



Federal Emergency Management Agency

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



September 24, 1999

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

Dear Mr. Merschoff:

Enclosed is a copy of the final report for the August 12, 1999, out-of-sequence Drills for Energy Northwest's Washington Nuclear Power Project #2 (Laboratory, Food Control Point, and Milk Sampling).

There were no Deficiencies and no Areas Requiring Corrective Actions (ARCAs) identified in the three drills.

Washington State and Franklin County citizens should be proud of the performance of those involved in these drills. Participants were the Washington Department of Health (Radiation Section) and their Public Health Laboratory staff, the Washington State Department of Agriculture's Field Office Coordinator and Food Safety Officer, Franklin County Emergency Management staff, Franklin County Sheriff's Office, and as Observers, the Washington National Guard. All our Evaluators were impressed with how the objectives were demonstrated.

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

Sincerely,

A handwritten signature in cursive script is located below the word "Sincerely,". The signature appears to read "David L. de Courcy".

David L. de Courcy
Regional Director

Enclosures
Final Drill Report
Distribution List

**Distribution List for Final WNP-2
Laboratory, Food Control Point, and Milk
Sampling Drills --Drill Date: 8-12-99**

**Richard S. Converse
ARGONNE
3458 E. florence Court
Seattle, WA 98112**

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

**George Hilton
WA DOH Environmental RAD Laboratory
1610 NE 150th
Seattle, WA 98155**

**Joseph H. Keller, Scientific Fellow
Special Programs, Mail Stop 2503
INEEL
P.O. Box 1625
Idaho Falls, ID 83415**

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

**Deborah J. Mauldin
Region X Liaison, FEMA HQ PT-EX-RG
500 C Street SW
Washington, DC 20472**

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

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

**Mike Mills, Compliance Manager
Energy Facility Site Evaluation Council
P.O. Box 43172
Olympia, WA 98504-3172**

**Mary Alice Peterson, Sp. Proj. Sr. Coord.
WA EM - Military Department
1315 West 4th Ave.
Kennewick, WA 99335-6018**

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

**Tom Rogers, REP Program Coordinator
Franklin County EM
502 Boeing Street
Pasco, WA 99301**

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

**Steven St. John, Safety Program Mngr.
WA Department of Agriculture
P.O. Box 42560
Olympia, WA 98504 2560**

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

**Randy Uttley, Food Safety Officer
Agriculture Food Safety & Animal Health
WA Department of Agriculture
812 South Taft
Kennewick, WA 99336**

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

RAC Members

Bob Conley - USDA
USDA-FSIS-OFO-EP
5601 Sunnyside Avenue
Beltsville, MD 20705-5200

Alternate: **Ron Graham**

Dolph Diemont, Reg. Emerg. Transp. Rep (DOT)
13th Coast Guard District
915 2nd Avenue, Room 3408 (DET)
Seattle, WA 98174-1067

Alternate: **RADM Paul M. Blayney**

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

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

Kenneth Miles, Regional RAD Health REP
IHHS/PHS/FDA
Oakland Federal Bldg., Suite 1180N
Oakland, CA 94612-5217

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

Judy Tokarz-Hames, Emergency Mngr.
Department of Energy-RL A5-55
P.O. Box 550
Richland, WA 99352

Info Copies to:

Tom Andrews, Emerg. Resp. Coord.
Nuclear Regulatory Commission, RIV
611 Ryan Plaza Drive, Suite 400
Arlington, TX 76011-8064

Russell Salter, Director
Chemical & Radiological Prep. Division
PTE Directorate, FEMA HQ
Federal Center Plaza
500 C Street S.W.
Washington, DC 20472

TABLE OF CONTENTS

	Page
I. EXECUTIVE SUMMARY.....	1
II. INTRODUCTION.....	2
III. DRILL OVERVIEW.....	3
A. Plume Emergency Planning Zone Description.....	4
B. Drill Participants.....	4
IV. DRILL EVALUATION AND RESULTS.....	5
A. Status of Location or Function Evaluated.....	5
1. Washington Department of Health Laboratory.....	7
2. Food Control Point.....	10
3. Milk Sampling.....	12

APPENDICES

APPENDIX 1 - ACRONYMS AND ABBREVIATION.....	13
APPENDIX 2 - DRILL EVALUATORS AND TEAM LEADER.....	15
APPENDIX 3 - DRILL OBJECTIVES, EXTENT OF PLAY AGREEMENTS and DRILL SCENARIOS.....	16
Washington Laboratory Drill.....	18
Food Control Point and Milk Sampling Drill.....	31

I. EXECUTIVE SUMMARY

This report covers three out-of-sequence drills conducted on August 12, 1999, for Washington Nuclear Project No. 2 (WNP-2).

A Laboratory Drill was conducted to demonstrate the capability of the Washington State Department of Health (WA DOH) Public Health Laboratories to analyze environmental samples for the presence of radiation, in response to a radiological incident at WNP-2. This was the third WA DOH Laboratory Drill conducted for WNP-2. The two previous drills were March 16, 1995, and April 29, 1992.

A Milk Sampling Drill for WNP-2 was conducted at the Wm. Lewis Dairy, 3371 Taylor Flats Road, Pasco, Washington. This drill demonstrated the capability of the Washington State Department of Agriculture (WSDA) Food Safety Officer (FSO) to sample milk for radioiodine contamination at a dairy within the Emergency Planning Zone (EPZ) of WNP-2. Sampling is an important part of the process for preventing contaminated milk and other food products from reaching the public.

Participants in the Food Control Point (FCP) Drill for WNP-2 included the WSDA, Washington State National Guard, Franklin County Emergency Management and the Franklin County Sheriff's Office. This drill demonstrated the capability and resources necessary to provide a method of interdicting potentially contaminated agricultural products to prevent them from entering intrastate and interstate commerce. The process of interdicting agricultural products following a radiological emergency requires the identification of the area of suspected contamination, designation of enforceable boundaries, and declaration of an agricultural embargo for products originating in the area. Enforcement is administered through public information, contact with food processors and producers, and by the establishment of FCPs. Enforcement of the embargo was demonstrated with the establishment of a FCP at 6600 Burden Boulevard in Franklin County. The Franklin County Sheriff's Office and Washington National Guard demonstrated law enforcement procedures at the FCP. Traffic and access control for the FCP was demonstrated by the Franklin County Emergency Management staff, in substitute for Franklin County Public Works.

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

There were no Deficiencies identified or Areas Requiring Corrective Action (ARCAs) as a result of these out-of-sequence drills.

II. INTRODUCTION

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

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

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

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

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

The drills were conducted in accordance with the Extent of Play Agreements and Drill Scenarios.

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

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

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

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

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

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

Section IV, "Drill Evaluation and Results," presents detailed information on the demonstration of applicable drill objectives at each jurisdiction or functional entity evaluated in a jurisdiction-based format.

III. DRILL OVERVIEW

This section contains the basic information relevant to the August 12, 1999, drills which tested the offsite emergency response capabilities in the area surrounding WNP-2. This section of the drill report includes a description of the plume pathway EPZ, a listing of all participating jurisdictions and functional entities which were evaluated, as well as a tabular presentation of the time key exercise events and activities occurred.

Plume Emergency Planning Zone Description

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

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

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

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

The land use within the Benton County portion of the 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. Drill Participants

The following agencies, organizations, and units of government participated in the Washington State Department of Public Health Laboratories, Food Control Point, and Milk Sampling Drills, on August 12, 1999.

STATE OF WASHINGTON

Washington State Department of health, Division of Radiation Protection
Washington State Department of Health, Public Health Laboratories
Washington State Department of Agriculture
Washington National Guard

SUPPORT JURISDICTIONS

Franklin County Emergency Management
Franklin County Public Works functions performed by Franklin County EM
Franklin County Sheriff's Department

IV. DRILL EVALUATION AND RESULTS

Contained in this section are the results and findings of the evaluation of all jurisdictions and functional entities which participated in the August 12, 1999, drills. Their purpose was to test selected parts of the offsite emergency response capabilities of State and local governments in the 50-mile EPZ surrounding WNP-2.

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

A. Status of Jurisdictions Evaluated

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

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

- **Prior ARCAs – Resolved** – Descriptions of ARCAs assessed during previous drills that were resolved in this drill, and the corrective actions demonstrated.
- **Prior ARCAs – Unresolved** – Descriptions of ARCAs assessed during prior drills that were not resolved in this drill. Included is the reason the ARCA remains unresolved, and recommended corrective actions to be demonstrated before or during the next drill for these jurisdictions.

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

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

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

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

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

1. **WASHINGTON STATE PUBLIC HEALTH LABORATORIES DRILL.** This facility is located at 1610 N.E. 150th Street, Shoreline, Washington.
 - a. **MET: Objectives 3, 5, and 25**

LABORATORY LIAISON

With the help of an assistant, the Lab Liaison successfully demonstrated the ability to prioritize samples, track the progress of samples through the Laboratory, and report the results of the analyses. In accordance with the Extent of Play Agreement, the work area designated was ready for use prior to the start of the drill and the Lab Liaison and Lab Liaison Assistant were pre-positioned. A Control Cell was established to play their normal points of contact outside of the Laboratory including the Washington State EOC and the Emergency Operations Facility (EOF) at WNP-2.

The start of the drill was announced at 0900 over the Laboratory's public address system. At 0908, the Lab Liaison received a facsimile (FAX) (controller inject) with a map and description of the Food Control Boundary (FCB). The Assistant Lab Liaison immediately (and correctly) outlined the FCB on a WNP-2 EPZ map. At 0914, the Lab Liaison relayed a message to the Laboratory Emergency Response Coordinator (ERC) that the estimated time of arrival for the Washington State Patrol delivery of sample Batch #3 was within 15 minutes. (In accordance with the Extent of Play Agreement, sample Batches #1 and #2 were in the Laboratory at the start of the drill.)

The Lab Liaison effectively used the Laboratory's computer program that tracks each sample from receipt through release of the analysis, following quality assurance (QA). At 0936, the Liaison entered the priorities for analysis of the Batch #3 samples in the computer program and called the ERC to inform him the information had been entered. At 1020, the Liaison sent the analyses of the first two Batch #1 samples (soil and an air cartridge) to the EOC.

The Lab Liaison was careful not to release analyses results until they were signed-off by the QA Supervisor. In addition, the Lab Liaison alertly and skillfully resolved several issues including the confusion over the units of measure used for the samples (pCi/kg vs. pCi/liter) and missing information for milk samples.

EMERGENCY WORKER EXPOSURE CONTROL

The ability to measure Emergency Worker (EW) exposure was demonstrated by the staff at the WA State Public Health Laboratories. All staff that could come in contact with samples wore their normally issued Thermoluminescent dosimeters (TLDs). The areas of the facility where samples were handled and processed were ribboned-off to exclude any unauthorized personnel. The TLDs are routinely processed on a quarterly basis. Due to the low limits on sample radiation levels

allowed to enter the laboratory, the possibility of significant exposure to the workers is almost impossible. The response teams in the area of the incident are aware of these sample radiation limits, 2 mR/hr, and will not submit samples above the limits to the laboratory.

The plan specifies that area TLDs will be posted in various areas in and around the laboratory. According to the Extent of Play Agreement only a portion of the total number of TLDs were to be deployed; however, none were actually deployed during the demonstration due to the cost of processing. No adverse impact resulted from the lack of the deployment because each staff member wore his or her own TLD.

SAMPLE RECEIVING AREA

At 0909, a Washington State Patrolman arrived at the laboratory with environmental samples. The samples included grapes, soil, pears, grass, milk, an air sample cartridge, and an air sample filter. A sample receiving area had been staged at the Northwest entrance to the facility and set up as required by facility procedures and according to the Extent of Play Agreement. The receiving area preparations included a roped off sample receiving area, transportation routes to the sample storage and counting rooms, appropriate calibrated radiation detection instruments, supplies, and other equipment needed to safely transfer custody of the samples to the laboratory. A sample-receiving technician in radio contact with a Data Entry Clerk worked together to verify sample label data against the "Chain of Custody" form provided with the sample and with the data contained in the laboratory's sample management system database. This computerized sample management system effectively manages and tracks environmental samples from the time they are first received at the facility through to the point where the analytical results are approved and the samples themselves are archived. Despite some minor radio communication difficulties, this process worked well and assured that the chain of custody was maintained. A second technician assisted in the sample-receiving process by bagging and surveying the samples prior to carrying them into the environmental laboratory. Throughout the receiving process, the technicians used very good contamination control techniques and took great care to prevent cross contamination of the samples. After all samples had been processed through the receiving area, the technicians performed a direct frisk of the receiving area verifying that it had not been radiologically contaminated. Concurrently, the laboratory Radiation Safety Officer surveyed the Washington State Patrolman and his vehicle and then released the Patrolman and vehicle to return to duty.

SAMPLE PREPARATION ROOM

In accordance with the Extent of Play Agreement, the sample preparation room had been set-up as a Radiation Control Area (RCA) prior to the start of the demonstration. The two Technicians who actually processed the samples donned full anti-contamination clothing including gloves and shoe covers. The third Technician served as a data recorder and wore gloves and shoe covers. Samples were transported from the receiving area to the entrance of the room by the ERC. The samples were transferred to a receiving area within the sample preparation room, the Lab Liaison was contacted to verify if the preservative was to be added. Appropriate counting containers were prepared for each sample type in accordance with current procedures including obtaining a tare

weight. An aliquot of the blended samples was to await processing. Sample processing priority was established by the Lab Liaison and available via the computerized sample management system on the computer network. The data recorder indicated which samples were to be processed based on this priority. Samples of foods, soil, and forage were weighed to obtain the received weight. The samples were processed in a sample hood after verifying the information on the sample label. When required, an aliquot of the sample was processed in a blender in the hood. Addition of a preservative to the food samples was simulated. In the case of the milk sample placed into the counting container to the predetermined level, generally 100-ml. The filled container was capped and transferred to a clean plastic bag. The aliquot was weighed to determine the fraction of the as-received sample. The new bag was smeared and the smear was counted using a pancake GM probe. Labels on the instrument indicated that it was within its calibration period. The bag was marked with a "C" to indicate no external contamination was present. A hard copy of the relevant information and the sample were transferred to the counting room by the ERC. The unused portion of the samples were placed in clean containers, bagged in clean plastic bags, smeared, and placed on storage shelves to await transport to the intermediate storage location. The original sample label was bagged in a clean bag and saved so that any potential questions could be answered by referring to the original label. All activities were conducted using excellent contamination control processes. The sample preparation staff changed outer gloves frequently and cleaned the hood area and processing equipment between each sample. While the contamination control procedures demonstrated were excellent, the staff deviated from the established procedure in a minor way. As stated ER-SP-07 states that that the counting container should be weighed first and then be put into the clean bag (above, the counting container was placed in a clean plastic bag and then weighed. Step 13 of Procedure step 14). With this exception, the staff followed their procedures and demonstrated a truly professional approach to their tasks.

COUNTING ROOM

Prepared counting samples were delivered to the facility's radio-counting laboratory for analyses. The Lab Liaison prioritized the sample analyses and communicated this information to the counting room technician using the computer based sample management system. The Counting Room Technician verified that there was no change in the priority from that used by the sample preparation staff. The gamma spectral systems were subjected to daily energy response checks and were calibrated annually with mixed nuclide standards that were traceable to the NIST. The technician input critical nuclides and desired detection limits. Samples were routinely counted for 10-minutes. If none of the critical nuclides were detected at or above the detection limit, the sample was counted for an additional 10-minutes (20-minutes total). The technician verified the counting results and looked for unidentified peaks. Sample results were immediately presented to the laboratory QA Supervisor for review, independent verification, and approval. The sample analyses were performed in a timely manner using good contamination control processes.

QUALITY ASSURANCE AREA

The QA Supervisor carefully reviewed the laboratory reports. Only after this review were the results transferred to the Lab Liaison for use and transmission to the EOC or EOF. The first two samples from Batch #1 were approved by the QA Supervisor and released to the EOC by the Lab

Liaison at 1020. At 1103, the QA Supervisor reported that analyses of the remaining Batch #1 samples were ready for release and Batch #2 samples were undergoing QA. The drill ended at 1110.

SUMMARY AND CONCLUSIONS

The environmental laboratory's objective is to support a minimum throughput of 25 samples per 8-hour shift. Based on the performance observed during this exercise it is clear that the laboratory can meet and exceed that goal. The ERC provided excellent support to all functions and stepped in to assist staff when needed. The laboratory's well trained staff, coupled with the laboratory's quality facilities and well-designed sample management program, resulted in an outstanding demonstration.

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

2. FOOD CONTROL POINT DRILL

- a. **MET: Objectives 4, 5, 17, and 27**

The ability to establish a FCP to prevent the transportation of crops from areas of known or suspected contamination was demonstrated by WSDA and the FSO. Franklin County EM staff set-up roadblocks, signs, and etc., since Franklin County Department of Public Works was unable to participate in the drill. As indicated in the Extent of Play Agreement, the FCP was established at the TRAC facility parking lot in Franklin County. No traffic was actually stopped for the drill on public roads. According to procedure (Appendix 3 to Annex C of the WSDA Radiological and Chemical Emergency Procedures), the WSDA FSO is in charge at the FCP and is assisted by one or more law enforcement agencies. For this drill, law enforcement was provided by a Franklin County Sheriff's Officer. Members of the Washington National Guard were also present. Three vehicles were processed through the FCP and the drivers were interviewed. The FSO informed each driver carrying commercial quantities of produce that he needed to return with the produce to the point of origin. He gave each driver a copy of the blanket embargo as well as a copy of the booklet "*Radiological Emergency Information for Farmers, Food Processors and Distributors.*" There was also a sufficient quantity of specific embargo forms to be used if a driver refused to return to the point of origin. In this case, the FSO stated the product would be off-loaded or the entire vehicle would be impounded and a copy of the specific embargo form given to the driver.

The WSDA FSO gave an excellent briefing to Evaluators on his procedure requirements. Also, for the benefit of all participants, briefings regarding their drill procedures and responsibilities were given by the Sheriff's Deputy, the Washington National Guard Representative from Camp Murray, and Franklin County EM staff.

The FSO checked his dosimeter every 30 minutes and then simulated calling in the reading to the Field Coordination Office. Since all responders at the FCP had been issued EW Kits, a previous exercise issue (WA94-6) is closed.

WSDA and Franklin County Sheriff's Department staff demonstrated the capability to continuously monitor and control radiation exposure to Emergency Workers (EWs). The WSDA FSO and Franklin County Sheriff's Deputy were both issued an EW Kit which contained the following: one 0-20R self-reading dosimeter, one TLD badge, EW exposure form, one bottle of KI tablets and an instruction sheet. Documentation presented showed that a record was made of the TLD and self-reading dosimeter number assigned to each worker. The documentation provided by the WSDA FSO indicated his dosimeter had been inspected for electrical leakage on June 4, 1999. Emergency Workers were knowledgeable regarding how often to read their dosimetry (30 minute intervals), to whom to report readings, procedure for taking KI, and turn back and exposure limits (2.5 R and 5 R). At the end of their mission they stated they would turn in their dosimetry forms to the Dose Tracker at their assigned EW Center.

Since the Pasco Public Works staff could not participate in this exercise, due to a last-minute commitment, Franklin County EM staff members carried out these responsibilities, and demonstrated their capability and knowledge of their Traffic and Access Control Plans and Procedures.

All activities described in the demonstration criteria for Objectives 4, 5, 17, and 27 were carried out in accordance with the plan, unless deviations were provided for in the Extent-of-Play Agreement.

- b. **DEFICIENCY: NONE**
- c. **AREAS REQUIRING CORRECTIVE ACTION: NONE**
- d. **NOT DEMONSTRATED: NONE**
- e. **PRIOR ARCAs-RESOLVED: WA94-6**

Issue No. WA94-6

Description: EW Kits, which include dosimeters, were not issued to the FCP personnel as required by WSDA Radiological Response Procedures.

Recommendation: Purchase EW Kits for USDA staff.

Corrective Actions Demonstrated: All responders at the FCP had been issued EW Kits.

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

3. MILK SAMPLING PROCEDURE DRILL

a. MET: Objective 24

The use of equipment and procedures for collection and transportation of samples from areas that received deposition from an airborne plume was demonstrated by a WSDA FSO. The Extent of Play Agreement for the drill stated that one milk sample would be collected. The FSO received a briefing on the sample location from the FOC at the WSDA Field Coordination Office located at 502 Boeing Street, Pasco, Washington. After receiving an EW Kit and completing the dosimeter work sheets, the FSO drove to the location of the dairy where the sample was to be taken. All equipment specified in the procedure (Appendix 6 to Annex C of the WSDA Radiological and Chemical Emergency Procedures) was available and used by the FSO for taking the milk sample without deviation. After collecting the sample, the one-gallon container was placed in an insulated cooler packed with refrigerant and taken back to the Field Coordination Office for simulated transport to the State Public Health Laboratories in Seattle.

All activities described in the demonstration criteria for Objective 24 were carried out in accordance with the plan, unless deviations were provided for in the Extent of Play Agreement.

b. DEFICIENCY: NONE

c. AREAS REQUIRING CORRECTIVE ACTION: NONE

d. NOT DEMONSTRATED: NONE

e. PRIOR ARCAs-RESOLVED: NONE

f. PRIOR ARCAs-UNRESOLVED: NONE

APPENDIX 1 ACRONYMS AND ABBREVIATIONS

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

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

JIC	Joint Information Center
KI	Potassium Iodide
MSDS	Material Safety Data Sheet
MUDAC	Meteorological Unified Dose Assessment Center
NCP	National Contingency Plan
NIST	
NOUE	Notification of Unusual Event
NRC	U.S. Nuclear Regulatory Commission
NUREG-0654	NUREG-0654/FEMA-REP-1, Rev. 1, <i>"Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants," November 1980</i>
ORO	Offsite Response Organization
PAD	Protective Action Decision
PAG	Protective Action Guides
QA	Quality Assurance
R	Roentgen
RAC	Regional Assistance Committee
RCA	Radiation Control Area
RCW	Revised Code of Washington
REA	Radiation Emergency Area
REP	Radiological Emergency Preparedness
RERP	Radiological Emergency Response Plan
SAE	Site Area Emergency
TCP	Traffic Control Point
TLD	Thermoluminescent Dosimeter
UDAC	Unified Dose Assessment Center
USDOE-RL	United States Department of Energy, Richland
USDA	United States Department of Agriculture
Utility	Energy Northwest
WA	State of Washington
WNP-2	Washington Nuclear Project Number Two
WSDA	Washington State Department of Agriculture
WSDOT	Washington State Department of Transportation
WSP	Washington State Patrol -
WNP-2	Washington Nuclear Project No. 2

APPENDIX 2

DRILL TEAM LEADER AND EVALUATOR

The following personnel evaluated the Milk Sampling Procedure, Food Control Point/Traffic and Access Control and Washington State Laboratory Drills on August 12, 1999:

Joseph H. Keller, INEEL - Team Leader

Gerry Gibeault, INEEL - Evaluator

Larry E. Moore, FEMA Region X - Evaluator

Richard S. Converse, ARGONNE – Team Leader

Eleanor C. Castle, FEMA Region X – Evaluator

APPENDIX 3

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

This appendix lists the exercise objectives which were scheduled for demonstration in the WNP-2 three Drills held on August 12, 1999 (Washington State Public Health Laboratories/Milk Sampling/Food Control Point). The Extent-of-Play Agreements approved by FEMA Region X for the drills are also included in this appendix.

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

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

A. Drill Objectives

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

OBJECTIVE 3: DIRECTION AND CONTROL

Demonstrate the capability to direct and control emergency operations.

OBJECTIVE 4: COMMUNICATIONS

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

OBJECTIVE 5: EMERGENCY WORKER EXPOSURE CONTROL

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

OBJECTIVE 17: TRAFFIC AND ACCESS CONTROL

Demonstrate the organizational capability and resources necessary to control evacuation traffic flow and to control access to evacuated and sheltered areas.

OBJECTIVE 24 POST-EMERGENCY SAMPLING

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

OBJECTIVE 25: LABORATORY OPERATIONS:

Demonstrate laboratory operations and procedures for measuring and analyzing samples.

B. EXTENT OF PLAY AGREEMENTS AND SCENARIOS

The Extent of Play Agreements and Scenarios on the following pages were submitted by the State of Washington Departments of Health and Agriculture and Franklin County Emergency Management and were approved by FEMA Region X as indicated on the correspondence. The Extent of Play Agreements include any significant modification or change in the level of demonstration of each exercise objective listed in Subsection A of this appendix.



Federal Emergency Management Agency

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

COPY

June 4, 1999

Susan May, Head of Nuclear Safety
Division of Radiation Protection
Washington State Department of Health
P.O. Box 47827
Olympia, Washington 98504-7827

Subject: Washington State Laboratory Drill for WNP-2

Dear Susan:

We have reviewed the scenario package for the August 12, 1999, Washington State Laboratory Drill. The scenario package was delivered to us with Richard Cowley's letter of May 10, 1999.

We concur with the proposed exercise objectives, limitations, and extent-of-play. However, we have the following areas of concern with the scenario data and Laboratory Procedures.

Radiation Emergency Response Manual:

In general, this is an excellent document. It is very comprehensive and contains easy to follow procedures and discussions. However, we have identified two Plan Issues. Although these Issues do not necessarily need to be resolved prior to the Drill, we wanted to raise them now for your consideration and further discussion.

1. On page 1-4 under Preparation, there is a statement that "...the laboratory can expect 24 hours notice prior to the arrival of samples." FEMA REP-14 specifies that the laboratory should be capable of analyzing samples collected under Objective 8 - particulate filters and iodine cartridges and Objective 24 - soil, water, and vegetation, etc. While there are quick and somewhat less accurate methods to analyze the iodine cartridges in the field, the analysis of the particulate filter (an indication of the potential exposure from inhalation) can not be accomplished in the field. For unmonitored releases, this information on potential inhalation doses is critical for plume decision-makers. FEMA REP-2, Rev.2 states (page 4-23) that "...field samples should be transported to a laboratory within approximately four hours of the time of collection." Further, the same document, while discussing gamma spectral instrumentation, states (pages 6-21) that "...laboratory instrumentation of this type should be available for offsite monitoring within 10 hours after the start of the accident." The exact time that the State laboratory might receive samples is open to some question. However, planning on 24-hour lead-time is not adequate.

COPY

2. The matrix on page D-3 is not clear. The "normal LLD" and "1-Min. LLD" are not given for several of the various sample types. Also, the Washington DIL values are not shown for several of the sample types. It should be noted that the Federal DIL values are not in accordance with the current Federal policy (new FDA PAGs with corresponding new DILs).

Scenario Data for the 1999 Washington State Laboratory Exercise:

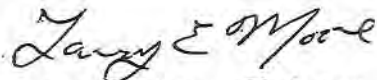
1. There are no units on any of the results shown on the data sheets. There is also no indication of the time and date for which the analysis values are valid.
2. The data sheets and the Chain-of-Custody sheets do not agree with regard to the location at which the samples were taken.
3. The data sheets contain numerous citations giving values for Sr-89 and Sr-90. The Laboratory Procedures Manual indicates in various Sr procedures that after chemical separations one to two weeks are allowed for Y-90 in growth. Clearly Sr-89 and Sr-90 results are inappropriate at the time of the demonstration and should be deleted from the data sheets.
4. None of the Chain-of-Custody sheets contain critical information with regard to the milk samples. There is no information on the feeding protocols for the dairy herd at the sample location or volumes in the milk tank from which the sample was taken. The latter should include information on volumes of milk in the tank prior to potential contamination and volumes of milk added after potential contamination. Based on the scenario information, the release occurred on the evening of the 10th and the first milk samples were taken on the morning of the 11th. Therefore, batch 1 samples could contain one milking with potential contamination and samples from batches 2-4 could contain more than one milking with potential contamination. This type of information and the related volumes are normally recorded for dairy holding tanks and are obviously critical to arriving at the appropriate conclusions from the analysis.
5. The Laboratory Manual specifies which nuclides will be reported for emergency samples. There is a minimal list for all samples and an augmented list only if requested by the Laboratory Liaison. There is no indication in the scenario or on the Chain-of-Custody forms that such a request had been made. The data sheets should be revised to be compatible with the Laboratory Procedures, i.e., only report results for the nuclides specified in the Laboratory Manual.
6. There is no indication on the Chain-of-Custody forms as to the count time desired. The Laboratory uses either a 1-minute or 10-minute count. As I read the procedures, the requester (Laboratory Liaison) must specify which count is desired.

7. Many of the values on the data sheets are well below the detection limits specified in the Laboratory Manual. All data should be revised to be in accordance with the LLDs for the appropriate sample type and count time. (See comment A-3 above.)
8. The values reported for the air samples are highly questionable. Resuspension from arid areas has been shown to be on the order of 0.0001 while resuspension from vegetated areas is about two orders of magnitude lower. The results presented would indicate resuspension values several orders of magnitude above any observed data. Since there is limited play in the demonstration, and there are no decision-makers participating, there should be no adverse impact. However, the numbers are very unrealistic.

The scenario package, when modified in accordance with the above comments, should be adequate to drive a demonstration of the capabilities of the laboratory.

We need to work together to resolve these concerns as soon as possible. Unfortunately, I will be out of the office the next two week, returning June 21. In the mean time, feel free to call Eleanor Castle at (425) 487-4697 or Joe Keller of INEEL, who completed the technical review of the scenario package for us. Joe's telephone number is (208) 526-9391.

Sincerely,



Larry E. Moore, Chairman
Regional Assistance Committee

cc: Mark Henry, WA DOH
Tim Messersmith, SS
Mary Alice Peterson, WA EM
George Hilton, Radiation Lab
Mike Mills, EFSEC
Deborah Mauldin, FEMA HQ, PT-EX-RG
Joe Keller, INEEL

COPY



STATE OF WASHINGTON
DEPARTMENT OF HEALTH
DIVISION OF RADIATION PROTECTION

Airustrial Center, Bldg. 5 • P.O. Box 47827 • Olympia, Washington 98504-7827

July 9, 1999

Larry Moore
FEMA Region X
Federal Regional Center
130 228th St. SW
Bothell, WA 98021-9796

RECEIVED

JUL 13 1999

FEMA - REGION X

Larry
Dear Mr. Moore:

Enclosed are 4 copies of the revised scenario package for the 1999 Washington State Laboratory Exercise. Besides the revisions made in response to your comments on the original package, a couple of additional revisions were made in accordance with our telephone conversation earlier this week. These include: reduction in the number of samples in each of the four batches (still maintaining at least one sample of each media type), revision of the time-line to start the player briefing at 8:30 instead of 8:00, and revising the overall accident scenario to begin 24-hours earlier to allow more realistic times for transport of samples to the laboratory. Additionally, I delayed the arrival of the Batch 3 samples by 10 minutes (now 00:30 drill-time) to allow the receiving area staff more time to complete dressout prior to the arrival of the samples.

Please remove the contents of the previous scenario packages and replace them, in their entirety, with the enclosed packages.

Also enclosed in this submittal are four copies of the revisions to the Radiation Laboratory Emergency Response Procedures (pages 1-3/1-4) in response to your comments. Please replace this sheet in the manuals previously provided to FEMA.

Please contact me at (360) 236-3272 if there are any additional comments or concerns. We appreciate your willingness to work with us on this exercise and are looking forward to your evaluation of our laboratory's performance.

Sincerely,

Richard Cowley
Richard Cowley

cc w/o: Susan May, DOH
Mark Henry, DOH
George Hilton, Radiation Lab
Tim Messersmith, WNP-2

COPY

Chain of Command

A modified chain of command will be in effect during an emergency response. Ultimate responsibility and authority for laboratory operations remains with the Laboratory Deputy Director or designee. Responsibility and authority for radiation safety rests with the Radiation Safety Officer or designee. Within the scope of these provisions the operational chain of command is as follows.

1. Radiation Safety Officer.
2. Office Director.
3. Emergency Response Coordinator (ERC).
4. Shift Supervisor.
5. Laboratory staff.

The ERC will serve as the point of contact between laboratory work areas and the Laboratory Liaison. Laboratory staff in all work areas will report their progress and address needs and problems to the ERC.

The Shift Supervisor will maintain appropriate staffing levels in each work area based on workload. The Office Director or designee may call additional staff members in, or relieve staff from duty.

Chemists are responsible for performing the work with the support of technical and clerical staff.

COPY

WASHINGTON STATE LABORATORY EXERCISE '99

TABLE OF CONTENTS

OBJECTIVES AND LIMITATIONS	1
EXTENT OF PLAY.....	2
PLAYER BRIEFING SHEET.....	3
PLAYER INFORMATION SHEET	5
TIMELINE***	6
CONTROLLER INJECTS / MESSAGES***.....	7

ATTACHMENTS

EXERCISE DATASHEETS

MAPS

FOOD CONTROL AREA -

SAMPLE LOCATIONS - Batch 1 *** (locations will have been plotted by controllers)

SAMPLE LOCATIONS - Batch 2 *** (locations will have been plotted by controllers)

SAMPLE LOCATIONS - Batch 3 ***

SAMPLE LOCATIONS - Batch 4 ***

SAMPLE DATA

BATCH 1

Chain of Custody with DBID #s (Data Base ID) (DBIDs will be provided later when available)

*Sample information and analysis data will be available prior to exercise.

BATCH 2

Chain of Custody with DBID #s (DBIDs will be provided later when available)

*Sample information and analysis data will be available prior to exercise.

BATCH 3

Chain of Custody with DBID #s (DBIDs will be provided later when available)

*Sample information and analysis data will be available prior to exercise.

BATCH 4

Chain of Custody w/o DBID #s

NOTE: Items is **BOLD** followed by *** are **CONTROLLER USE ONLY!! NOT FOR RELEASE TO PLAYERS**. Other items may be released to players at the appropriate time during the play of the exercise only!

OBJECTIVES AND LIMITATIONS

- Objective 3:** Demonstrate the capability to direct and control emergency operations. (Lab Liaison)
- Limitations:** None
- Objective 5:** Demonstrate the capability to continuously monitor and control radiation exposure to emergency workers.
- Limitations:** TLD locations will be limited to the following locations:
1 in room E-45, Gamma Count Room
2 in room E-20, Sample Prep Room
1 @ Secretary's desk opposite of room E-20
1 outside of the window of room E-69, Hot Storage Room
- Objective 25:** Demonstrate laboratory operations and procedures for measuring and analyzing samples.
- Limitations:**
- a) No "spiked" samples will be analyzed
 - b) The set up of the "Hot Sample Storage" room will not be done as per procedures. The room will not be emptied of its present contents and shelving will not be erected. The staff will not cover the floor as per procedures. This room is presently being used as an office.
 - c) Staff will not cover the shelves in the "Sample Prep" room as per procedures.
 - d) Pre-operational area spot surveys on restricted access areas will not be demonstrated.
 - e) In the event of a real emergency, office furniture would be removed and these rooms would be prepared as per procedures.

EXTENT OF PLAY

The laboratory staff will have set up the lab (contamination control, access control, and communications) prior to the start of the exercise.

A control cell will perform the functions of the State EOC and the facility's EOF.

Start of play will be announced by the controllers and will continue until the evaluators have determined that the evaluation team has observed enough activities at each station to adequately evaluate the laboratory's capabilities.

In the event of an actual emergency, all play will cease until the actual emergency has been taken care of. Play may then recommence or be terminated at the discretion of the lead evaluator.

Laboratory data will be pre-entered and stored in the computer by controllers in a developmental database. **No data will be entered into the lab's operational database!**

Phone and fax numbers for the control cell will be determined prior to the date of the exercise.

PLAYER BRIEFING SHEET

Today is August 12, 1999.

In the evening of August 9, Washington Public Power Supply System's Nuclear Plant 2 (WNP-2) experienced an emergency situation. The plant declared a General Emergency when protection systems failed to operate properly. The reactor core suffered some minor damage and radioactive material was released to the environment from the plant's damaged safety systems. The plant released radioactive material for about 1 hour before the release was terminated and the plant was returned to a safe shutdown condition.

An evacuation of the 10-mile EPZ in Franklin County was initiated prior to the onset of the release. The plume deposition was not significant enough to warrant the establishment of a Relocation Area however; a Food Control Area out to approximately 20 miles ESE of WNP-2 was developed.

Meteorological data at the time of the release:

Temperature - 80°
Wind Speed - 4 mph
Wind Direction - WNW - ESE (282° - 102°)
Stability Class - E
Precipitation - none

Meteorological data at present time:

Temperature - 90°
Wind Speed - 2 mph
Wind Direction - W - E (265° - 85°)
Stability Class - C
Precipitation - none

All evacuated persons have been permitted to return to their homes. All transportation corridors, including the Columbia River have been reopened.

PLAYER BRIFING SHEET (cont)**FOOD CONTROL**

A Food Control Area has been established to prevent the movement of contaminated food crops out of the area.

The West Boundary is described as

The Columbia River from the Ringold Waterway on the North to Rankin Canyon on the South.

The North Boundary is described as:

From the Columbia River northeastward along the Ringold Waterway to Glenwood Drive. Northeast on Glenwood Drive to Ringold Road. Southeast then east on Ringold Road to Glade North Road. Southeast on Glade North Road to Eltopia Road. East on Eltopia Road through Eltopia to US 395. Across US 395 east on Blackman Ridge Road to its end.

The South Boundary is described as:

From the Columbia River southeast along Rankin Canyon. Northeast on Cottonwood Drive to West Dogwood Road. East on West Dogwood Road to North Dayton Road. South on North Dayton Road to Cedar Road. East on Cedar Road to Ione Road. South on Ione Road to Sagemoor Road. Southeast on Sagemoor Road across US 395 to the end of East Sagemoor Road.

The East Boundary is described as:

A line from the east end of Blackman Ridge Road on the North to the east end of East Sagemoor Road on the South.

PLAYER INFORMATION SHEET

Lab Liaison phone numbers: room Q-20

Lab Liaison 361-4491

Fax 361-4995

EOF and EOC Control Cell numbers: room (to be determined)

Control Cell (to be determined)

Fax (to be determined)

Arm Bands

Red - controllers

Green - evaluator

Blue - observer

(controller use only)

TIMELINE

(controller use only)

<u>REAL TIME</u>	<u>DRILL TIME</u>	<u>EVENT</u>
08:30	-0:30	Players Briefing
09:00	00:00	<p>The start of the exercise will be announced over the public address system.</p> <p><u>Batch 1</u> - Chain of Custody and sample results available to Lab Liaison. Locations plotted by controller.</p> <p><u>Batch 2</u> - Chain of Custody to Lab Liaison, locations plotted by controller.</p> <p>Samples status - all samples have been received. Samples WA2-990811-007 and -008 have been prepped and are in correct geometry ready for counting. The remaining samples need to be prepared for counting.</p> <p><u>Batch 3</u> - Chain of Custody to Lab Liaison, locations not yet plotted.</p> <p>WSP calls Lab Liaison to notify of arrival in about 30 minutes</p>
09:30	00:30	WSP arrives with Batch 3 samples
10:00	01:00	Batch 4 "Chain of Custody" sheet transmitted to Lab Liaison for processing.
??	??	<p>Termination of play.</p> <p>Critique / Hotwash.</p>

(controller use only)

CONTROLLER INJECTS / MESSAGES

(controller use only)

DRILL TIMEMESSAGE

00:00

WSP trooper carrying Batch 3 samples contacts Lab Liaison to inform them that they will be arriving at the lab in about 30 minutes. Trooper should ask for directions on how to get to the receiving area.

01:00

Field Team captain faxes the Batch 4 "Chain of Custody" sheet to the Lab Liaison.

As desired

Control Cell - State Radiation Health Physicist in the State EOC calls to get results of lab analysis. Asks if anything has been found that exceeds the State's Derived Intervention Levels (DILs)? If so, what locations exceed DILs?



Federal Emergency Management Agency

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

COPY

June 4 1999

MEMORANDUM FOR: James Wood, Emergency Management Coordinator
Operations Division, Washington State DOA

John R. Scheer, Director
Franklin County Emergency Management

SUBJECT: WNP-2 Food Control/Access Control Point Demonstration

This will acknowledge receipt on May 18 of your drill packages for the August 12, 1999, Food Control Point exercise involving Franklin County Sheriff's Office and Franklin County Public Works in support of the Washington State Department of Agriculture.

The proposed objectives, limitations, extent-of-play, timeline and response procedures have been reviewed. These out-of-sequence demonstrations will be evaluated in accordance with your submittals.

We will have two Evaluators for this drill, one being Eleanor Castle. They will be staying at the Richland DoubleTree Inn.

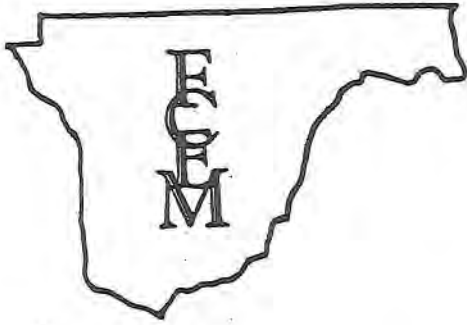
Should you have any questions, please feel free to call me (425-487-4743).

Sincerely,

Larry E. Moore, Chairman
Regional Assistance Committee

cc: Vanessa Quinn, PT-EX-RG, FEMA HQ
Deborah Mauldin, PT-EX-RG, FEMA HQ
Joseph H. Keller, INEEL
Tim Messersmith/Fred Klauss, SS
Maillian Uphaus/Mary Alice Peterson/WA EM
Susan May/Mark Henry, WA DOH
Mike Mills, EFSEC

COPY



FRANKLIN COUNTY

EMERGENCY MANAGEMENT

502 Boeing Street
Pasco, WA 99301
(509) 545-3546 Fax: (509) 545-2139

May 17, 1999

Mr. Larry Moore
FEMA Region X
Federal Regional Center
130 228th St SW
Bothell, WA 98021-7996

Dear Mr. Moore,

This letter is to confirm the date for the evaluated Food Control Point exercise involving Franklin County Sheriffs Office and Franklin County Public Works in support of the Washington State Department of Agriculture (WSDA) on August 12, 1999.

This is a "Stand Alone" demonstration of the Objectives listed below. Activation of the Franklin County Emergency Operations Center will be simulated.

OBJECTIVES:

This evaluation is requested to be limited to demonstrating the following Objectives and Criteria from NUREG-0654/FEMA REP-1 and REP-14/15.

OBJECTIVE 4: Criteria 1 and 2 (REP-14) and Points of Review 4.1 – 4.6

LIMITATIONS: Communications will be described via interview with FCP Staff.

COPY

OBJECTIVE 5: Criteria 1, 2, and 4 (REP-14) and Points of Review 5.1 – 5.11, 5.13, and 5.14 (REP-15).

LIMITATIONS: Food Control/Access Control Point Staff will be pre-Positioned with Emergency Worker Kits. The FCP Staffs knowledge of their procedures for using and obtaining the Emergency Worker kits will be demonstrated Via interview. KI will be issued, but NOT taken.

OBJECTIVE 17: Criteria 2 and 5 (REP-14) and Points of Review 17.4, 17.6, 17.8, 17.9, 17.14, and 17.15 (REP-15).

LIMITATIONS: Participants will be pre-positioned.

DISCUSSION:

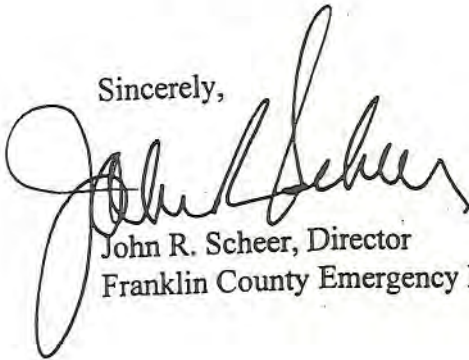
Demonstration of Objective 17 will take place within the context of a Food Control Point (FCP). Franklin County Agencies will be SUPPORTING the WSDA. Franklin County Sheriffs Office and Public Works personnel will be pre-positioned. The Traffic Control Portion of this Exercise will be in place. Franklin County Personnel will act at the direction of the WSDA Representative in charge of the Food Control Point. There will be NO stopping of actual traffic. The FCP will be established at an area designed to simulate a portion of roadway, with the appropriate signs and support facilities actually being present. No more than 5 vehicles will be used to exercise the FCP.

Franklin County Emergency Management has requested support from the Washington Army National Guard. As FCPs are established during the Ingestion/Re-Entry and Recovery phase of a radiological emergency, it is realistic to expect support from the National Guard to provide around the clock staffing at the FCPs. If the WARNG is unable to support this request, the exercise will continue without those personnel being present.

In the event that a “real life” mission requires Franklin County Sheriffs Office personnel to leave the FCP Exercise, the evaluation will be halted. Controllers and Evaluators will confer to determine whether to continue the demonstration or postpone it.

If you have comments, questions, or suggestions please call Tom Rogers at Franklin County Emergency Management.

Sincerely,

A handwritten signature in black ink, appearing to read "John R. Scheer". The signature is fluid and cursive, with a large initial "J" and "S".

John R. Scheer, Director
Franklin County Emergency Management

Attachments:

Draft of Franklin County Sheriffs Office FCP SOP
Extract from "Standards for Work Zone Traffic Control" used by Franklin County Public Works

FACSIMILE COVER LETTER

COPY

Date: 5/13/99 Total number of pages including this page: 8

To: Larry Moore
RAC Chairman
FEMA Region X

From: James Wood
Washington State Department of Agriculture
Operations Division
1111 Washington Street
PO Box 42560
Olympia WA 98504-2560

Phone: (360) 902-2055
FAX: (360) 902-2092

RE: Drill Package for August, 1999 Food Control Point Drill

Comments:

Here is part of the drill package for the August, 1999 Food Control Point Exercise. Tom Rogers is FAXing you the Franklin County specific part.

Tom and I will both bring original copies to the May 18th Joint Planning Committee meeting, as well as the appropriate attachments. We wanted to get these copies to you by the May 14 deadline.

COPY

**Washington Department of Agriculture
Washington National Guard
Franklin County Emergency Management
Franklin County Public Works
Franklin County Sheriff's Office**

Food Control Point Demonstration for Evaluation and Grade

1. INTRODUCTION

There are two principal radiological hazards having possible effects within the boundaries of Benton and Franklin Counties, Washington. They are the DOE-RL and contractors Hanford site clean-up and research operations relating to former plutonium production and extraction and the WNP-2 boiling water commercial nuclear power reactor operated by Energy Northwest within the boundaries of the Hanford site. As part of their individual Emergency Management programs, Benton and Franklin counties maintain Radiological Emergency Preparedness Plans for both radiological hazards. The Washington Military Department, Washington State Department of Agriculture (WSDA), Washington Department of Health (DOH), Washington State Patrol (WSP) and Washington Department of Transportation (WSDOT) have also established Emergency Procedures for response to the same radiological hazards as the two counties. Those radiological emergency procedures provide a method of interdicting potentially contaminated agricultural products to prevent them from entering intrastate and interstate commerce.

The process of interdicting agricultural products following a radiological emergency requires the identification of an area of suspected contamination, declaration of enforceable boundaries for the identified area, declaration of an agricultural embargo for products originating in the area and enforcement of the embargo through public information, contact with food processors and producers, and by the establishment of Food Control Points.

There are six essential tasks to be performed prior to establishing a Food Control Point in response to an emergency at the WNP-2 commercial nuclear power plant that releases a radioactive plume:

A Proclamation of Emergency with appropriate wording to authorize food control activities is issued by the Governor of Washington State.

Field Monitoring Teams from the Washington State Department of Health and other agencies provide information regarding radiation measurements from deposition of nuclides to the Meteorological Unified Dose Assessment Center (MUDAC).

MUDAC uses approved techniques to analyze the data provided by the field teams to identify areas where the radiation exposure rate from deposited nuclides potentially exceeds 2-microR/H and communicates that information to the affected county Emergency Operations Centers.

The affected counties identify geo-political boundaries and Food Control Points based on the areas of deposition identified by MUDAC personnel and then relay these boundaries to the Washington State Emergency Operations Center.

The State of Washington declares the Food Control Area, orders the embargo of agricultural products originating from within that area, and provides the necessary legal documentation to the agencies participating in the enforcement of the embargo.

The agencies participating in the enforcement of the embargo dispatch personnel with appropriate documentation to the identified Food Control Points to interdict agricultural products being transported in violation of the embargo.

The agencies identified in the heading of this document request an out-of-sequence demonstrations of a Food/Access Control Point and collection of a milk sample. Franklin County WSDA request WNP-2 Exercise credit for the REP Program exercise objectives related to the demonstrations

For the purposes of this demonstration, the TRAC facility at 6600 Burden Boulevard in Franklin County (Intersection of Road 68 and Burden Blvd.) will be designated as an appropriate location for a Food Control Point to prevent agricultural products from leaving the declared Food Control Area. In addition, one radiological milk sample will be taken at William Lewis Dairy at 3371 Taylor Flats Rd. in Pasco prior to the Food Control Point Demonstration.

2. BASIS FOR DEMONSTRATION

Procedures adopted by Benton and Franklin Counties as part of their Radiological Preparedness Plans and procedures adopted by the Washington State Department of Agriculture are intended to prevent radiologically contaminated agricultural products from entering domestic and foreign markets. The interdiction of contaminated agricultural products is accomplished by identifying an area(s) of suspected radioactive deposition, ordering a blanket embargo of agricultural within the area, and preventing the products from entering commerce by establishing food control points to inspect vehicles for contraband.

For this demonstration it shall be assumed that:

Washington Public Power Supply System has declared a General Emergency at the WNP-2 nuclear power plant due to the release of a radioactive plume.

The Governor of the State of Washington has issued an Emergency Proclamation authorizing the establishment of Food Control Areas as necessary.

Field monitoring teams from the Washington State Department of Health and other agencies have provided necessary measurements to the Meteorological Unified Dose Assessment Center (MUDAC).

MUDAC has analyzed the data provided by the field teams and identified areas where the radiation exposure rate from the deposition of radionuclides potentially exceeds 2 microR/H and has communicated that information to the affected county Emergency Operations Center(s).

The affected counties have identified geo-political boundaries and Food Control Points based on the areas of deposition identified by MUDAC personnel and have relayed those boundaries and points to the Washington State Emergency Operations Center.

The State of Washington has declared the Food Control Area, ordered the embargo of agricultural products originating from within that area and provided the necessary legal documentation to the Washington State Department of Agriculture and Benton and Franklin Counties.

That the TRAC facility at 6600 Burden Boulevard in Franklin County is an appropriate location for a Food Control Point preventing agricultural products from leaving the declared Food Control Area.

The applicable sections of the Franklin County Radiological Emergency Preparedness Plan includes the performance of the following procedures:

- IP O-0 Operations Coordinator
- IP D-4 Elected Sheriff Actions
- IP O-5 Franklin County Public Works

The applicable sections of the Department of Agriculture Emergency Preparedness Plan includes the performance of the following procedures:

- WSDA Radiological and Chemical Emergency Procedures: WNP-2 Emergency Procedures for Site area or General Emergency Classification; Checklist for Field/Food Control Point Workers.
- WSDA Radiological and Chemical Emergency Procedures: Annex C – Food Safety Officer Procedures.

3. OBJECTIVES & LIMITATIONS

The activities to be evaluated on August 12, 1999 will be limited to WSDA's demonstration of a Food Control Point with the related Access Control demonstrated by Franklin County and, if possible, supported by the Washington National Guard. WSDA will also demonstrate the collection of a milk sample for FEMA evaluation. These out-of-sequence demonstrations are intended to satisfy the portions of the WNP-2 Biennial Exercise requirements for WSDA and Franklin County.

FEMA's evaluation will be limited to the following criteria from FEMA REP 14 and REP 15.

Objective 4: Communications

Criterion 1 & 2 and

Points of Review 4.1, 4.2, 4.3, 4.4, 4.5 & 4.6, as they are applicable to communications with the staff at the Food/Access Control Point.

Objective 5: Emergency Worker Exposure Control

Criteria 1, 2, & 4 and

Points of Review 5.1-5.11, 5.13 & 5.14, as they are applicable to staff at the Food/Access Control Point.

Limitations: Food/Access Control Point staff will be pre-positioned with Emergency Worker Kits, which include dosimeters. The staffs' knowledge of their procedures for obtaining the kits will be demonstrated by interview. Ingestion of KI will not be demonstrated.

Open Issue: ARCA WA-94-6, Emergency Worker Kits, which include dosimeters, were not issued to FCP personnel, as required for emergency workers.

Demonstration: WSDA procedures have been revised and corrective action will be demonstrated during this drill.

Objective 17: Traffic and Access Control

Criteria 2 & 5 and

Points of Review 17.4, 17.6, 17.8, 17.9, 17.14 and 17.15, as they apply to the one Access Control Point to be established in conjunction with the FCP. (Franklin County and other applicable response organizations will demonstrate this Objective again in the WNP-2 Plume and Ingestion Exercise, September 12-13, 2000. However, field play will not be evaluated for Franklin County and may be simulated.)

Limitations: Participants will be pre-positioned.

Objective 24: Post Emergency Sampling

Criteria 1 & 3 and

Points of Review 24.1-24.11, 24.13 & 24.14, as they are applicable to collection of milk samples. (WA DOH Field Teams will demonstrate sampling of crops, produce, etc. in the WNP-2 Plume and Ingestion Exercise, September 12-13, 2000.)

Limitations: Only one milk sample will be collected.

Objective 27: Ingestion Exposure Pathway - Protective Action Implementations

Criterion 3 & 4 and

Points of Review 27.3, 27.4, 27.6, 27.7, as they are applicable to staff at the Food/Access Control Point.

Limitations: Participants will be pre-positioned and only vehicles participating in the exercise will be contacted. The intersection will be simulated in the TRAC parking lot, and no traffic will be stopped on public roads. WSDA staff will demonstrate Food Control Point procedures at a single Food Control Point.

4. EXTENT OF PLAY

Department of agriculture personnel shall be dispatched from the Franklin County Field Office to perform milk sampling and their work at the Food Control Point. Franklin County Sheriff and Public Works personnel shall be dispatched by their office representatives at the Franklin County EOC. The milk sampling will be done first, with the Food control Point demonstration following.

The Franklin County Sheriff's Deputy assigned to the Food Control Point shall establish a simulated road block at the TRAC facility at 6600 Burden Boulevard in Franklin County in such a manner as to prevent traffic from leaving the Food Control Area without stopping for inspection by the Department of Agriculture employee.

The Franklin County Public Works employee(s) assigned to assist in establishing the Food Control Point shall be responsible for explaining the placement of appropriate temporary road signs to alert traffic to the roadblock ahead and the presence of the Sheriff's Deputy and Agricultural Inspector.

For the purposes of the demonstration, the Sheriff's Deputy shall not flag down and stop any traffic approaching the Food Control Point. Only vehicles participating in the exercise will be stopped. The Agricultural Inspector will provide the driver of the stopped vehicles with an exercise General Embargo form and a Radiological Emergency Information for Farmers, Food Processors and Distributors pamphlet.

The length of the demonstration shall be limited to the period of time necessary to allow the evaluator to observe the arrival of the dispatched personnel, observe the placement of the signs and setup of the Food Control Point, and allow the evaluator to interview the personnel assigned to the demonstration. Road traffic shall not be impeded. The demonstration shall be terminated when the evaluator has finished any necessary interviews. The demonstration shall be terminated in the event of an actual emergency requiring the services of any of the personnel elsewhere.

5. TIMELINE

Elapsed Time Milk Sampling

- 00:00 Evaluator and Food Safety Officer Leave Franklin County EOC.
- 00:15 Arrive at Dairy.
- 00:25 Begin milk sampling procedure.
- 00:45 Complete milk sample procedure.
- 01:00 Depart for Food Control Point

Elapsed Time Food Control Point

- 00:00 Food Safety Officer and Evaluator arrive at Food Control Point.
- 00:05 Controller initiates play at the Food Control Point.
- 00:15 Approximate time participants on scene.
- 00:45 Approximate time Control Point established and active.
- 01:00 Approximate time demonstration is completed.

6. ATTACHMENTS

Franklin County REP Emergency Procedures:

- IP O-0 Operations Coordinator
- IP D-4 Elected Sheriff Actions
- IP O-5 Franklin County Public Works

Washington State REP Procedures:

Field/Food Control Point Workers checklist for Site Are or General Emergency Classification

Annex C: Food Safety Officer Procedures

7. ADDITIONAL INFORMATION

If the evaluator needs additional information or has any questions, please contact James Wood at 360-902-2055 or Tom Rogers at 509-545-3546.