

50-322-06-5

5/18/87

DOCKETED
USNRC

A-15 U

'87 AUG 20 P6:05

RADIOLOGICAL EMERGENCY
PREPAREDNESS EXERCISE
OBSERVATIONS AND EVALUATIONS

EMERGENCY WORKER DECONTAMINATION MODULE

OBSERVER DATAFacility: EUDOFDate: 12-2-86Specific Assignment: Controller

Team Leader: _____

Name: _____

Organization: IMPELL CORP.Title: JR. TECH. SPECIALIST

Business Address: _____

Business Phone: _____

NUCLEAR REGULATORY COMMISSION

Docket No. 50-377-D6-5 Official Exh. No. 154
In the matter of Shoreham Nuclear Power Station Unit 1

Staff _____ IDENTIFIED /
Applicant / RECEIVED _____
Intervenor _____ REJECTED _____
Cont'g Off'r _____
Contractor _____ DATE 5-18-87
Other _____ Witness _____
Reporter Mary Simons

INSTRUCTIONS

Introduction

This form is intended as a tool for the observer to use in observing and evaluating an exercise. There are several different "modules" corresponding to different observer assignments; an observer assigned to the EOC should have the "EOC Module", an observer assigned to the Emergency News Center should have the "Emergency News Center Module", and so on. The module you have should correspond to your assignment.

You should bring the form along with you when you go to observe. The questions in it will serve as a useful guide concerning what to look for. You may wish to fill out some or all of the questions while on location. NOTE: Some responses may already be marked as N/A because the activity is rated under another part of the response organization.

Directly below is a short explanation of what is in the form and how to fill it out; please read this explanation as soon as possible.

Concept of Form and Instructions for Use

- (1) Structure and Format. Each module is composed of several sections. Each section is about a particular part of the emergency activities - for example, "equipment," "communications," or "dose assessment." Each section has two parts. The first part is a series of questions for you to rate the performance. The second part is a summary section, with space to write a narrative essay summarizing your overall impressions.
- (2) Rating Questions. You have four options when answering these questions: Satisfactory, Unsatisfactory, N/A, and N/O.
 - o "Satisfactory" means that personnel and equipment performed at an acceptable level. Errors noted were not severe and the task was completed in an acceptable manner. For example, if personnel are to check their dosimeters once every 15 minutes, but the person you are observing checks his dosimeter only 7 of the 8 times he should in 2 hours, his performance is satisfactory. However, your narrative summary should explain the rating.
 - o "Unsatisfactory" means that personnel and equipment generally performed below an acceptable level. There were deficiencies of a significant nature. The area's ability to carry out its function was significantly impaired.

- o "N/A" stands for "not applicable." For example, if the personnel observed did not have dosimeters, then the question, "were their dosimeters properly zeroed or checked?" should be "not applicable". In some cases, a whole section may be not applicable. For example, if you will be observing a local EOC, most likely the section (in your EOC module) on "Media Relations" will not be applicable, since media relations are conducted at another facility.
 - o "N/O" stand for "not observed"; meaning you do not know or cannot judge whether the activity was done properly. If something should have been done (or should have been there) but wasn't, then you should mark "unsatisfactory".
- (3) Short answer questions. These are generally self-explanatory. Most are informational, asking you to list the participants at your location, or to describe a certain procedure observed, etc. Some call for you to record a specific event, e.g. who made a certain phone call, or when someone arrived. Be alert for these events.
- (4) Summary. On the summary page, you should write a brief essay (one paragraph to one page) to describe and evaluate the activities and resources covered by that section. Describe the resources available and what occurred, in your own words. You should cover the main points raised in the rating and short answer questions, and any other observations you consider relevant; explanations of "S. isfactory" or "Unsatisfactory" answers are also appropriate and are encouraged.

Miscellaneous Notes

- (1) The front cover of the critique form has blank lines for you to write your name, assignment, etc. ✓
- (2) Please do not use blue ink - it does not photo-copy.

Please note: The observations and judgements recorded on this form will be the basis for future reports and decisions. Be thorough and clear; this will avoid the necessity of contacting you later for clarification.

EMERGENCY WORKER DECONTAMINATION MODULE

Sat Unsat N/A N/O

1. Where is the facility located?

2. Indicate who would go there for decontamination (check one or more):

- ☐ Local law enforcement personnel
- ☐ State law enforcement personnel
- ☐ Local fire department personnel
- ☐ Local radiological monitoring teams
- ☐ State radiological monitoring teams
- ☐ School bus drivers
- ☐ Evacuees
- ☒ Others (specify) *SERO Emergency Workers & their families*

3. Did the decontamination facility staff demonstrate procedures for determining the need to decontaminate:

- People?
- Equipment?
- Vehicles?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4. Describe the equipment and procedures used.

*RM-14's / HP-210 probes
water, detergent, etc as specified
by procedure*

5. Did the decontamination facility staff demonstrate decontamination of:

- People?
- Equipment?
- Vehicles?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

6. Describe the equipment and procedures used.

see comment # 4

6a. Did the decontamination facility staff follow proper procedures for reading and recording dosimeter readings when dosimeters and TLD's were collected?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-------------------------------------	--------------------------	--------------------------	--------------------------

Sat Unsat N/A N/O

7. What is the approximate capacity of the facility in persons per hour and vehicles per hour?

✓

8. Describe the procedures for handling radioactive wastes, including contamination washwater.

✓

Summary

In your own words, describe and evaluate the demonstrated activities, capabilities and resources, or lack thereof, covered by this section. Put the facts recorded in the questions in perspective. Explain both deficiencies and good performance.

LERD DRILL 2 DECEMBER 1986

Facility: EWDF
Lead Controller/Evaluator:

- 0800 EWDF staff arriving and signing roster
- - Decon Leader
- - Decon Leader
Total Personnel - approx. 40
- 0900 Setup of EWDF is being performed in accordance with OPIP 4.3.1.
- 0910 ALERT status put on Status Board in EWDF Admin. Area
- /0930 Observed instrumentation being used at monitoring stations. Two instruments: #5253 and #5230 (of the approx. 12 in use) were nearly discharged at the start of the drill but the Decon Leader directed monitoring personnel to check battery levels about every 15 minutes and change any that were below the acceptable level in anticipation of this problem. This was excellent guidance.
- 1000 Discussed with Decon Leaders the need to keep a EWDF Facility Log and assign a person as Log Keeper and communicator. The facility procedure OPIP 4.3.1 does not require this but the DL's agreed it should be done and it was implemented.
- 1010 DL notified the Decon Coordinator that the EWDF was ready for activation when required.
- 1015 Site Area Emergency declared - no protective action required
DL received this message at 1055.
- /1020 Reviewed the Dosimetry Record Keepers performance in issuing dosimetry and documenting. The Record Keepers are still confused on the correct serial number to use for TLD's and records were issued throughout the drill using the top seven digit number and the bottom right 5 digit number. This must be resolved and corrected.
- 1045 Inspected barrier ropes and posting around the EWDF. Noted 3 barriers blocking entry into the controlled area did not have appropriate radiation warning signs posted on them. These barriers were located at the top right stairs when entering the EWDF and at both entrances to the locker room to right of controlled area in EWDF. The remaining barriers required to set up the EWDF per OPIP 4.3.1 were correct. These barriers were discussed during the Drill Critique.
- 1100 Inspected Vehicle Monitor Stations and discussed monitoring and decon procedures with assigned personnel. Personnel had good understanding of procedures and responded well to hypothetical situations I presented.

1132 General Emergency declared - no release of radioactive materials

1155 Evacuation of 10-mile EPZ - release of rad. materials is expected

1220 Low Level Release - Decon Leader activated EWDF

1300 Examined the monitoring and decon techniques of the EWDF. The personnel followed procedures and responded well to hypothetical situations presented.

1400 Decon Leader requested the Decon Coordinator to provide an estimate of the numbers of contaminated workers and the levels of contamination he might expect to see arriving at the EWDF.

1430 The DL received a report of the radiation levels in the plume area but did not receive a specific response to his question at 1400. Since the general radiation levels were very low (microrem), the assumption made was that not many contaminated individuals would be expected.

1435 Held Critique with personnel staffing vehicle monitoring and decon stations located outside. These areas were broken down due to worsening weather conditions. These personnel were released.

1440 Started passing Emergency Workers straight through monitoring stations. All personnel performing monitoring functions had opportunity to participate. Procedures were followed correctly and technique was good.

1445 DL ordered EWDF broken down and equipment stored.

1530 Held critique with EWDF personnel. Discussed the technical observations noted in above comments. Personnel were then released with the exception of the Dosimetry Record Keepers.

1600 Discussed Dosimetry with Dosimetry Record Keepers. Asked each if any significant dose had been reported. One Record Keeper indicated that he had a 0.9Rem (900 mrem) dose on a high range dosimeter but the low range indicated zero (0) dose. I asked if this was reported to the coordinator in EOC. He indicated it was not because he thought the dosimeter reading was bad (i.e., it had been statically discharged). The Record Keepers were critiqued to provide prompt notification of any exposure anomaly to the coordinator.

1630 Dosimetry Record Keepers attempted to contact EOC for instructions on turning in records. Could not contact the coordinator. Most EOC personnel had been released from drill participation.

General Comment and Observations

Outside (Vehicle Monitoring/Decon)

1. Personnel complained that LILCO Line Trucks returning to parking area, instead of stopping/participating, were actually speeding up excessively and running over cones on their way through the monitoring station. LERO personnel are concerned about their safety.
2. LILCO managers/supervisors working in the center bypass the line at the gate, exit through the cones, and park next to the building, without participating. The LERO personnel feel this further compounds the problem noted in comment #1 above.
3. (Controller Comment) The contaminated vehicle area is between the CLEAN vehicle parking and the building. This requires persons from clean vehicles to walk across the contaminated area to reach the building. The procedure should be modified to correct this.

Inside EWDF (Personnel Monitoring/Decon)

1. The contaminated article tag should have a common serial number on both halves of the ticket to facilitate tracking and identification.
2. The organization and inventory of the EWDF Storeroom needs attention:
 - a. The EWDF phone could not be located and one had to be borrowed for the drill.
 - b. A Cs-137 check source was found in the Storeroom by accident. We had looked for a source in several earlier drills without locating one.
 - c. rubber anti-c gloves are out-of-stock.
 - d. 3" flat, yellow and magenta barrier tape is out-of-stock
 - e. extra copies of storeroom inventory and the EWDF equipment checklist are needed.
 - f. many of the storage boxes are excessively worn.

Dosimetry Record Keepers

1. (Controller Comment) These personnel are not completing the Accumulated Exposure and Assigned Dose columns on the Dosimetry Records. Their emphasis is directed at paper handling rather than exposure control concern.

Lero Family Tracking /
December 2, 1986

, Controller

The Lero Family Tracking center was staffed and fully operational by 8:05 A.M. Orientation and general instructions were completed by 8:20 A.M.

The first phone call was received at 10:00 A.M. with the others following intermittently throughout the day. All phone messages outlined in the December 2 scenario were received and handled according to procedure. Family Tracking staff members called back the original caller to confirm that the message was delivered whenever this was required by the nature of the call.

The only problems encountered concerned the EOC at Brentwood. While trying to deliver a message to a LERO worker at the EOC, the Family Tracker stated "This is a drill" at both the beginning and end of the conversation. The callback from the EOC to confirm that the message had been delivered came from the person the message was for, rather than the person the message was delivered to. The recipient of the message was concerned that something was wrong with her son. The message delivered by Family Tracking stated that the woman's husband was leaving their house with her mother. The Family Tracking staffer stated at least four times that this was a LERO drill before the woman realized what the situation really was.

In addition, several people who answered the phones at the EOC did not initially realize that there was a scenario being acted out. It took some prompting for them to respond correctly. The Family Tracking staff members also discovered that the phone numbers for Administrative Support at the EOC are not correct in the phone listings provided (for example; when 8740 was dialed, the person answering that phone immediately gave another number to be called).