the rest of the guidance.

Franklin County Bus Driver

Issue Number: 69-08-3.b.1-P-02

Condition: The Emergency Worker Kit for Franklin County Bus drivers does not include appropriate instructions for who should/should not take KI or its possible side effects.

Possible Cause: The proper instructions of KI ingestion are not part of the Emergency Worker Kit.

Reference: NUREG-0654, J.10.e

Effect: Emergency Workers could avoid unnecessary side effects of KI ingestion with proper KI instructions available in the Kit.

Recommendation: Amend the Franklin County ESF-10.C IP EW-0 and Bus Driver Kit to meet the current FDA guidelines for KI ingestion.

Issue Number: 69-08-3.e.1-P-03

Condition: Oregon did not demonstrate the availability and appropriate use of adequate information regarding water, food supplies and agricultural production within the ingestion planning zone.

Possible Cause: Oregon did not have a state agricultural representative in the EOF. Detailed planning of agricultural sampling within the recommended Food Control Area did not include specific information for Oregon. Although there was an Oregon agricultural representative stationed in the Oregon EOC and in

communication with the EOF, that communication was not effective in incorporating Oregon into the detailed sampling plan produced by the EOF. The Oregon portion of that plan consisted of only a single page of general instructions for obtaining vegetation, air, soil, and water. No specific agricultural crops or locations were included.

References: NUREG-0654, J.9, 11.

Effect: Ingestion pathway sampling for Oregon was not effectively coordinated with Washington through the EOF. The EOF detailed sampling plan did not include sampling locations and media for agricultural sampling in Oregon.

Recommendation: Oregon should consider staffing the EOF with a state agricultural specialist. Alternatively, close coordination with the Oregon EOC should be established specifically to ensure that agricultural information specific to Oregon is included in EOF products and planning.

Oregon Field Monitoring

Issue Number: 69-08-1.e.1-P-04

Condition: The Oregon State Public Health Procedure Tab D, Table D-1, *Emergency Worker AP Team Checklist* includes potassium iodide tablets as items to be obtained before departing Oregon Public Health. This conflicts with instructions found in *Oregon State Public Health Procedure for Columbia Generating Station Emergency Response* paragraph IX.C. This states ‘All potassium iodide supplies will be provided by Washington Health or Columbia Generating Station, if Oregon field teams are requested to enter within 10 miles of the plant.’

Possible Cause: Oversight during revision and review of the procedure.

References: NUREG-0654, J.10.e.
Oregon State Public Health Procedure Tab D, Table D-1;
Oregon State Public Health Procedure for Columbia Generating Station Emergency Response paragraph IX.C

Effect: Deployment of field teams could be delayed looking for potassium iodide to include in the kits or team members could believe that potassium is staged in the sealed kits and available for use.

Recommendation: Revise The Oregon state Public Health Procedure Tab D, Table D-1 to comply with *Oregon State Public Health Procedure for Columbia Generating Station Emergency Response* paragraph IX.C.

Umatilla County Emergency Operations Center
Issue Number: 69-08-5.b.1-P-05

Condition: The Umatilla County PIO identified radio station KONA 610 AM, 105.3 FM in their Emergency News Release dated September 10, 2008, 2:55 p.m. (9/10/2008, 1455). Each of the previous news releases on September 09, 2008 (9/10/2008) and the following news release developed by the Umatilla County PIO dated September 10, 2008, 3:00 p.m. (9/10/2008, 1500) referenced radio stations 1360 KOHU and 107.7 KUMA.

Possible Cause: There are no radio stations pre-identified for use in the Umatilla County Ingestion Pathway plan.

It appears that the Umatilla County PIO may have performed a cut and paste of information from either the State JIC or Morrow County PIO in an attempt to provide the public with the same protective action information from the Oregon Department of Agriculture. While her actions did capture the correct protective action recommendation, she did not change the last paragraph of the news release to reference local radio stations in Umatilla County.

References: NUREG-0654, E. 5, 7; G.3.a., G.4.c

Effect: The public could become confused as to which radio station they should listen to for information and updates about the event.

Recommendation: Update the Umatilla County Ingestion Pathway plan to include the specific radio station(s) that will be identified for all Emergency News Releases. Doing so will provide proper guidance to the PIO to ensure that the news releases disseminate consistent information to their public.

PRIOR PLANNING ISSUES RESOLVED

Franklin County Emergency Operations Center

Issue Number: 69-04-5.b.1-P-06

Condition: Production of News Release #6 on the Agriculture Advisory for Franklin County was slow. The draft was received at 1006 from Benton County. The recommendations included not drinking fresh milk produced since 0936, or eating vegetables or produce picked or harvested since 0936. It was edited to include the correct roads that served as boundaries, and finally sent to the Joint Information Center (JIC) around 1058. (It was distributed at the JIC by 1130.) It also asked them to listen to KONA 610 AM and 105.3 FM for the latest information, but none of the Emergency Alert System (EAS) messages broadcast contained information on the Agriculture Advisory, and this advisory was for an area outside the Emergency Planning Zone (EPZ). There was also no thought or discussion about translating and

disseminating this advisory in Spanish. This news release did not mention the statement “Do not transport any agricultural products from the above area.” A revised news release with this statement was produced and sent to the JIC at 1158. It was distributed at the JIC by 1209, but the news release number and time were not changed, and there was no indication that there was new or additional information in the news release.

Corrective Action Demonstrated: The recommended Agricultural Advisory was received in Franklin County at 1158. A news release was generated, approved and transmitted to the Joint Information Center at 1235. The Joint Information Center staff requested an additional change which was transmitted at 1305. The process by which the Agricultural Advisory is developed into a news release, approved and transmitted is timely.

Oregon Field Monitoring

Issue Number: 69-06-1.d.1-P-03

Condition: Oregon State Public Health Procedures Plan, Tab G, page 3: Communications Equipment lists “2 standard cell phones” as a part of the communication equipage for Oregon State Field Measurement Teams. Procedures Plan Tabs A, B and H all instruct field teams that cellular telephone communications are a primary method of communications. However, there is no provision for a mobile cell phone charger (i.e. none listed under Communications Equipment), and none is provided in the “go” kits.

A satellite phone is listed on the same tab as a secondary mode of communications. Again, no mobile charger for the sat phone is listed on the equipage.

Reason Issue Unresolved: Oregon State Public Health Procedures Plan, Tab G, page 3: Communications Equipment has not been revised to include chargers for either the satellite phones or the cellular phones. (Both field monitoring teams had chargers for their satellite phones and their cellular phone.)

Recommendation: Oregon State Public Health Procedures Plan, Tab G, page 3 should be revised to include chargers for both the satellite phones and the cellular phones.

PRIOR PLANNING ISSUES UNRESOLVED

Emergency Operations Facility

Issue Number: 69-04-2.b.1-P-02

Condition: After the designated State Health official made the decision to authorize the ingestion of KI by State and local emergency workers, there was no recalculation of a new Emergency Worker Exposure Correction Factors. There is no procedural requirement to produce a new correction factor; however, since the correction factor contains the contribution from the internal dose from the ingestion of radioiodine, a factor that does not account for the use of KI is overly conservative.

Reason Issue Unresolved: The Washington Department of Health Dose Assessor implemented actions specified in Section 2.2.4 of the Rev 8 draft, dated August 2008, of the Radiological Emergency Response Procedures Section 2 – Columbia Generating Station. This section required a calculation of a new Emergency Worker Exposure Correction Factor after the ingestion of KI had been approved. The calculation was made and a new correction factor was generated and transmitted to the State Health Liaison. In accordance with the draft plan, a default factor of 5 was used.

Recommendation: This issue should be considered closed when the current draft procedure is submitted as a final procedure revision.