U.S. Department of Homeland Security
Region V
536 South Clark Street, Floor 6
Chicago, IL 60605

FEMA

MAR 5 2009

NRC Headquarters Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

To Whom It May Concern:

Enclosed is one copy of the Dresden Nuclear Power Station Medical Services (MS-1) Drill Report. The drill was conducted in Bolingbrook, Illinois, on December 15, 2008. Participants included members from the Illinois Emergency Management Agency, Bolingbrook Fire Department Emergency Medical Services (EMS), and the Adventist Bolingbrook Hospital.

No Deficiencies and no Areas Requiring Corrective Action were identified during this drill. If you have any questions, please contact me at (312) 408-5575 or William (Bill) Sulinckas at (312) 408-5210.

Sincerely,

Janet M. Odeshoo
Acting Regional Administrator

IX49
AX45
NRR

FEMA

Final Medical Services (MS-1) Drill Report

Dresden Nuclear Power Station

Licensee:	Exelon Corporation
Exercise Date:	December 15, 2008
Report Date:	March 5, 2009

U.S Department of Homeland Security
Federal Emergency Management Agency
Region V

536 South Clark Street
Chicago, Illinois 60605 – 1521

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I. EXECUTIVE SUMMARY

On December 15, 2008, the U.S. Department of Homeland Security's (DHS) Federal Emergency Management Agency (FEMA), Region V, evaluated a Medical Services (MS-1) drill in the 10-mile plume exposure pathway Emergency Planning Zone (EPZ) around the Dresden Nuclear Power Station (DNPS). The purpose of the MS-1 drill was to assess the ability of off-site agencies to respond to a medical emergency involving a potentially radiologically contaminated member of the public. The MS-1 drill was held in accordance with DHS/FEMA's policies and guidance concerning the exercise of State and local radiological emergency response plans.

DHS/FEMA wishes to acknowledge the efforts of the personnel from the State of Illinois Emergency Management Agency (IEMA), Bolingbrook Fire Department Emergency Medical Services (EMS), and the Adventist Bolingbrook Hospital who participated in the MS-1 drill.

The scenario for the MS-1 drill was developed by personnel from the State of Illinois. Dresden Nuclear Power Station has declared a general emergency. The emergency alert sirens have sounded, the public has been directed to evacuate affected areas and to report to reception centers set up in the local area. The scenario is based on an individual that was an evacuee driving to the Carl Sandburg High School. While enroute to the reception center the individual's car over heats, the individual stops at the roadside, opens the car hood and gets her left arm sprayed with hot steam causing a second degree burn on the bottom of the left forearm. Another evacuee sees the accident and drives the person to the reception center. Radiological monitoring and, if necessary, decontamination, of evacuees is provided for at these facilities by staff from IEMA under the Illinois Plant for Radiological Accidents (IPRA). The individual enters the reception center holding her arm and explains the accident to reception staff members, an ambulance is contacted to transport the individual to the hospital. The individual is surveyed while waiting for the ambulance and contamination is detected. The individual will be transported to Adventist Bolingbrook Hospital.

During the MS-1 drill, Criterion 6.d.1 - Transportation and Treatment of Contaminated Injured Individuals, which is part of the six Exercise Evaluation Areas described in Federal Register notice [67 FR 20580-20602], April 2002, which amends the FEMA-REP 14, Radiological Emergency Preparedness Exercise Manual, was evaluated. The State and local organizations demonstrated knowledge of their organizational emergency response plans and procedures and adequately implemented them. No issues were identified as a result of this drill.

II. DRILL NARRATIVES

Medical Services (MS-1) Transportation – Bolingbrook Fire Department EMS

On Monday, December 15, 2008, a Medical Services (MS-1) Drill was conducted at the Adventist Bolingbrook Hospital, 500 Remington Road, Bolingbrook, Illinois. In accordance with the extent of play agreement, the Illinois Emergency Management Agency (IEMA) Radiological Monitor (RM) and the ambulance and crew from the Bolingbrook Fire Department EMS, Bolingbrook, Illinois are assigned to provide services at the simulated reception center and participated in the MS-1 Transportation drill.

The Dresden Nuclear Power Station had declared a General Emergency. The emergency alert sirens had sounded, and the public has been directed to evacuate the affected areas and to report to reception centers set up in the local area. The scenario was based on an individual that was evacuating, driving to the Carl Sandburg High School. While in route to the reception center the individual's car over heats, the individual stops at the roadside, opens the car hood and gets her right arm sprayed with hot steam causing a second degree burn on the bottom of the right forearm. Another evacuee sees the accident and drives the person to the reception center. The individual enters the reception center holding his arm and explains the accident to reception staff members, and an ambulance is contacted to transport the individual to the hospital. Contamination was simulated detected by the portal monitor and the individual was surveyed while waiting for the ambulance.

For demonstrations purposes, the IEMA RM operationally checked the survey equipment that would be used during the drill. This operation was observed at the Bolingbrook Fire Department Building prior to starting the Drill. The meters were checked to ensure that they contained fresh batteries.

The survey meter probes were secured in plastic bags to protect them from contamination. Additional bags were available in case a bag became contaminated and had to be replaced. The survey meters were turned on and allowed to warm up, and headphones were attached to the meter but not used for the demonstration. The survey instruments used included: Bicron Micro-R meter, last calibrated on 4-15-08, and due for calibration on 4-15-09; a Ludlum 2241-3 digital scalar/rate meter with pancake probe last calibrated on 4-15-08, with the next calibration due on 4-15-09. The instruments passed an operational battery test and a source response check prior to use by the IEMA RM. The source was imbedded in the side of the carrying case used to transport the equipment. The source was a 10uCi, CS-137 source dated November 2005. The operability check, exposure rate and count rate were recorded on a label affixed on the side of the instrument (Bicron Micro-R meter was 1.1-1.8mR/hr and the Ludlum 2241-3 was 21.6-36.0k cpm).

For the drill, the Carl Sandburg High School (simulated) was set up at the Bolingbrook Fire Department Building approximately 5 miles from the receiving hospital. The IEMA RM arrived with a field supply kit containing personal dosimetry, and other support

supplies such as disposable gloves, swipes and plastic bags. Supplies also included copies of the Reception Center Monitoring/Action Log Form [IEMA 267]. A copy of this form was used during the drill to record patient survey information.

The personal dosimetry kit included the following: a Dosimeter Corporation of America Model 622 Direct-Reading Dosimeter (DRD) with a range of 0-20 R, leak tested on 6-2008; a permanent reading Landauer Optically Stimulated Luminescent Dosimeter (LD) with an effective date of July 08 – June 10; a Radiation Exposure Record card with space to record user information; an instruction sheet describing use and precautions for ingesting potassium iodide (KI); and 14 doses of KI provided by iOSAT, in 130 mg tablets individually sealed with an expiration date of June 2007. A printed card inside the kit advised the user that the KI was tested and the drug was found to be viable so the expiration date was extended. Through interview, it was stated that a copy of the extension letter, which identifies the extension date as May 2009, is kept in the command vehicle located at the reception center from which the IEMA RM was dispatched.

At 1302 hours, the ambulance crew from the Bolingbrook Fire Department EMS received a call from the 911 dispatch center deploying them to the reception center. The ambulance used for the drill was equipped with an 800 MHz radio system, which had the capability to communicate with the 911 center, hospital and other response units. The ambulance also had a regional medical channel. The Bolingbrook Fire Department Ambulance EMT's had cell phones for primary use and a telepin phone for back-up communication. Drill records indicated that the ambulance crew contacted the Adventist Bolingbrook Hospital at 1331 hours, and informed the dispatch that they were en-route with a contaminated patient and they would call back later with additional information.

The IEMA RM took background readings in the area of the reception center. Using a Bicron Micro-R meter, readings of 40 counts per minute were noted in the reception center. This level was established as background and was used to establish the decontamination level. The State of Illinois has established a decontamination level of two times background. Monitoring of the patient was conducted in a low radiation background area. The individual was surveyed while waiting for the ambulance. Contamination was detected and recorded.

The patient was examined using a Ludlum Model 2241-3 survey instrument equipped with a pancake probe, speaker and set-able alarm. The monitoring techniques used were slow and methodical, with proper positioning of the probe for personnel monitoring. Contamination was found on the victim and documented on a Decontamination Center Monitoring/Action Log Form as follows: right side of neck - 1200 cpm; right palm - 3000 cpm; left forearm - 1200 cpm; left palm – 2000 cpm; waistline forward – 1500 cpm; with a background - 40 cpm. Personal information and comments containing information regarding the injury also were recorded on the form.

At 1306 hours, EMT's from the Bolingbrook Fire Department EMS arrived at the reception center. The EMT's were given a status of the patient's condition by the IEMA RM. The EMTs took caution in their approach to the victim; this ensured their safety. The EMTs took universal contamination control precautions while treating the patient.

They wore Bunker Gear, boots, and rubber gloves. The information the IEMA RM gathered during the victim survey was passed on to the Bolingbrook Fire Department EMS crew upon arrival at the simulated Reception Center.

The EMT's assessed the patient's level of consciousness, level of pain and vital signs. The victim was mobile and sitting in a chair as the EMT gathered patient information and assessed vital signs. The victim answered questions while the Bolingbrook Fire Department Ambulance EMTs readied the stretcher.

The IEMA representative placed gloves on the victim hands, and booties on the feet to prevent the spread of contamination.

The stretcher was prepared with a long backboard (LBB), double wrap of blankets. The patient laid down on the stretcher with assistance from the ambulance crew. The victim was then wrapped in sheets and secured to LBB and then to the stretcher with patient straps. The ambulance crew then moved the victim to the back of the ambulance and placed the stretcher and patient into the ambulance.

At 1325 hours, the EMTs recorded the patient's contamination information provided by the IEMA RM. The EMTs prepared to transport the patient to the hospital. During this preparation the ambulance crew took vital signs, and simulated placing the patient on oxygen, starting an IV of .9 Normal Saline, and placing the patient on a heart monitor. The IEMA Controller provided the patient information as follows: The Patient is alert and oriented, pulse-110, respirations- 24, skin warm and moist, pupils-PERRL, BP 130/92, lungs sounds clear and equal bilateral, ECG-sinus-tachycardia, O2 sat-97% on room air. The EMT riding in the back of the ambulance provided medical care and gathered personal information from the patient to relay to the hospital. The patient's medical treatment received the highest priority from the ambulance crew. The ambulance crew simulated administering pain medication in accordance with local protocols.

At 1120 hours, the ambulance crew departed the scene. The IEMA RM rode with the ambulance to the hospital. During the entire demonstration, the ambulance crew and the IEMA RM remained aware of potentially contaminated areas, and conducted contamination surveys when contamination was suspected. The ambulance personnel simulated changing gloves frequently and placed them, and all equipment used, into a bag that indicated that the contents contained contaminated items. Through interview, the patient decontamination process was discussed and could occur in route to the hospital.

At 1333 hours, the EMT Paramedic communicated the patient's condition with Adventist Bolingbrook Hospital's Emergency Department staff via cell phone. The EMT reported the ambulance was in route with a patient whose chief complaint (Steam burn to the Right), radiological contamination readings and the location of contamination, level of consciousness and the recorded patient vital information. The Bolingbrook Fire Department EMT reported that the patient was cocooned. The EMTs gave an estimated time of arrival of five minutes.

The Bolingbrook Fire Department EMS arrived at the Adventist Bolingbrook Hospital at

1138 hours. The patient was then removed from the ambulance. The Emergency Department Staff and IEMA RM met the ambulance personnel in the receiving area adjacent to the hospital decontamination room. The hospital and EMTs transferred the patient from the stretcher to the gurney.

The Emergency Department staff was briefed on the patient's condition (by the ambulance crew) and patient contamination by the IEMA to the Adventist Bolingbrook Hospital staff and IEMA RM assigned to the Hospital. This information was recorded earlier on a Decontamination Center Monitoring/Action Log Form.

Through discussion with the IEMA monitor, after the patient was transferred to hospital personnel, the EMTs, equipment, and ambulance were surveyed for contamination by the IEMA RM. The ambulance crew and IEMA RM displayed a good awareness for the location of potential contamination. Also surveyed were all locations touched by the EMTs during treatment and monitoring of the patient during transport to the hospital.

For demonstration purposes, one EMT was partially monitored and demonstrated the proper doffing of anti-contamination clothing. The EMT doffing and IEMA RM survey methods were discussed and adequate for the demonstration. Potentially contaminated clothing and equipment was double bagged and appropriately labeled for transfer to the appropriate receiving agency.

The IEMA RM discussed taking a swipe of any area found to be contaminated. The swipe would be bagged and the sample transferred later to the State laboratory. The ambulance receiving area was monitored and found clean. Through interview, decontamination procedures were reviewed with the IEMA RM and ambulance crew. The steps the IEMA RM described would have adequately decontaminated the ambulance. Further discussions indicated the ambulance and ambulance equipment would have been adequately monitored for contamination, and released back to service.

Through interview, the ambulance crew stated that they knew what locations are designated as monitoring and decontamination facilities in the local area. They would report to one of these locations, or they would be told where to go for decontamination in the event they needed this service. They were familiar with the hazards of radiation contamination and the precautions to take to avoid the spread of contamination. Through interview, the ambulance crew demonstrated that they were aware of the primary route to the Adventist Bolingbrook Hospital and other hospitals in the area that could treat radiological exposed patients. The crew was able to identify and describe alternative routes to the Adventist Bolingbrook Hospital in the event that the primary route was blocked.

The IEMA RM discussed the process of surveying the Adventist Bolingbrook Hospital receiving area with the Ludlum 2241-3 survey meter. He then demonstrated and described what actions would be taken should contamination be found in this area. The IEMA RM stated that they have an established priority for getting the ambulance and the hospital's receiving area cleared and the radiation monitoring process completed to ensure that the ambulance and hospital receiving area were placed back into service as

soon as possible. All areas of the hospital and path from the ambulance to the treatment room were surveyed and deemed cleared by controller injects. These areas had readings of background.

All activities described in the demonstration criterion were carried out in accordance with the plan, procedures, and extent of play agreement.

Medical Services (MS-1) Hospital – Adventist Bolingbrook Hospital, Bolingbrook, Illinois

The State of Illinois' Medical Services (MS-1) Hospital Drill was performed as an out of sequence event on December 15, 2008, commencing at 1300 hours, for the Adventist Bolingbrook Medical Center (ABMC) in Bolingbrook, Illinois. Through interview it was related to the Medical Center that the Center would be notified of an event at the Dresden Nuclear Power Station (DNPS) by the Illinois emergency Management Agency (IEMA) or a medical health representative stationed at the Local Emergency Operations Center. Since this was an out of sequence event the ABMC was notified by artificial means. The hospital exercise commenced at 1319 hours, via a Controller's inject to the Emergency Department (ED) nurses' station. This inject was provided simultaneously as the Bolingbrook Fire Department Emergency Medical Services (EMS) was provided a Controller's inject to responds to an incident at the simulated Reception Center Facility (Bolingbrook Fire Station). This action was necessary to provide time for the setup of the DECON room. The Fire Station was within five minutes of the Medical Center; closer than the actual Reception Center.

The hospital staff followed their procedures and established a secure Decontamination (DECON) Room. The on-duty Charge Nurse at the ED Nurse's Station commenced a call-down using commercial telephones and hospital pagers to alert the proper medical staff of the potential arrival of an injured and contaminated patient. Through interview it was identified that no formal code (ABMC: Code Triage Level II) was declared by the hospital due to only one contaminated victim being transported. At approximately 1333 hours, all pertinent medical data was relayed via cell phone from the ambulance crew to the Charge Nurse who recorded this information in writing: steam burn to the right forearm; radiological contamination locations (both palms, left shoe and front waist of pants); level of consciousness (alert and orientated); and vital information (Pulse=110; Respiration=24; and Blood Pressure=130/92).

The following medical staff were either notified or responded per the hospital's plan: Director of Emergency Services; Shift Director; Director of Safety/Security; infection Control Nurse; Chief Nursing Officer; Medical Director Emergency Services; and the Administrator on Call. The Illinois Emergency Management Agency (IEMA) was simulated as being contacted to provide radiological monitor (RM) support as outlined in the Illinois Plan for Radiological Accidents (IPRA). In accordance with the hospital's plan two Emergency Department Nurses and the Hospital Radiologist were dispatched to the Decontamination (DECON) Room. Additionally, an IEMA radiological representative (pre-positioned) and two hospital security staff arrived at the DECON Room. The attending medical staff donned the appropriate (Level I) Personal Protective Equipment, obtained from two HazMat cabinets: gloves (2 pair); face mask; face shield; hair covers; booties; and gown. Appropriate circumferential taping of adjoining seams between gloves and the gown was conducted.

The IEMA RM donned protective gear: gloves (2 pair); hair cover; booties and gown. The IEMA RM prepared dosimetry and survey equipment prior to the patient's arrival.

The following equipment was utilized during this exercise: Dosimeter Corporation of America Model 622 Direct-Reading Dosimeter with a range of 0-20 R, leak tested on May 9, 2008; Bicron Micro-R Meter, calibrated on August 19, 2008 and due for calibration on August 19, 2009; and a Ludlum 2241-3 digital scalar/rate meter with a pancake probe that was calibrated on August 20, 2008 and due calibration on August 20, 2009. Operability check exposure rate and count rate were recorded on labels attached to the equipment (Bicron Micro-R Meter was 1.0 mR/hr and the Ludlum 2241-3 count rate was 21-28 kcpm). The pancake probe was encased in a plastic bag to protect it from contamination. Additional replacement bags were available should the attached one become contaminated. The survey meter was turned on and warmed-up. The IEAM RM response kit also included 14 doses of potassium iodide (KI) (iOSAT 130mg tablets) with an expiration date of June 2007. A printed card inside the kit provided information extending the expiration date (June 2009); this information is supported by a letter from IEMA.

Preparation of the DECON Room was accomplished prior to patient arrival. The hospital security personnel assisted in the establishment of the buffer zone using yellow "Radioactive Material" tape on the floor and Restricted Area tape at chest level. Two HazMat equipment wheeled cabinets were removed from the DECON Room and stationed in the buffer zone. The necessary equipment for establishing the contamination control area was obtained from these cabinets. The drain within the DECON Room was taped closed, as well as a crack in the concrete floor. The IEMA RM conducted a survey of the DECON Room and established a background check reading of 60 counts per minute. Decontamination levels established by the State of Illinois are two times the background.

The HazMat cabinets contained additional equipment and materials needed to support the contamination control and treatment of arriving patients: gloves, masks, booties, gowns, hair covers, and face shields for medical personnel; wipes, sterile water, brushes, wraps, plastic bags (zip lock and HazMat labeled), sterile dressings, and disposable stethoscopes for patient treatment.

The ambulance driveway provided a permanent covered canopy. A direct entrance to the DECON Room from the ambulance bay was via a separate door adjacent to the double electronic doors that entered the ED. Through interview it was identified that the patient would be brought into the DECON Room and transferred to a treatment room if additional medical treatment was necessary after decontamination. As all Emergency Department treatment rooms were occupied by real world patients the DECON Room also served as the treatment room for this event. Entrance to the ED for non-contaminated patients was via the electronic double doors and around the established buffer zone; avoiding any contaminated area.

At approximately 1138 hours, the Bolingbrook FD EMS arrived at the hospital. The patient was removed from the ambulance adjacent to the DECON Room entrance. The ED staff and the IEMA Hospital RM met with the EMT Paramedics and transferred the patient from the EMT stretcher to a prepared hospital gurney. The ED staff was informed of the patient's physical condition by the EMT and the IEMA RMs conferred on the

contamination locations.

The patient was wrapped (cocooned) by the EMS prior to transport. The IEMA RM assisted by the Radiological Officer and Radiological Nurse properly unwrapped the patient; lifting and rolling the blankets inward to contain any contamination and minimize any potential cross-contamination.

The IEMA RM assigned to the ED, conducted an initial survey of the patient confirming the locations provided by the IEMA RM assigned to the EMS; readings obtained were left palm 2000 cpm; left forearm 1200 cpm; left shoe 1500 cpm; right palm 3000 cpm; pants at front waist 1000 cpm and right neck 1200 cpm. This survey was conducted in unison with the EM staff that was attending to the patient's injury (burn to the right forearm). ED staff was advised of contaminated locations as they were detected/confirmed. IEMA RM advised that the shoes and pants should be removed to minimize exposure or cross-contamination. The hospital Radiological Officer assisted the IEMA RM with the removal and bagging of the contaminated clothing. The clothing was cut away and rolled to contain any contaminated partials. The shoe laces were simulated being cut and the shoes removed. A hazardous material bag was utilized to contain the contaminated clothing. Two hazardous waste bag holders with closable lids were within the DECON room. However, these containers were used as table-tops since no other counter/tables were available in the DECON room. The hazardous waste bag with the contaminated materials was positioned on the floor away from the patient treatment area.

The ED staff routinely asked the patient for information concerning how the injury/contamination occurred and medical history. The patient re-confirmed that he was allergic to Demerol. At approximately 1346 hours while being surveyed, the patient complained of pain (7-8 on a scale of 10). The attending Radiological Nurse administered 2 mg of Morphine. The IEMA RM surveyed the nurse's gloves after administering the medication; no contamination was detected.

The patient's wound was surveyed for contamination; none detected. The wound was washed with a saline solution (simulated) and bandaged. Via interview the ED staff advised that the waste water would be captured using clean dressings to minimize any possible contamination being spread.

Decontamination using tape was conducted on the remaining contaminated areas. First attempt of the left palm and left forearm resulted in bringing the contamination level below the established baseline. The first attempt of the right palm reduced the level to 500 cpm, with a second attempt reducing the count below baseline. The first attempt at the right neck reduced the level to 800 cpm and a second attempt resulting in a below baseline reading.

Nasal swabs were taken (simulated per the extent of play) and secured within sealed plastic bags. These bags were surveyed and then transferred to the nurse waiting in the buffer zone for simulated processing by the hospital lab.

At approximately 1405 hours, the IEMA RM completed a frontal survey and advised that

there was no anterior hazardous contamination above the baseline. At approximately 1410 hours, the IEMA RM after conducting a posterior survey confirmed that there was no hazardous contamination above the baseline. The patient was transferred to a wheelchair in the buffer zone with the assistance of the IEMA RM and hospital Radiological Officer ensuring that the patient did not become cross-contaminated.

The hospital and the IEMA RM addressed the clean-up and surveying of the room/area with a Ludlum 2241-3 survey meter via interview; ensuring that the area was contamination free, readings returned to base level and area returned to normal operations. The hospital RM also identified the action to take should the situation require additional information and the IEMA RM was not available; contact with REAC/TS. The contact information was available in the DECON Room on a wall chart/checklist.

It was noted that 13 Medical Center and ambulance personnel received Emergency Medical Services for Radiation Accidents training presented by IEMA staff on the morning of December 15, 2008, prior to the drill being conducted.

All activities described in the demonstration criterion were carried out in accordance with the plan, procedures, and the extent of play agreement.

III. EXTENT OF PLAY AGREEMENT

EXTENT OF PLAY AGREEMENT
FOR THE
MEDICAL SERVICES EXERCISE
December 15, 2008

Location: Adventist Bolingbrook Hospital
Transportation Provider: Bolingbrook Fire Department EMS
500 Remington Road
Bolingbrook, IL 60440

Participants:
Victim (volunteer)
Lead Controller: (IEMA)
IEMA ER Monitor: Don Eastep
IEMA Hospital Controller: Kathy Allen
IEMA Ambulance Monitor: Mark Hannant
IEMA Ambulance Controller: Joni Estabrook

Criteria that can be re-demonstrated immediately for credit, at the discretion of the evaluator, include the following: For Transportation: 1.d.1, 3.a.1 and 6.d.1; for the Hospital, 1.d.1, 1.e.1, 3.a.1 and 6.d.1. Criteria may be re-demonstrated, as agreed by the Lead Controller and FEMA Evaluators.

EVALUATION AREA 1 - EMERGENCY OPERATIONS MANAGEMENT

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

The Bolingbrook Fire Department EMS will use 2-way radios to communicate with Adventist Bolingbrook Hospital. Other communication systems that can be used include commercial telephone or cell phones.

Criterion 1.e.1: Equipment, maps, displays, dosimetry, potassium iodide (KI) and other supplies are sufficient to support emergency operations.

Adventist Bolingbrook Hospital will adequately demonstrate the ability to support operations, with adequate resources. The availability of dosimetry and KI for hospital personnel will not be demonstrated during this exercise, however IEMA staff will be issued dosimetry and KI as field team members.

EVALUATION AREA 3 - PROTECTIVE ACTION IMPLEMENTATION

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

The use of dosimetry and KI will not be demonstrated by hospital staff. IEMA staff will demonstrate appropriate use of dosimetry and KI.

For purposes of this exercise, if there is no medical need to bring equipment into and out of the treatment room, nasal swabs will be taken (swabs to be taken outside the nose to simulate taking swabs inside the nose) and passed out of the room to demonstrate movement of equipment and supplies into and out of the controlled area.

EVALUATION AREA 6.d – TRANSPORTATION AND TREATMENT OF CONTAMINATED INJURED INDIVIDUALS

Criterion 6.d.1: The facility/ORO has the appropriate space, adequate resources, and trained personnel to provide transport, monitoring, decontamination, and medical services to contaminated injured individuals.

The hospital will demonstrate procedures for limiting exposure to hospital staff, decontaminating a patient, and restricting access to the area where the patient is being treated and monitored.

Bolingbrook Fire Department EMS will demonstrate the capability to transport contaminated, injured individuals to Adventist Bolingbrook Hospital in Bolingbrook. The ambulance crew will pick up a contaminated injured patient near the grounds of Adventist Bolingbrook Hospital (simulating pick-up of a patient from Carl Sandburg High School, a designated Reception Center). The ambulance crew will be met by IEMA staff that will perform initial radiation monitoring, and will provide information regarding contamination levels on the patient. Bolingbrook Fire Department EMS will utilize universal precautions and good housekeeping practices to minimize the spread of contamination, and will focus on treating the patient's medical condition.

Bolingbrook Fire Department EMS will call in the information regarding the patient to Adventist Bolingbrook Hospital in Bolingbrook so they can prepare for receipt of a contaminated patient. IEMA personnel will accompany the patient to the hospital along with the ambulance, bringing instrumentation to provide radiation readings and guidance to the hospital.

Adventist Bolingbrook Hospital will implement their plan for receipt, isolation and treatment of an injured contaminated patient. Medical personnel will utilize universal precautions and good housekeeping practices to minimize the spread of contamination, and will focus on treating the patient's medical condition. Simple decontamination efforts will be demonstrated after the patient has been medically stabilized. IEMA

personnel will discuss the need to take additional samples for further radiological analysis. Hospital personnel will demonstrate their knowledge of who to call beyond IEMA for assistance in Radiological Accidents, e.g., REAC/TS.

For purposes of this exercise, another IEMA staff member will be dispatched to Adventist Bolingbrook Hospital with radiation detection and measurement equipment in advance of the ambulance arriving. The purpose of having two separate individuals for this exercise is to facilitate monitoring the ambulance and ambulance personnel so they are not kept out of service for an extended period of time.

Adventist Bolingbrook Hospital also has a Nuclear Medicine Department, and Nuclear Medicine personnel are available to assist with radiation surveys and monitoring.

The drill will conclude with the hospital representative and IEMA personnel supervising the removal of protective clothing and surveying of the emergency room and hospital personnel. IEMA will also advise on the proper procedure for release or disposal of contaminated material.

For purposes of this exercise, if there is no medical need to bring equipment into and out of the treatment room, nasal swabs will be taken (swabs to be taken outside the nose to simulate taking swabs inside the nose) and passed out of the room to demonstrate movement of equipment and supplies into and out of the controlled area.

Following the conclusion of the drill, a short critique will be held.