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

FEMA

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 Byron Station Medical Services (MS-1) Drill Report. The drill was conducted in Rockford, Illinois, on December 29, 2008. Participants included members from the Illinois Emergency Management Agency, Lifeline Ambulance Service and the Saint Anthony Medical Center.

No Deficiencies and no Areas Requiring Corrective Action were identified during this drill.

Based on the results of the December 29, 2008, MS-1 drill, the offsite radiological emergency response plans and preparedness for the State of Illinois and affected local jurisdictions, site-specific to the Byron Station, can be implemented and are adequate to provide reasonable assurance that appropriate measures can be taken offsite to protect the health and safety of the public in the event of a radiological emergency at the site.

Therefore, the Title 44 CFR, Part 350, approval of the offsite radiological emergency response plans and preparedness for the State of Illinois site-specific to the Byron Station, granted on June 4, 1982, remains in effect.

Copies of this Report were transmitted to the DHS/FEMA National Office, Nuclear Regulatory Commission (NRC) Region III, NRC Office of Nuclear Security and Incident Response, and the State of Illinois.

If you have any questions, please contact William E. King, Chairman, Regional Assistance Committee, DHS/FEMA Region V, at (312) 408-5575.

Sincerely,

Janet M. Odeshoo
Acting Regional Administrator

Enclosure (1)

AX45
NRR

FEMA

Final Medical Services (MS-1) Drill Report

Byron Station

Licensee:	Exelon Corporation
Exercise Date:	December 29, 2008
Report Date:	January 21, 2008

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 29, 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 Byron Station (BS). 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), Lifeline Ambulance Service, and the Saint Anthony Medical Center who participated in the MS-1 drill.

The scenario for the MS-1 Drill was developed by personnel from the State of Illinois. The BS has declared a general emergency. The emergency alert sirens had 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 Thomas Jefferson High School. While in route to the reception center the individual's car over heats, the individual stops on the roadside, opens the car hood and gets his 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 Plan 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 St. Anthony's 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.

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II. DRILL NARRATIVES

Medical Services (MS-1) Transportation – Lifeline Ambulance Service

On Monday, December 29, 2008, a Medical Services (MS-1) Drill was conducted at the Saint Anthony Medical Center, 5666 East State Street, Rockford, Illinois. In accordance with the extent of play agreement, the ambulance and crew from the Lifeline Ambulance Service, Rockford, Illinois, and an Illinois Emergency Management Agency (IEMA) Radiological Monitor (RM), assigned to provide services at the simulated reception center and in the ambulance, participated in the MS-1 Transportation drill.

The scenario for the MS-1 Drill was developed by personnel from the State of Illinois. The Byron Station (BS) had declared a general emergency. The emergency alert sirens had 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 Thomas Jefferson High School. While in route to the reception center the individual's car over heats, the individual stops on the roadside, opens the car hood and gets his 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 Plan for Radiological Accidents (IPRA). The individual enters the reception center holding his 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 St. Anthony's Hospital.

For the purpose of the exercise, the Thomas Jefferson High School Reception Center (simulated) was set up at the Lifeline Ambulance Service Bay away from the hospital. The IEMA RM arrived with a metal carrying case containing survey meters, personal dosimetry, and other support supplies such as disposable gloves and yellow tape, which was later used to cordon off areas of the reception center. Supplies also consisted of copies of the Decontamination Center Monitoring/Action Log Form. A copy of this form was used during the drill to record patient survey information.

For demonstration purposes, the IEMA RM operationally checked the survey equipment that would be used during the drill. Meters were checked to ensure that they contained fresh batteries. Survey meters and 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. Survey meters were turned on and allowed to warm up. Headphones were attached to the meters. Survey instruments used included: Bicron Micro-R meter, last calibrated on 8/19/2008, and due for calibration on 8/19/2009, and Ludlum 2241-3 digital scalar/rate meter with pancake probe last calibrated on 8/20/2008, with the next calibration due on 8/20/2009. Instruments passed an operational battery test and a source response check prior to use by the IEMA RM. A source (10uC CS-137 – Nov 2005) was imbedded in the side of the carrying case used to transport the equipment. The operability check, exposure rate and count rate were

recorded on a label affixed on a side of the instrument (Bicron Micro-R meter was .9-1.5 mR/hr and the Ludlum 2241-3 was 21.6-36.0 k cpm).

The IEMA RM was questioned about his knowledge to manage radiological exposure for emergency workers. The IEMA RM was familiar with how to complete the Radiation Exposure Record card with name, social security number, and current date; knew how to wear the permanent Landauer Luminescent Dosimeter, check the Direct-Reading Dosimeter (DRD) every 30 minutes and record readings on the record cards. He was aware of the administrative reporting limit (1R) and turn-back value (3R). By monitoring his own DRDs and using radiation survey equipment, the IEMA RM at the Reception Center was aware of local conditions and could advise hospital personnel of changes in readings, if any. Only a very low level of exposure was expected at this facility and in the ambulance. After this assignment, the IEMA RM could be reassigned to another location. Equipment would be cleared of contamination at the end of the mission.

According to the extent of play agreement negotiated with the Department of Homeland Security Federal Emergency Management Agency Office, Region V, personal dosimetry was not issued to hospital personnel by IEMA.

The IEMA RM took background readings in the area of the reception center that would be used for patient transfer and treatment. Using a Ludlum 2241-3 meter, readings of 40 counts per minute were noted in the reception center. This level was established as background to be used for establishing the decontamination level. The State of Illinois has established a decontamination level of two times background.

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 June 2009, is kept in the command vehicle located at the reception center from which the IEMA RM was dispatched.

At 1319 hours, reception center workers placed a call to the 911 center. At 1321 hours, the ambulance crew from the Lifeline Ambulance Service 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 be contacted from the 911 center and the hospital. The ambulance crew also had a Medical Emergency Radio Communications for Illinois (MERCI) regional medical channel and cell phones for communication. The drill records indicate that the ambulance crew contacted the Saint Anthony Medical Center at 1321 hours, and informed the center that they were in-route to attend to a contaminated patient and would call in later with more information.

Concurrent with the IEMA RM operationally checked the survey instruments and taking background readings, the reception center staff kept the accident victim comfortable. While waiting for the ambulance to arrive, the victim was monitored for contamination by the IEMA RM. Monitoring of the patient was conducted in a low radiation background area. 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: left forearm - 1200 cpm; On neck – 1200 cpm; waist – 1000 cpm; right hand – 3000 cpm; left hand 2000 cpm; left shoe – 1500 cpm. Personal information and comments containing information regarding the injury also were recorded on the form.

At 1326 hours, personnel from the Lifeline Ambulance Service 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. The Lifeline Ambulance crew wore paper coveralls, face and eye protection, and rubber gloves.

The EMT's assessed the patient's level of consciousness, level of pain and vital signs. The victim was mobile as the EMT gathered patient information and assessed vital signs. The victim answered questions while the Lifeline 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 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 a Long Back Board (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 1337 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. The IEMA Controller provided the patient information as follows: The Patient is alert and oriented, pulse-130, respirations- 28, skin warm pale and moist, pupils-PERRL, BP 157/100, lungs sounds short quick breaths, 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 1340 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 1345 hours, the EMT Paramedic communicated the patient's condition with Saint Anthony Medical Center Emergency Department staff via cell phone. The EMT reported the ambulance was in route with a patient whose chief complaint (Steam burn to the Left Arm), radiological contamination readings and the location of contamination, level of consciousness and the recorded patient vital information. The Lifeline EMT reported that the patient was cocooned. The EMTs gave an estimated time of arrival of five minutes.

The Lifeline EMS arrived at the Saint Anthony Medical Center at 1350 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 RM to the Saint Anthony Medical Center ER 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 Saint Anthony Medical Center and other hospitals in the area that could treat radiological exposed patients. The crew was able to identify and describe alternative routes to the Saint Anthony Medical Center in the event that the primary route was blocked.

The IEMA RM discussed the process of surveying the Saint Anthony Medical Center 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.

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Medical Services (MS-1) Hospital –
Saint Anthony Medical Center, Rockford, Illinois

The treatment of a contaminated injured individual was demonstrated at Saint Anthony Medical Center (SAMC) out of sequence at 1300 hours on December 29, 2008 in Rockford, Illinois. Appropriate space, adequate resources and trained personnel were available to monitor, decontaminate and treat a contaminated injured individual.

The SAMC Emergency Room Charge nurse was contacted by the Lifeline Ambulance Service at 1335 hours. The Charge nurse was informed that they were responding to an incident with an injured individual with a possibility of having been exposed to radioactivity. The Charge nurse was provided with patient stats, a brief description of the contamination, and an estimated time of arrival. The call was received on a Medical Emergency Radio Communications for Illinois (MERCI) radio channel at the Charge nurse Station. The radio system was a desk hand set unit similar to a telephone but only with radio capabilities. There was also a fax machine for receiving EKG and other faxes from the ambulance. A regular telephone was also available for backup and for non-emergency communications.

In response to the call from the ambulance, the Charge nurse initiated a call of emergency response personnel. Since there was only one patient it was decided not to declare a "Code Yellow." The Emergency Room Director, Emergency Room nurses and Technicians, Nuclear Medicine, Security, and the Emergency Room doctor were all contacted in person. All the responding personnel were within the Emergency Room area prior to the beginning of the exercise. If the emergency had been an actual emergency or if there were multiple injured individuals, a "Code Orange" would have been declared and a call out per Appendix IV, Incident Contact List, from the OSF Saint Anthony Medical Center Decontamination Team Standard Operating Guides would have been used. This Appendix has listing of individuals and positions with office, cell and/or page telephone numbers.

A "Warm Zone" was established within the Ambulance bay and the hall way leading to a Decontamination Room. The "Radiation Area" tape was used to define the Warm Zone boundary on the floor in front of the Decontamination Room and out into the Ambulance Bay.

Radiation monitoring was provided by an Illinois Emergency Management Agency (IEMA) Representative and a SAMC Nuclear Medicine Technician. The IEMA Representative arrived with an instrument case having a Ludlum 2241 rate meter calibrated on June 12, 2008 with the next calibration due date of June 12, 2009. A Ludlum Model 44-2 pancake probe was used for monitoring with this instrument. It was checked for operability using a cesium check source attached to the instrument case. The operability range as listed on the calibration sticker was 21,000-36,000 cpm. The instrument read mid-range at 29,200 cpm. The instrument and the probe were covered with thin plastic and functioned without problems during the exercise. A sodium iodine probe and an Alpha/Beta probe were also available but were not used or demonstrated.

A Bicron micro REM meter was also available in the instrument case with a calibration date of July 30, 2008 and a due date of July 30, 2009. This instrument was not used or demonstrated but

was readily available if needed.

The Nuclear Medicine Technician used a Ludlum Biodex Model 14C Survey instrument with a Model 44-9 pancake probe. It had a calibration sticker dated May 1, 2008. The Technician uses this instrument daily and it was checked for operability prior to leaving the Nuclear Medicine Department. Two other instruments, per the Technician, were also available in the Nuclear Medicine Department if this instrument did not function properly. The instrument and probe were covered in plastic and functioned without problems during the exercise. Background was measured at 40 counts per minute.

The IEMA Representative had a Landauer TLD Permanent Record Dosimeter with a two year exchange date of July 2008 to June 2010. The IEMA Representative also had a Dosimeter Corporation of America Model 622 Direct Reading Dosimeter with a range of 0 - 20 R. A sticker attached to the DRD indicated it was last drift tested on May 9, 2008. The IEAM Representative indicated his administrative reporting limit was 1R with a turn back limit of 3R and an annual limit of 5000 mR.

The Nuclear Medicine Technician had an occupational Landauer Luxel Optically Stimulated Dosimeter (OSD) which is exchanged monthly. The next exchange date was due in January 2009.

Only the IEMA Representative and the Nuclear Medicine Technician had dosimetry. No other dosimetry was issued. Using an area radiation monitoring concept, the IEMA Representative's DRD and dose to his TLD would be used to monitor for exposure and to assign any dose to the other emergency responders.

A Medical Decontamination Team consisting of the Nuclear Medicine Technician, IEMA Representative, two Emergency Room nurses and the Emergency Room doctor all dressed out in protective clothing in preparations of receiving the injured contaminated individual. They dressed out in booties, suit, double gloves, and a mask with an eye shield. One of the nurses and the doctor were assigned to be in the Decontamination Room to tend to the patient along with the Nuclear Medicine Technician and IEMA Representative to provide radiation monitoring and to provide advice. The nurse and the doctor were the only persons with direct contact with the patient. The other nurse remained outside of the Decontamination Room to pass items in and out of the Decontamination Room as requested and to record information as provided.

At 1350 hours, the ambulance arrived in the Ambulance Bay. Security directed the Ambulance to back up to the posted area for contamination control. The patient had been cocooned and secured to the ambulance gurney for transport. The gurney and patient were removed from the ambulance and the patient was transferred to a clean hospital gurney. The patient was placed in a portable decontamination basin on the gurney. The Ambulance crew briefed the Emergency Room nurse and doctor on the patient's medical conditions while the IEMA Representative from the ambulance transferred a Reception Center Monitoring/Action Log Form and updated the IEMA Representative and the Nuclear Medicine Technician assigned to the hospital on radiological concerns. The Reception Center Monitoring/Action Log Form had a body map that showed the location and levels of contamination.

The Emergency Room doctor and nurse performed a quick check of the patient's medical conditions to determine if there were any life threatening conditions or medical needs which would take precedence over decontamination. The injuries were determined to me relatively minor (burn on the left arm) and the doctor indicated that the patient should be decontaminated first. The patient was then wheeled into the Decontamination Room taking care to stay within the marked Warm Zone.

The doctor and nurse began un-wrapping the patient under the guidance of the IEMA Representative while continuing to analyze the patient's medical conditions. The Nuclear Medicine Technician monitored the patient for contamination during the entire process. The blanket cocooning the patient was rolled inwards and away from the patient to prevent any spread of contamination. The doctor completed the patient's examination after the wrappings were removed and the IEMA Representative and the Nuclear Medicine Technician began a body survey to verify and determine the extent of the contamination. The doctor indicated that the patient's conditions were stable so decontamination efforts could proceed. The extent of the injuries was a second degree burn on the left forearm.

The body survey found and verified contamination on the neck (1200 cpm), waist (1000 cpm), right hand (3000), left hand (2000 cpm), and left forearm (1200 cpm). The left shoe was also contaminated (1500 cpm). The patient's pants and shirt were cut off and removed taking care not to spread contamination. The patient's shoes were removed. The shoes, clothing and any item that came in contact with the patient were disposed of in a radioactive waste designated container. The IEMA Representative provided instructions during the process to ensure contamination was contained within the clothing being removed. After the shoes, pants and shirt were removed, the subsequent survey found no contamination in the waist or foot areas. Anything that was twice background was considered contaminated. Background was measured at 40 cpm.

Gloves were monitored for contamination after each step in the process and the outer gloves were frequently changed to prevent the spread of contamination.

The nurse and doctor then began the decontamination process. First the neck area was decontaminated using wipes wetted with a saline solution. The neck area was washed with the wipes and the wipes were disposed of in a waste container labeled as radioactive waste. Each hand and the forearm were also wiped clean using the wetted wipes. The nurses and the doctors hands were monitored for contamination and the outer gloves were changed, with the used gloves being disposed of as radioactive waste.

The patient was then re-monitored. Contamination was still present on the neck and right hand. The same decontamination process was repeated using wetted wipes. After the second decontamination, no contamination was found on the patient in subsequent monitoring.

A complete body survey of the patient was conducted. No contamination was found on the patient. The nurse prepped the patient to transfer him from the Decontamination Room. The wound was wrapped with a bandage in preparation to be transferred from the Decontamination

Room for medical treatment.

A nasal swab was taken. The Emergency Room nurse obtained a swab packet from the supplies on a nearby cabinet. The swab packet was opened and the swab was removed. One nostril was (simulated) swabbed. The swab was placed back into its container and put into a plastic bag and the bag was properly labeled. The nurse then passed the bagged swab out of the Decontamination Room. The nurse outside of the Decontamination held a plastic bag open while the Emergency Room nurse dropped the bagged swab into the open plastic bag. Care was taken to prevent the spread of contamination. The same process was repeated for the second swab of the other nostril. The nurse's gloves were monitored for contamination and the outer gloves were removed, disposed of as radioactive waste and replaced with clean gloves.

A clean hospital gurney was wheeled to a location outside of the marked Warm Zone. The gurney having the patient was wheeled outward from the Decontamination Room end to end with the clean gurney. The patient was transferred taking care not to spread any contamination. Once outside of the Warm Zone the patient was transported to another emergency treatment room for treatment of the injuries.

The nurse doffed her protective clothing prior to departing the Decontamination Room. First her outer gloves were removed and disposed of. The IEMA Representative monitored the doctor's hands to ensure there was no contamination. The mask with eye shield was removed and disposed of. Then with assistance, the suit was removed by rolling outwards and away from the person's body to contain any contamination. All protective clothing was disposed of in the container marked as radioactive waste. The nurse lifted one foot and it was monitored for contamination. The bootie was removed and disposed of. The nurse then stepped out of the marked Warm Zone pad with the clean foot. The second foot was lifted, monitored and the bootie was removed. The nurse removed the inner gloves and then stepped completely out of the Warm Zone and was again monitored for any contamination. This process would have been repeated for each person as they left the Decontamination Room. The IEMA Representative would have been the last one to leave the area after the area, equipment and supplies were completely monitored.

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

OFFSITE MEDICAL DRILL
EXTENT of PLAY
ST. ANTHONY'S HOSPTIAL
Rockford, Illinois

December 29, 2008
Start Time 1:00 p.m.

EXTENT OF PLAY AGREEMENT
FOR THE
MEDICAL SERVICES EXERCISE
December 29, 2008

Location: St. Anthony's Hospital
Transportation Provider: Lifeline Ambulance
5666 East State St.
Rockford, IL 61108-2472

Participants:
Victim (volunteer)
Lead Controller: (IEMA)
IEMA ER Monitor Doug Cole
IEMA Hospital Controller: Joni Estabrook
IEMA Ambulance Monitor: Greg Wos
IEMA Ambulance Controller: Kathy Allen

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 Lifeline Ambulance will use 2-way radios to communicate with St. Anthony's 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.

St. Anthony's 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.

Lifeline Ambulance will demonstrate the capability to transport contaminated, injured individuals to St. Anthony's Hospital in Ottawa. The ambulance crew will pick up a contaminated injured patient near the grounds of St. Anthony's Hospital (simulating pick-up of a patient from Thomas Jefferson 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. Lifeline Ambulance will utilize universal precautions and good housekeeping practices to minimize the spread of contamination, and will focus on treating the patient's medical condition.

Lifeline Ambulance will call in the information regarding the patient to St. Anthony's Hospital in Rockford 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.

St. Anthony's 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 St. Anthony's 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.

St. Anthony's 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.