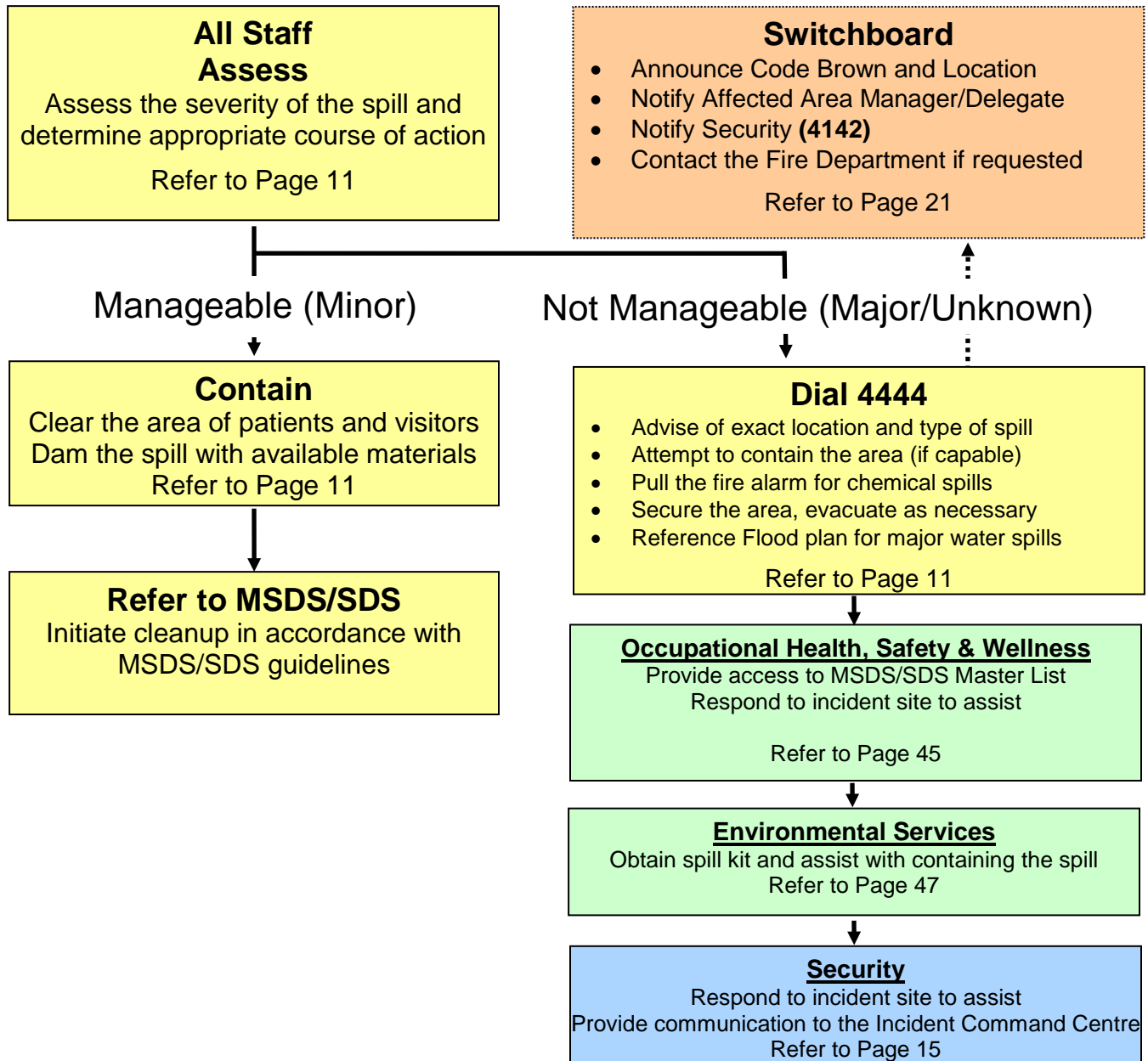


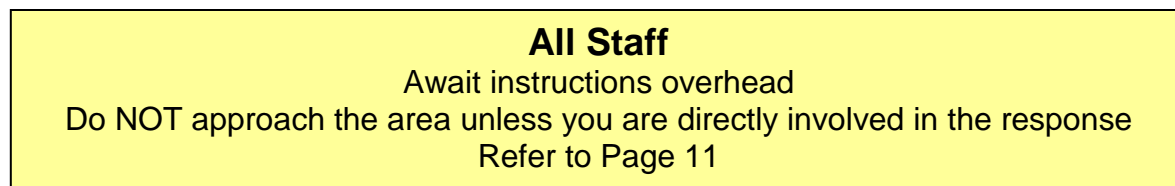
CODE BROWN

Hazardous Spill

Upon Discovering a Hazardous Spill



Upon Hearing a Code Brown Announcement



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1.0 General Overview

1.1. Plan to be Used in Case of a Hazardous Spill

A hazardous spill is defined as the escape from containment of any substance, which by its nature presents a threat to life or safety of the person or the environment through contact, absorption, inhalation or ingestion or a secondary threat of fire or explosion.

Only spills considered major, or unknown, will be announced overhead.

Anyone working with chemical, radioactive or biological materials must take all precautions necessary to prevent/reduce the risk of a spill.

1.2. Authority to Declare

Anyone that is aware of a **major chemical** or **biological** or **unknown spill** is authorized to activate a Code Brown. The fire alarm will be activated to shut down the ventilation systems for major chemical spills.

1.3. Definitions

1.3.1. Minor Spill

- Hazardous chemical or biological spill, which is physically **less than 4 litres**
- Radiological spill of any physical size, which displays a radioactivity level less than 5 times the annual limit on intake (5 ALI)
- Easily contained
- Minimal staff/equipment required for isolation and clean up
- Evacuation unlikely or very limited

1.3.2. Major Spill

- Hazardous chemical or biological spill, which is physically **equal to or greater than 4 litres**
- Radiological spill of any physical size, which displays a radioactivity level **greater than 5 times the annual limit on intake (5 ALI)**
- Genuine threat to staff or environment by virtue of:
 - Airborne contamination
 - Fire
 - Explosion
 - Highly infectious agents
- Greater number of staff/equipment required for isolation and clean up
- Limited evacuation likely; extended evacuation possible
- Probable Hazardous Materials (HAZMAT) team or Fire Department involvement

1.3.3. Unknown Spill

- When it is unknown what the substance is, or how harmful it is to people in the area, the spill will be considered a major spill until proven otherwise
- When the spill substance is unknown, refer to “Response & Recovery – All Staff 2.1 Upon Discovery of a Chemical Spill” for response

NOTE: WHEN IN DOUBT, A SPILL SHOULD BE CONSIDERED MAJOR

Hazardous Chemical

Any substance, having properties which are corrosive, flammable, explosive, oxidizing, reactive, or poisonous, or any substance containing chemical material.

Chemical Classifications for WHMIS 1988 are:

- Class A – Compressed Gas
- Class B – Combustible and Flammable Material
- Class C – Oxidizing Material
- Class D – Div. 1, 2, 3 – Poisonous and Infectious
- Class E – Corrosive Material
- Class F – Dangerously Reactive Material

Chemical Classifications for WHMIS 2015

- Physical Hazards
- Health Hazards

Radiological

Any substance that is itself a radioisotope, or which contains radioisotopes, is considered radioactive. (i.e. bodily fluids from a person containing unsealed sources of radiological material)

Biological

Biological agents are substances containing living organisms (i.e. bacteria or viruses) that have the potential to cause infection/disease some of which could have person-to-person spread. Biological agents are classified in three categories in accordance to their risk factor:

Category A

High-priority agents include organisms that pose a risk to national security because they:

- can be easily disseminated or transmitted from person to person;
- result in high mortality rates and have the potential for major public health impact;
- might cause public panic and social disruption; and
- require special action for public health preparedness

Examples:

Anthrax

Botulism

Smallpox

Category B

Second highest priority agents include those that:

- are moderately easy to disseminate;
- result in moderate morbidity rates and low mortality rates; and
- require specific enhancements of Health Canada diagnostic capacity and enhanced disease surveillance

Examples:*Brucellosis**Food safety Threats (e.g., Salmonella, Escherichia Coli)***Category C**

Third highest priority agents include emerging pathogens that could be engineered for mass dissemination in the future because of:

- availability;
- ease of production and dissemination; and
- potential for high morbidity and mortality rates and major health impact

Examples:*Emerging infectious diseases such as Nipah virus and Hantavirus***1.4. Support Equipment and Supplies****Material Safety Data Sheets (MSDS) / Safety Data Sheets (SDS)**

When responding to a spill, staff should check departmental Material Safety Data Sheet (MSDS)/Safety Data Sheet (SDS) for possible hazardous substances located in the area.

The MSDS/SDS Master list is maintained by Materials Management. Copies are located in:

- Intranet
- Occupational Health, Safety & Wellness

Hazardous Spill Containment Kit

Hazardous spill containment kits are located in:

- Environmental Services Department – ext. 7250
- Connell 0 hallway
- Receiving – ext. 4024

Mercury Spill Kit

A kit specific to dealing with mercury spills is located in the Maintenance department.

Spill Cleanup

It is the responsibility of the end-user in consultation with the Operations Officer, to arrange proper cleanup of any and all hazardous spills in accordance with departmental protocol or MSDS/SDS procedures. Environmental Services will not clean up any spill; they will only act in a supportive role either by assisting in containing a spill or cleaning the area after the initial clean up process has been completed.

1.5. Common Sources of Hazardous Spills**1.5.1. Mercury (AKA: Quicksilver, Hydragyrum)**

Mercury, (elemental abbreviation Hg) is one of the few metals which are in a liquid phase at room temperature.



There are several medical devices that the hospital has which may contain mercury. E.g. thermometers, sphygmomanometer gauges, fluorescent light bulbs (including compact and projector) etc. Typically, these items contain very small amounts of mercury, and would not require the use of Code Brown if they were to spill. However, specific steps need to be taken in order to isolate, clean and dispose of mercury safely.

The main effects of mercury exposure to humans are understood to be neurological, renal (kidney), cardiovascular and immunological impacts. Chronic exposure to mercury can cause damage to the brain, spinal cord, kidneys, liver and developing fetus. Exposure to mercury while in the womb can lead to neurodevelopmental problems in children. Mercury can impair the ability to feel, see, move and taste, and can cause numbness and tunnel vision. Long-term exposure can lead to progressively worse symptoms and ultimately personality changes, stupor, and in extreme cases, coma or death. Recent findings have described adverse cardiovascular and immune system effects at very low levels.¹

In the unlikely event of a mercury spill of greater than 2 tbsps, a Code Brown should be activated. An external company may be contacted by the Incident Command Centre to arrange for mercury cleanup and disposal.

To prevent mercury spills, the facility has endeavored to replace mercury containing devices with non-mercury containing equipment whenever possible. The fluorescent bulbs in use have lowest amount of mercury possible but still present a hazard.

Clean-up of the spill should be done with the mercury spill kit. A normal vacuum should NEVER be used to clean up mercury as it can disperse harmful mercury vapours. Proper PPE (Personal Protective Equipment) should always be worn when mercury is involved. This should include nitrile gloves, eye protection, closed toe footwear, and a gown. Respiratory protection is not routinely required since the clean up procedures involve the use of a vapour suppressing powder and amalgamation powder, both of which reduce aerosolizing of mercury vapours.

1.5.2. Raw Sewage Spill

Any raw sewage spill represents a biological hazard. In sufficient quantities (greater than 4 litres) raw sewage spills represent a Code Brown. To prevent raw sewage spills care should always be taken to ensure that materials not compatible with the hospital sewage system are disposed of properly. When dealing with large volumes of contaminated water, reference the Flood plan for additional actions and remediation procedures.

1.5.3. Cytotoxic Drugs (AKA: Antineoplastics)

The term cytotoxic drug refers to a drug or enzyme that is administered to plants, animals or humans for the specific purpose of altering the metabolic process or possessing a specific destructive action on cells.

Standard precautions and cytotoxic precautions are used when handling blood, emesis, or excreta of a patient who has received hazardous drugs within 7 days.

Risks from exposure are based on the inherent toxicities of the drugs. The risks include:

- Chromosomal changes (genotoxicity).
- Fertility impairment (teratogenicity).
- Cancer (carcinogenicity).
- Organ toxicity thus causing organ damage.
- Acute symptoms from accidental exposure in poorly ventilated areas such as headache, nausea and dizziness.

Types of cytotoxic drugs include:

- Chemotherapy (e.g. chlorambucil, cyclophosphamide, cisplatin, dacarbazine, doxorubicin).

¹ Environment Canada – Mercury and the Environment, 2004

- Biotherapy (e.g. interferons).
- Antiviral agents (e.g. ganciclovir).
- Immunosuppressive agents.

NOTE: All investigational agents should be regarded as potentially hazardous.

Safe practices are key when cytotoxic drugs are being utilized:

- HEPA-filtered Biological safety cabinet pharmacies (externally exhausted, if possible) to store the drugs.
- Personal Protective Equipment
- Double glove
- Chemoprotectant gown
- Face mask (N95 respirator to be worn when cleaning up spills)
- Face shield or goggles (worn when there is a possibility of splashing)

1.6. Incident Command Centre **Weekdays 0800 – 1600 hours**

Upon receiving notice of a major hazardous spill Protection Services will immediately establish an Incident Command Centre² within the Security Office on Dietary 1. The Director of Protection Services/Delegate will assume command and coordinate the response activities.

The person acting as the Incident Commander (e.g., Director, Protection Services/Delegate) must be prepared to transfer command to a higher authority (HAZMAT Team, Fire Department, etc.), or apply unified command³.

1.7. After-Hours Management

The organization employs an after-hours support model that combines on-site and on-call roles outside normal working hours.

1. Administrative Coordinator (ACO)

- The organization will share one on-site manager (Administrative Coordinator (ACO)) available for both main sites and satellites supported by an on-call escalation as needed for issues of great complexity or risk

2. Administrative Director on Call

- In the event there is a major issue of great risk or complexity that cannot be handled by the ACO they will escalate to the Director on Call (DOC)
 - All those in a director position that have a clinical background will serve as Director on Call
 - The DOC acts on behalf of the CEO (or delegate) in their absence and also is a resource to assist the Administrative Coordinator as circumstances require and as outlined in the hospital policies

² "Incident Command Centre" is a centrally located space available to coordinate and manage resources.

"Incident Command" reports to the Hospital Emergency Operations Centre (if active).

³ "Unified Command" is a team effort which allows all departments/agencies with responsibility for the incident, to jointly provide management direction to an incident through a common set of incident objectives and strategies established at the command level.

3. Executive on Call

- If there is a major issue that cannot be immediately handled by the DOC, then the DOC consults with the Executive On-call to ensure appropriate resolution of the issue

2.0 Response & Recovery – All Staff

Response

2.1. Upon Occurrence or Discovery of a Chemical Spill

If the spill is minor (i.e. less than 4 litres) - A CODE BROWN IS NOT NECESSARY:

- ☐ Look for injured persons in the affected area and remove them to fresh air if possible to do so without becoming a casualty, activate a **Code 99 (Medical Emergency)** if required
- ☐ Isolate and contain the spill by damming and closing doors
- ☐ Assess the severity and size of the spill to determine whether it is minor or major
- ☐ Clean up the spill, according to departmental protocol or **MSDS/SDS** instructions
- ☐ If assistance is required to contain the spill or to mop the area after the initial clean up notify:
 - ☐ Environmental Services (**2309 or Vocera**) to obtain the spill kit for containment
 - ☐ Ensure that MSDS/SDS instructions for decontamination and disposal are followed
- ☐ If chemical has been spilled on a person's skin:
 - ☐ Move the person to the nearest shower, they should remove all clothing and shower for 15 minutes with soap and water.
 - ☐ Change into uncontaminated clothing and report to the Emergency Department immediately
- ☐ If chemical has been spilled in a person's eyes, or has been ingested or inhaled, review first aid measures (i.e. copious amounts of water to the eyes for a minimum of 15 minutes, etc.) and have that person report to the Emergency Department immediately
- ☐ Contact Occupational Health, Safety & Wellness/Delegate

If the spill is major (i.e. greater than 4 litres), or, the chemical is unknown:

- ☐ Initiate a limited evacuation of the immediately threatened area
- ☐ **Pull the nearest fire alarm pull station**
- ☐ Notify Switchboard (**4444**) providing:
 - ☐ Nature of the emergency (e.g. We have had a major chemical spill and have activated the fire alarm system)
 - ☐ Your name and title
 - ☐ Location
 - ☐ Name of chemical spilled if known
- ☐ Move to a safe place near the area and await the arrival of Security and the Fire Department and provide them with MSDS/SDS information on the chemical spilled
- ☐ Be prepared to provide detailed information to the Incident Command Centre
- ☐ Ensure the MSDS/SDS instructions for decontamination and disposal are followed
- ☐ If chemical has been spilled on a person's skin:

- ☐ Move the person to the nearest shower, they should remove all clothing and shower for 15 minutes with soap and water.
- ☐ Change into uncontaminated clothing and report to the Emergency Department immediately
- ☐ If chemical has been spilled in a person's eyes, or has been ingested or inhaled, review first aid measures (i.e. copious amounts of water to the eyes for a minimum of 15 minutes, etc.) and have that person report to the Emergency Department immediately
- ☐ Contact Occupational Health, Safety & Wellness/Delegate

2.1.1. Procedure If You Discover a Mercury Spill (Less Than 2 Tbsp)

Monday – Friday during regular hours

- ☐ Turn off fans and room air conditioners
- ☐ Close the door to the affected area and restrict access to required staff only
- ☐ Environmental Service (**2309 or Vocera**) and request mercury spill kit
- ☐ Immediately notify the Maintenance (**4030**) of the mercury spill and request their assistance in:
 - ☐ Controlling and cleaning up the spill
 - ☐ Shutting down HVAC to the area of the spill
- ☐ Notify Security **4142**
- ☐ Notify Area Program Manager/Delegate
- ☐ Notify Occupational Health, Safety, & Wellness (**4389**)
- ☐ If the mercury beads have made contact with the employee's skin or eyes, immediately implement first aid measures (i.e. copious amounts of water to the eyes for a minimum of 15 minutes). Should treatment beyond first aid only and/or consultation be required, the exposed employee should report to the Occupational Health, Safety & Wellness department during normal business hours or the Emergency Department after hours

After-hours, Weekends & Statutory Holidays

- ☐ Turn off fans and room air conditioners
- ☐ Immediately notify the Maintenance On-Call of the mercury spill and request their assistance in:
 - ☐ Controlling and cleaning up the spill
 - ☐ Shutting down HVAC to the area of the spill
- ☐ Notify Security **4142**
- ☐ Close the door to the affected area and restrict access to required staff only
- ☐ Notify Administrative Coordinator (**7021**)
- ☐ Notify Occupational Health, Safety & Wellness Manager 1630-0700 (**via Switchboard**)

- ☐ If the mercury beads have made contact with the employee's skin or eyes, immediately implement first aid measures (i.e. copious amounts of water to the eyes for a minimum of 15 minutes). Should treatment beyond first aid only and/or consultation be required, the exposed employee should report to the Occupational Health, Safety & Wellness department during normal business hours or the Emergency Department after hours

2.1.2. Procedure If You Discover a Mercury Spill (Greater Than 2 Tbsp)

- ☐ Wash hands and other exposed areas with soap and water immediately
- ☐ If clothing is contaminated, remove clothing as soon as possible and place in a plastic bag; shower with soap and water
- ☐ Notify Switchboard @ **4444** providing:
 - ☐ Name and title
 - ☐ Location
 - ☐ Give details regarding mercury spill
- ☐ Turn off fans and room air conditioners
- ☐ List other people who have been in the immediate area for follow up if required
- ☐ Notify:
 - ☐ Security if assistance with isolation of the area is required (**4142**)
 - ☐ Affected Area Manager/Administrative Coordinator/Delegate
 - ☐ Occupational Health, Safety & Wellness

2.1.3. Procedure If You Discover a Cytotoxic Drug Spill (Code Brown)

- ☐ Initiate a limited evacuation of the contaminated area of any unnecessary, uncontaminated staff
- ☐ Isolate and contain the spill by damming and closing doors
- ☐ Notify Switchboard (**4444**) providing;
 - ☐ Name and title
 - ☐ Location
 - ☐ Nature of emergency
 - ☐ Name of cytotoxic drug spilled, if known
- ☐ Notify:
 - ☐ Security if assistance is needed to isolate the area (**4142**)
 - ☐ Occupational Health, Safety & Wellness
 - ☐ Environmental Services (**7250**) regarding the location and extent of the spill
- ☐ Be prepared to provide detailed information to the Incident Command Centre
- ☐ Ensure the instructions for decontamination and disposal are followed

- ☐ If drug has been spilled on a staff person's skin or in eyes, or has been ingested or inhaled, review first aid measures (i.e. copious amounts of water to the eyes for a minimum of 15 minutes, etc.) and have that person immediately report to the Emergency Department
- ☐ **Instructions for Spill Clean Up:**
 - ☐ Instructions for use of the spill kit are in the Parental I.V. Therapy Manual under "Appendix Q "Safe Handling Procedure For Hazardous (Cytotoxic) Drug Spills
 - ☐ Obtain a hazardous drug spill kit. Replacement kits are available from Stores
 - ☐ Don Personal Protective Equipment (PPE) for managing spills, including a disposable chemotherapy gown, an N95 respirator (that you've been fit tested on), shoe covers, safety goggles, and double glove with nitrile gloves.
*Note: the N95 respirator provided in the chemotherapy spill kit are **NOT** to be used.*
 - ☐ Dispose of gloves, leaking syringes or vials, gowns, etc. that are contaminated with hazardous drug in a red cytotoxic waste container. Leaking syringes, bags or vials should first be placed in a plastic zip-lock bag and sealed before prior to putting in the cytotoxic waste container. Place contaminated disposable items into Hazardous (Cytotoxic) waste container
 - ☐ Place all contaminated non-disposable items into double laundry bag or double clear bags and label with Hazardous (Cytotoxic) stickers or mark these bags as Hazardous (Cytotoxic)
 - ☐ Use 4" x 4" gauze squares and/or 16"x21" prep mat, plastic side up to wipe up the spill and dispose of in the hazardous waste bags in kit.
 - ☐ Use Surface Safe to decontaminate the area. One double packet is required for every 2 square feet (0.19 m²) area. Carefully open packet number 1 and apply the pre-moistened towelette vigorously to the area to be treated. Allow to set for at least 30 seconds. Open packet number 2 and apply the pre-moistened towelette to the same area. (Streaking or a salt residue may appear after this application).
 - ☐ Dispose of all cleaning materials, and contaminated gloves, gowns, shoe covers, etc. in the disposal bag found in the spill kit. Place this bag in a red cytotoxic waste container. Ensure all non-disposable items are placed into a double clear bag & labeled as "Cytotoxic".
- ☐ **Hard Surfaces:**
 - ☐ Clean up spill as per above procedures AND
 - ☐ Place contaminated mats in yellow Chemo Waste Bag

- ☐ Use disposable wiper towels to clean the spill area 3 times with detergent solution followed by clean water. Clean from least to the most contaminated areas
- ☐ Use fresh detergent solution followed by clean water to wash items located in the spill areas (i.e. pump) and repeat washing
- ☐ **For carpeted surfaces:**
 - ☐ Clean up spill as per above procedures AND
 - ☐ Notify the Maintenance to organize replacement of carpet tiles affected by the spill.
 - ☐ Remove PPE in this order: Remove outer gloves and gown (untie the ties, remove gown and outer gloves concurrently, rolling them into a small bundle to be disposed). Remove shoe covers and discard gloves (glove to glove, skin to skin). Perform hand hygiene. Remove safety glasses and respirator. Perform Hand Hygiene.
 - ☐ Notify Central Processing **(4020)** and Portering **(4240)** for collection of non-disposable items (e.g. pumps)

2.2. Upon the Occurrence or Discovery of a Biological Spill

If the spill is minor (i.e. less than 4 litres) - A CODE BROWN IS NOT NECESSARY:

All patient care staff are asked to report back to their units, all ancillary staff (Environmental Services, Portering, etc.) are to report to their departments.

- ☐ Clean up the spill, according to departmental protocol or **MSDS/SDS** instructions, wearing the appropriate personal protective equipment
- ☐ If assistance is required to contain the spill or to mop the area after the initial clean up notify:
 - ☐ Environmental Service **(2309 or Vocera)** to obtain the spill kit for containment
 - ☐ Occupational Health, Safety & Wellness **(4389)**
- ☐ Ensure that **MSDS/SDS** instructions for decontamination and disposal are followed
- ☐ If a biological agent has been spilled on a person's skin:
 - ☐ Move the person to the nearest shower, they should remove all clothing and shower for 15 minutes with soap and water
 - ☐ Change into uncontaminated clothing and report to the Emergency Department immediately
- ☐ If a biological agent has been spilled in a person's eyes, or has been ingested or inhaled, review first aid measures (i.e. copious amounts of water to the eyes for a minimum of 15 minutes, etc.) and have that person report to the Emergency Department immediately
- ☐ Contact Occupational Health, Safety & Wellness/Delegate

2.2.1. For raw sewage spills/undetermined fluid leaks less than 4 litres:

- ☐ Notify:
 - ☐ Security Operations Centre at **(4142)** providing:
 - ☐ Name and position
 - ☐ Location
 - ☐ Give details regarding sewage spill or undetermined fluid leak
 - ☐ If assistance is required to contain the spill ask Environmental Service **(2309 or Vocera)** to obtain the spill kit for containment
 - ☐ Regular hours notify Affected Area Manager/Delegate⁴
 - ☐ After hours notify Administrative Coordinator **(7021)**
 - ☐ If the sewage spill has been spilled on a person's skin or in eyes, or has been ingested or inhaled, implement first aid measures as necessary:
 - ☐ Wash hands and other exposed areas with soap and water immediately
 - ☐ If clothing is contaminated, remove clothing as soon as possible and place in a plastic bag; shower with soap and water
 - ☐ Flush eyes with copious amounts of water for a minimum of 15 minutes
 - ☐ Have the affected person report to the Occupational Health, Safety & Wellness department during normal business hours or the Emergency Department after hours

2.2.2. For Raw Sewage Spills Greater Than 4 Litres (Code Brown):

- ☐ **When dealing with large volumes of contaminated water, reference the Flood plan for additional actions and remediation procedures**
 - ☐ Notify **Switchboard (4444)** providing:
 - ☐ Name and position
 - ☐ Location
 - ☐ Nature of emergency
- ☐ Turn off fans and room air conditioners
- ☐ Discontinue treatment and initiate a limited evacuation of the immediately threatened area
 - ☐ For dialysis patients, discuss treatment options with Charge Nurse and Nephrologist
 - ☐ Take direction from Infection Control representatives regarding continuation of duties
 - ☐ Wash hands and other exposed areas with soap and water immediately
 - ☐ If clothing is contaminated, put on N95 respirator and remove clothing as soon as possible and place in a plastic bag; shower with soap and water; the clothing may be

⁴ Delegate is the next level of appointed authority; in this case, the Charge Nurse.

taken away for testing to identify the substance and biological agents they were exposed to

- ☐ In the case of full body contamination, report to the Emergency Department for showering and decontamination
- ☐ Notify:
 - ☐ Security Operations Centre **4142**
 - ☐ Affected Area Manager/Delegate
- ☐ List other people who have been in the immediate area for follow up if required

If the spill is major (i.e. greater than 4 litres), or, the biological agent is unknown:

- ☐ **When dealing with large volumes of contaminated water, reference the Flood plan for additional actions and remediation procedures**
- ☐ Infection Control and Occupational Health, Safety & Wellness must be notified immediately by medical staff, nursing staff or the health unit if there is any suspicion or indication of exposure of staff or patients to an infectious agent due to a bio-terrorist act

In the event that you are aware of a non-controlled biological agent, whether by spill or attack (i.e. suspicious powder found in mail):

- ☐ If the substance is large in quantity or unable to be contained (e.g. airborne dusts) evacuate the area immediately
- ☐ Notify Switchboard @ **4444** providing:
 - ☐ Name and title
 - ☐ Location
 - ☐ Nature of emergency
- ☐ Turn off fans and room air conditioners
- ☐ Leave the room, close the door and keep others from entering the room
- ☐ Wash hands and other exposed areas with soap and water immediately
- ☐ If clothing is contaminated, put on an N95 respirator and remove clothing as soon as possible and place in a plastic bag; shower with soap and water; the clothing may be taken away for testing to identify the substance and biological agents
 - ☐ In the case of full body contamination, move the person to the nearest shower, they should remove all clothing and shower for 15 minutes with soap and water
 - ☐ Change into uncontaminated clothing and report to the Emergency Department immediately
- ☐ List other people who have been in the immediate area for follow up if required

2.3. Upon Occurrence or Discovery of a Radiological Spill

- ☐ Look for injured persons in the affected area and remove them to fresh air if possible to do so without becoming a casualty, activate a Code 99 (Medical Emergency) if required

- ☐ Isolate and contain the spill by damming and closing doors
- ☐ Initiate a limited evacuation of the contaminated area of unnecessary, uncontaminated staff
- ☐ If qualified, measure the level of radioactivity in the spill

If the spill is minor (any size but displays less than 5 ALI) - A CODE BROWN IS NOT NECESSARY:

- ☐ Notify:
 - ☐ Environmental Service **(2309 or Vocera)** to obtain the spill kit for containment
 - ☐ Radiation Protection Officer
 - ☐ Ensure that decontamination procedures are followed

If the spill is major (greater than 5 ALI):

- ☐ Notify Switchboard **(4444)** providing:
 - ☐ Name and title
 - ☐ Location
 - ☐ Nature of emergency
- ☐ Move to a safe place near the area and await the arrival of the Radiation Protection Officer

If not qualified to measure the level of radioactivity in the spill:

- ☐ Notify Switchboard **(4444)** providing:
 - ☐ Name and title
 - ☐ Location
 - ☐ Nature of emergency
- ☐ During working hours (Monday – Friday 0800 – 1600), the Radiation Safety Officer **(4536) or (6819)**
- ☐ After working hours, the Nuclear Medicine Technologist **(613-536-7583)**
- ☐ Move to a safe place near the area and await the arrival of Security and the Radiation Safety Officer or Nuclear Medicine Technologist
- ☐ If radioactive material has been spilled on a person's skin or in eyes, or has been ingested or inhaled, review first aid measures (i.e. copious amounts of water to the eyes for a minimum of 15 minutes, etc.) and have that person report to the Emergency Department immediately
- ☐ Contact Occupational Health, Safety & Wellness/Delegate

2.4. Procedure If You Hear a Code Brown Announced Overhead

2.4.1. All Hospital Staff in the Affected Area

- ☐ Cease all unnecessary activity
- ☐ Move self and other staff to a safe location

2.4.2. All Hospital Staff Not In the Affected Area

- ☐ **Do not call Switchboard unless it is urgent**
- ☐ **Do not approach the area**, unless you are involved with the response
- ☐ Continue with normal duties unless directed otherwise

Recovery**2.5. Upon Notification that the Crisis Has Concluded****If the spill was minor:**

- ☐ If Security was contacted be prepared to provide a statement to the attending Security Officer
- ☐ Ensure any required documentation is completed and delivered to Occupational Health, Safety & Wellness

If the spill was major:

- ☐ If you are the initiator of the Code Brown be prepared to provide a statement to the attending Security Officer
- ☐ Ensure any required documentation is completed and delivered to Occupational Health, Safety & Wellness
- ☐ Ensure a Safe Report is completed on the incident
- ☐ Should an employee have an unprotected exposure to mercury beads, they should immediately flush the area with copious amounts of water, report this to their Supervisor/Manager, and complete an Employee Incident Report. Should further treatment and/or consultation be required, visit the Occupational Health, Safety & Wellness department during business hours or the Emergency Department after hours.
- ☐ Be prepared to participate in a debriefing session, if required
- ☐ Upon hearing the “All Clear” resume normal duties

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3.0 Response & Recovery – Switchboard

Response

3.1. Upon Notification of an Unknown Spill

- ☐ Announce overhead three times “**CODE BROWN (location)**”
 - ☐ **If the fire alarm has been activated but a Code Brown is confirmed as the reason, announce the following once:**
 - ☐ **“Attention, the fire alarm has been activated to shut down ventilation for a Code Brown on (location).”**
- ☐ Refer any media inquiries to the Strategy Management & Communications
- ☐ Obtain the location and contact number for the Incident Command Centre from Security/Affected Area Manager/Delegate as soon as possible

Notify:

Monday to Friday (During normal business hours 0800 – 1600)

- ☐ Security Operations Centre **4142**
- ☐ Affected Area Manager/Delegate
- ☐ Administration
- ☐ Occupational Health, Safety & Wellness **4389**

Monday – Friday (After normal business hours), Weekends & Holidays

- ☐ Security Operations Centre **4142**
- ☐ Environmental Services **7250**
- ☐ Occupation Health & Wellness On-Call Person
- ☐ Administrative Coordinator at **7021**

3.2. Upon Notification of a Major Chemical Spill

- ☐ Announce overhead three times “**CODE BROWN (location)**”
 - ☐ **If the fire alarm has been activated but a Code Brown is confirmed as the reason, announce the following once:**
 - ☐ **“Attention, the fire alarm has been activated to shut down ventilation for a Code Brown on (location).”**
- ☐ Refer any media inquiries to the Strategy Management & Communications
- ☐ Obtain the location and contact number for the Incident Command Centre from Security/Affected Area Manager/Delegate as soon as possible

Monday to Friday (During normal business hours 0800 – 1600)

- ☐ Security Operations Centre **4142**

- ☐ Affected Area Manager/Delegate
- ☐ Manager of Environmental Services **2309**
- ☐ Occupational Health, Safety and Wellness **4389**
- ☐ Infection Control **4015**
- ☐ Risk Management **4496**
- ☐ President & CEO **2341**

Monday – Friday (After normal business hours), Weekends & Holidays

- ☐ Security Operations Centre **4142**
- ☐ Environmental Services **7250**
- ☐ Occupation Health & Wellness On-Call Person
- ☐ Administrative Coordinator **7021**

3.3. Upon Notification of a Major Biological Spill

- ☐ Announce overhead three times “**CODE BROWN (location)**”
- ☐ Refer any media inquiries to the Strategy Management & Communications
- ☐ Obtain the location and contact number for the Incident Command Centre from Security/Affected Area Manager/Delegate as soon as possible

Notify:

Monday to Friday (During normal business hours 0800 – 1600)

- ☐ Security Operations Centre **4142**
- ☐ Affected Area Manager/Delegate
- ☐ Occupational Health, Safety & Wellness **4389**
- ☐ Manager of Environmental Services **2309**
- ☐ Infection Control **4015**
- ☐ Risk Management **4496**
- ☐ President & CEO **2341**
- ☐ On-call Infectious Disease Physician

Monday to Friday (After normal business hours), Weekends and Holidays

- ☐ Security Operations Centre **4142**
- ☐ Environmental Services **7250**
- ☐ Administrative Coordinator at **7021**
- ☐ Occupation Health & Safety On-Call Person
- ☐ Infection Control Practitioner
- ☐ On-call Infectious Disease Physician

3.4. Upon Notification of a Major Radiological Spill

- ☐ Announce overhead three times “**CODE BROWN (location)**”
- ☐ Refer any media inquiries to the Strategy Management & Communications
- ☐ Obtain the location and contact number for the Incident Command Centre from Security/Affected Area Manager/Delegate as soon as possible

Notify:**Monday to Friday (During normal business hours 0800 – 1600)**

- ☐ Security Operations Centre **4142**
- ☐ Radiation Safety Officer **4536 or 6819**
- ☐ President & CEO **2341**
- ☐ Affected Area Manager/Delegate
- ☐ Manager of Environmental Services **2309**
- ☐ Occupational Health, Safety & Wellness **4389**
- ☐ Infection Control **4015**
- ☐ Risk Management **4496**

Monday to Friday (After normal business hours), Weekends and Holidays

- ☐ Security Operations Centre **4142**
- ☐ Administrative Coordinator/Delegate
- ☐ Nuclear Medicine Technologist On-Call at pager **613-536-7583**
- ☐ Environmental Services **7250**
- ☐ Administrative Coordinator at **7021**
- ☐ Occupation Health & Wellness On-Call Person

Recovery**3.5. Upon Notification that the Crisis Has Concluded**

- ☐ Announce over the public address system three times, “**CODE BROWN, ALL CLEAR**”
- ☐ Refer any media inquiries to the Strategy Management & Communications

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4.0 Response & Recovery – Protection Services

Response

Note: For Unknown Spills, Respond Using 4.2 Upon Receiving The Code Brown (Chemical Spill) Notification

4.1. Upon Notification of a Minor Chemical Spill (Including Minor Mercury or Cytotoxic Spills)

Security Operations Centre Operator

Notify:

- ☐ Shift Supervisor, if he/she is not already aware

Security Shift Supervisor

- ☐ Proceed to the site and assist as necessary
- ☐ If entering the affected area, don appropriate Personal Protective Equipment (gown, gloves, goggles, etc.)
- ☐ Notify the Security Operations Centre **(4142)** – **be sure to say the spill is being considered minor**
- ☐ Obtain:
 - ☐ Name and title of person reporting the spill
 - ☐ Name of substance believed to have been spilled
 - ☐ Details of the cause of the spill
- ☐ Notify the Security Operations Centre should the incident escalate **(4142)**

Security Officers

- ☐ Assist as required with the isolation and containment of the spill
- ☐ Obtain and deliver the Hazardous Spill Containment Kit/Mercury Spill Kit to the site, if not already delivered by Environmental Services

4.2. Upon Receiving the Code Brown - Major Chemical Spill Notification

Security Operations Centre Operator

Notify:

- ☐ Director of Protection Services/Delegate
- ☐ Security Shift Supervisor
- ☐ Environmental Services
- ☐ During working hours:
 - ☐ Maintenance
- ☐ After working hours:
 - ☐ Maintenance On-Call (through the Switchboard)

- ☐ Emergency Management On-Call person

Security Shift Supervisor

- ☐ If the fire alarm has been activated to shut down ventilation contact Switchboard to confirm it is for the Code Brown
 - ☐ Request Security Operations Centre to contact Fire Department at 911 to tell them the fire alarm activation was due to the Code Brown/ventilation shut down
 - ☐ Ensure a Security Officer is on-route to meet the Fire Department at the designated entrance
- ☐ If entering the affected area, don appropriate Personal Protective Equipment (gown, gloves, goggles, etc.)
- ☐ Request an Officer to obtain and deliver the **Hazardous Spill Containment Kit** to the site, if not already delivered by Environmental Services
- ☐ Assist as required with the isolation and containment of the spill, under direction of the HAZMAT team and the Fire Department

WHEN IT IS SAFE TO DO SO

- ☐ Ensure an Officer has proceeded to the spill site and obtained:
 - ☐ Name and position of person reporting the spill
 - ☐ Name of substance believed to have been spilled
 - ☐ Details of the cause of the spill
- ☐ Be prepared to transfer command to a higher authority (Director of Protection Services, Director/Executive On-Call, etc.)

Security Officers

- ☐ Notify the Security Operations Centre **4142**
- ☐ If entering the affected area, don appropriate Personal Protective Equipment (gown, gloves, goggles, etc.)
- ☐ If the fire alarm has been activated to shut down ventilation, meet the Fire Department at the designated emergency services entrance
- ☐ Obtain and deliver the Hazardous Spill Containment Kit/Mercury Spill Kit to the site, if necessary
- ☐ Await instruction from the Security Shift Supervisor

4.3. Upon Receiving a Minor Biological Spill Notification**Security Operations Centre**

- ☐ Dispatch a Security Officer to proceed to the spill site
- ☐ Notify:
 - ☐ Security Shift Supervisor
 - ☐ Environmental Services

Security Shift Supervisor

- ☐ Ensure an Officer has proceeded to the spill site and obtained:
 - ☐ Name and position of person reporting the spill
 - ☐ Name of substance believed to have been spilled
 - ☐ Details of the cause of the spill
- ☐ If entering the affected area, don appropriate Personal Protective Equipment (gown, gloves, goggles, etc.)
- ☐ Request an Officer to obtain and deliver the **Hazardous Spill Containment Kit** to the site, if not already delivered by Environmental Services
- ☐ Assist as required with the isolation and containment of the spill

Security Officer

- ☐ If entering the affected area, don appropriate Personal Protective Equipment (gown, gloves, goggles, etc.)
- ☐ Proceed to the site and obtain:
 - ☐ Name and position of person reporting the spill
 - ☐ Name of substance believed to have been spilled
 - ☐ Details of the cause of the spill
- ☐ Assist as required with the isolation and containment of the spill

4.4. Upon Receiving the Code Brown (Biological Spill) Notification**4.4.1. For Raw Sewage Spills:****Security Operations Centre**

- ☐ Dispatch a Security Officer to proceed to the spill site
- ☐ Notify:
 - ☐ Security Shift Supervisor
 - ☐ During regular hours:
 - ☐ Maintenance **4030**
 - ☐ Infection Control **4015**
 - ☐ After hours:
 - ☐ On-call Maintenance person (through the Switchboard)
 - ☐ On-call Infection Control Practitioner (through the Switchboard)
 - ☐ Emergency Management On-Call person

Security Shift Supervisor

- ☐ Ensure an Officer has proceeded to the spill site and obtained:
 - ☐ Name and position of person reporting the spill
 - ☐ Name of substance believed to have been spilled

- ☐ Details of the cause of the spill
- ☐ If entering the affected area, don appropriate Personal Protective Equipment (gown, gloves, goggles, etc.)
- ☐ Request an Officer to obtain and deliver the **Hazardous Spill Containment Kit** to the site, if not already delivered by Environmental Services
- ☐ Assist as required with the isolation and containment of the spill, under direction of Infection Control

Security Officer

- ☐ If entering the affected area, don appropriate Personal Protective Equipment (gown, gloves, goggles, etc.)
- ☐ Proceed to the site and obtain:
 - ☐ Name and position of person reporting the spill
 - ☐ Name of substance believed to have been spilled
 - ☐ Details of the cause of the spill
- ☐ Assist as required with the isolation and containment of the spill, under direction of Infection Control

4.4.2. For Any Other Major Biological Spill:**Security Operations Centre**

- ☐ Dispatch a Security Officer to proceed to the spill site
- ☐ Notify:
 - ☐ Security Shift Supervisor
 - ☐ During regular hours:
 - ☐ Maintenance **4030**
 - ☐ Infection Control **4015**
 - ☐ After hours:
 - ☐ Maintenance On-call (through the Switchboard)
 - ☐ Infection Control Practitioner On-call (through the Switchboard)
- ☐ Emergency Management On-Call person

Security Shift Supervisor

- ☐ Ensure an Officer has proceeded to the spill site and obtained:
 - ☐ Name and position of person reporting the spill
 - ☐ Name of substance believed to have been spilled
 - ☐ Details of the cause of the spill
- ☐ If entering the affected area, don appropriate Personal Protective Equipment (gown, gloves, goggles, etc.)

- ☐ Request an Officer to obtain and deliver the **Hazardous Spill Containment Kit** to the site, if not already delivered by Environmental Services
- ☐ Assist as required with the isolation and containment of the spill, under direction of Infection Control

Security Officers

- ☐ If entering the affected area, don appropriate Personal Protective Equipment (gown, gloves, goggles, etc.)
- ☐ Proceed to the site and obtain:
 - ☐ Name and position of person reporting the spill
 - ☐ Name of substance believed to have been spilled
 - ☐ Details of the cause of the spill
- ☐ Assist as required with the isolation and containment of the spill, under direction of Infection Control

4.5. Upon Receiving the Code Brown (Radiological Spill) Notification**Security Operations Centre Operator****Notify:**

- ☐ Director of Protection Services/Delegate
- ☐ Security Shift Supervisor, if he/she is not already aware

Security Shift Supervisor

- ☐ Direct the on-site Officer to assist with the set-up of the Incident Command Centre if you are not immediately available
- ☐ Assist the Affected Area Manager and/or Administrative Coordinator/Delegate with establishing the Incident Command Centre in the Security Office – Dietary 1 – **refer to Incident Command Centre Section 5.4 Upon Receiving The Code Brown (Radiological Spill) Notification**
- ☐ If entering the affected area, don appropriate Personal Protective Equipment (gown, gloves, goggles, etc.)
- ☐ Be prepared to transfer command to a higher authority (Director of Protection Services, Director/Executive On-Call, etc.)
- ☐ Assist as required with the isolation and containment of the spill, under direction of the Radiation Protection Officer

Security Officer

- ☐ Notify the Security Operations Centre **4142**

- ☐ If entering the affected area, don appropriate Personal Protective Equipment (gown, gloves, goggles, etc.)
- ☐ **Cautiously**, proceed to the site and obtain:
 - ☐ Name and title of person reporting the spill
 - ☐ Name of substance believed to have been spilled
 - ☐ Details of the cause of the spill
- ☐ Obtain and deliver the Hazardous Spill Containment Kit to the site, if not already delivered by Environmental Services
- ☐ Await instruction from the Security Shift Supervisor

Recovery

4.6. Upon Notification that the Crisis Has Concluded

Security Operations Centre Operator

Notify:

- ☐ Director of Protection Services/Delegate, if not already aware
- ☐ Security Shift Supervisor, if he/she is not already aware

Security Shift Supervisor

- ☐ Ensure that a comprehensive electronic occurrence report is filed immediately
- ☐ Participate in a debriefing session

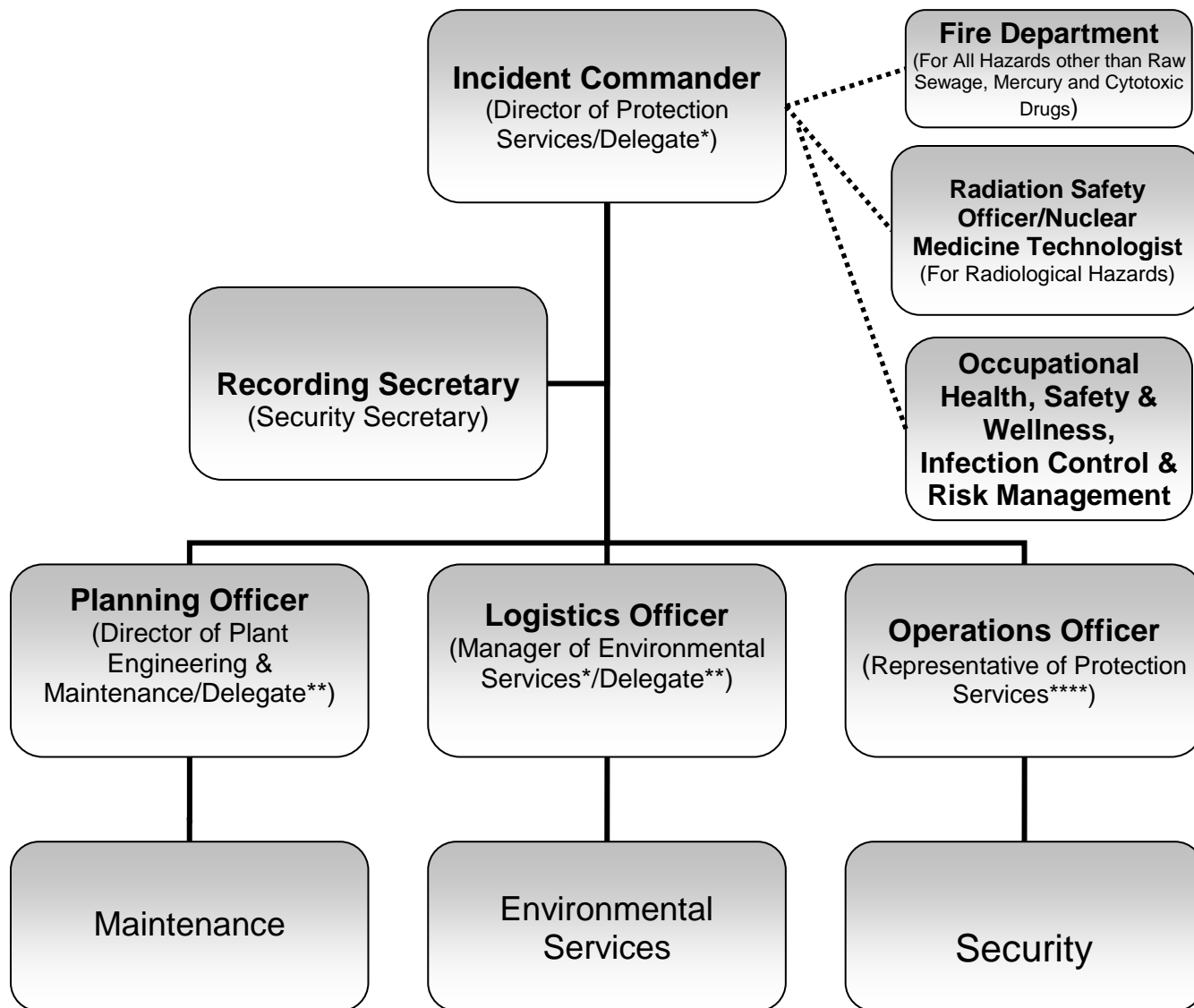
Security Officers

- ☐ Await direction from the Incident Commander or Security Shift Supervisor
- ☐ Participate in a debriefing session

5.0 Response & Recovery – Incident Command Centre

Response

5.1. Incident Management System



* Delegate is the next level of appointed authority. In this case, it may be but is not limited to: the Manager of Emergency Management, Parking & Security Operations Centre; Manager of Security, Life Safety & Access Control, or Security Supervisor

** Delegate is the next level of appointed authority. In this case, the Manager of Plant Engineering and Maintenance

*** Delegate is the next level of appointed authority. In this case, the Supervisor of Environmental Services

**** Representative of Protection Services may be but is not limited to: Director of Protection Services; Manager of Emergency Management, Parking & Security Operations Centre; Manager of Security, Life Safety & Access Control, or Security Supervisor

5.2. Upon Receiving the Code Brown (Major Chemical Spill) Notification**Incident Commander – Director of Protection Services/Delegate**

- ☐ Establish the Incident Command Centre (Security office on Dietary 1)
- ☐ Contact Switchboard and ensure they are aware of the contact number for the Incident Command Centre
- ☐ Appoint the following positions, only if the regular assigned persons are not available:

Planning _____**Logistics** _____**Operations** _____**Recording Secretary** _____

- ☐ Receive status report/discuss initial action plan with required positions
- ☐ Notify Switchboard **(0)** that the Incident Command Centre has been established and provide the contact number
- ☐ Advise:
 - ☐ Emergency Department of the spill and possibility of casualties
 - ☐ Manager of Environmental Services/Delegate of the spill (via Switchboard)
 - ☐ Director of Plant Engineering & Maintenance/Delegate (via Switchboard)
 - ☐ Occupational Health, Safety & Wellness of the incident
 - ☐ Infection Control
 - ☐ Risk Management
- ☐ Conduct regular business cycles with members of the Incident Command Centre
- ☐ Prepare to provide a situational report to the CEO/Delegate
- ☐ Be prepared to transfer command to a higher authority (e.g., HAZMAT Team/Fire Department/CEO), or initiate unified command
- ☐ Notify Risk Management of the incident
 - ☐ If the incident is expected to cost more than \$5000 for clean-up and repair:
 - ☐ Ensure a SAFE Report is submitted online
 - ☐ Ensure required information for insurance purposes is gathered
- ☐ Keep the President & CEO/Delegate informed, as required
- ☐ Liaise with Director/Executive On-Call and assess the need to activate the Corporate Emergency Operations Center (EOC) and call back of Program Directors
- ☐ Notify Security Operations Centre to call Corporate EOC members (KGH Primary fan out contacts) if required, and have them report to the EOC at Watkins 2 Executive Committee room

- ☐ Authorize staff fan-out lists, as required, in consultation with Program Directors/Managers
- ☐ Ensure the EOC is appropriately informed of any identified risk issues
- ☐ Brief Program Directors on the status of the incident
- ☐ When the EOC is activated assume role of Emergency Management/Liaison Officer and delegate role of Incident Commander

Planning – Director of Plant Engineering & Maintenance \ Delegate

- ☐ Report to the Incident Command Centre (Dietary 1 Security Office)
- ☐ Oversee Maintenance response to the spill
- ☐ Initiate the recall of off-duty Maintenance staff, as required
- ☐ Ensure the continuation of Maintenance functions in the remainder of the facility
- ☐ Consider implications of the spill on the function of mechanical and plant engineering equipment
- ☐ Contact Strategy Management & Communications to provide information about the incident

Logistics Officer – Manager of Environmental Services \ Delegate

- ☐ Report to the Incident Command Centre after initial assessment of the spill
- ☐ Oversee the Environmental Services response to the spill
- ☐ Ensure an Environmental Services Assistants are responding to assist with containment and clean-up of the spill
- ☐ Ensure the continuation of Environmental Services functions in the remainder of the facility
- ☐ Contact contracted HAZMAT Team (**Waste Management Services 1 800-267-7874**) to be prepared to respond
- ☐ Oversee the Environmental Services response under direction of Infection Control and assist, as required
- ☐ Initiate the recall of off-duty Environmental Services staff, as required

Operations Officer – Representative of Protection Services

- ☐ Oversee the Security response under direction of the HAZMAT team and the Fire Department and assist, as required
- ☐ Ensure the hazardous spill kit has been sent to the incident site

Recording Secretary

- ☐ Document all action within the Incident Command Centre
- ☐ Prepare for the termination of the emergency and any debriefing requirements (i.e. paper, pens, location, etc.)

5.3. Upon Receiving the Code Brown (Major Biological Spill) Notification**Incident Commander – Director of Protection Services/Delegate**

- ☐ Establish the Incident Command Centre (Security office on Dietary 1)
- ☐ Contact Switchboard and ensure they are aware of the contact number for the Incident Command Centre
- ☐ Appoint the following positions, only if the regular assigned persons are not available:

Planning

Logistics

Operations

Recording Secretary

- ☐ **When dealing with large volumes of contaminated water, reference the Flood plan for additional actions and remediation procedures**
- ☐ Advise:
 - ☐ Emergency Department of the spill and possibility of casualties
 - ☐ Manager of Environmental Services/Delegate of the spill (via Switchboard)
 - ☐ Director of Plant Engineering & Maintenance/Delegate (via Switchboard)
 - ☐ Occupational Health, Safety & Wellness of the incident
 - ☐ Infection Control
 - ☐ Risk Management
- ☐ Liaise with Director/Executive On-Call and assess the need to activate the Corporate Emergency Operations Center (EOC) and call back of Program Directors
- ☐ Notify Security Operations Centre to call Corporate EOC members (KGH Primary fan out contacts) if required, and have them report to the EOC at Watkins 2 Executive Committee room
- ☐ Conduct regular business cycles with members of the Incident Command Centre
- ☐ Be prepared to transfer command to a higher authority (e.g., Infection Control/CEO), or initiate unified command
- ☐ Keep the President & CEO/Delegate informed, as required

Planning Officer – Director of Plant Engineering & Maintenance

- ☐ Oversee Maintenance response to the spill
- ☐ Initiate the recall of off-duty Maintenance staff, as required
- ☐ Ensure the continuation of Maintenance functions in the remainder of the facility

- ☐ Consider implications of the spill on the function of mechanical and plant engineering equipment
- ☐ Contact Strategy Management + Communications to provide information about the incident

Logistics Officer – Manager of Environmental Services

- ☐ Oversee the Environmental Services response to the spill
- ☐ Ensure an Environmental Services Assistants are responding to assist with containment and clean-up of the spill
- ☐ Ensure the continuation of Environmental Services functions in the remainder of the facility
- ☐ Contact contracted HAZMAT contractor (**Waste Management Services 1 800-267-7874**) to be prepared to respond
- ☐ Initiate the recall of off-duty Environmental Services staff, as required
- ☐ Ensure the hazardous spill kit has been sent to the incident site
- ☐ Oversee the Environmental Services response under direction of the Radiation Safety Officer or Nuclear Medicine Technologist and assist, as required

Operations Officer – Representative of Protection Services

- ☐ Oversee the Security response under direction of the Incident Command and Infection Control and assist, as required
- ☐ Ensure the hazardous spill kit has been sent to the incident site

Recording Secretary

- ☐ Document all action within the Incident Command Centre
- ☐ Prepare for the termination of the emergency and any debriefing requirements (i.e. paper, pens, location, etc.)

5.4. Upon Receiving the Code Brown (Major Radioactive Spill) Notification**Incident Commander – Director of Protection Services/Delegate**

- ☐ Establish the Incident Command Centre (Security office on Dietary 1)
- ☐ Contact Switchboard and ensure they are aware of the contact number for the Incident Command Centre
- ☐ Appoint the following positions, only if the regular assigned persons are not available:

Planning

Logistics

Operations

Recording Secretary _____

- ☐ Advise:
 - ☐ Emergency Department of the spill and possibility of casualties
 - ☐ Manager of Environmental Services/Delegate of the spill (via Switchboard)
 - ☐ Director of Plant Engineering & Maintenance/Delegate (via Switchboard)
 - ☐ Occupational Health, Safety & Wellness of the incident
 - ☐ Infection Control
 - ☐ Risk Management
- ☐ Advise Radiation Safety Officer/Nuclear Safety Technologist/Delegate of the incident, if not already aware
- ☐ Liaise with Director/Executive On-Call and assess the need to activate the Corporate Emergency Operations Center (EOC) and call back of Program Directors
- ☐ Notify Security Operations Centre to call Corporate EOC members (KGH Primary fan out contacts) if required, and have them report to the EOC at Watkins 2 Executive Committee room
- ☐ Conduct regular business cycles with members of the Incident Command Centre
- ☐ Advise the Emergency Department of the spill and possibility of casualties
- ☐ Be prepared to transfer command to a higher authority (e.g., Radiation Safety Officer/CEO), or initiate unified command
- ☐ Keep the President & CEO/Delegate informed, as required

Planning Office – Director of Plant Engineering & Maintenance

- ☐ Oversee Maintenance response to the spill
- ☐ Initiate the recall of off-duty Maintenance staff, as required
- ☐ Ensure the continuation of Maintenance functions in the remainder of the facility
- ☐ Consider implications of the spill on the function of mechanical and plant engineering equipment
- ☐ Contact Strategy Management & Communications to provide information about the incident

Logistics Officer – Manager of Environmental Services

- ☐ Oversee the Environmental Services response to the spill
- ☐ Ensure an Environmental Services Assistants are responding to assist with containment and clean-up of the spill
- ☐ Ensure the continuation of Environmental Services functions in the remainder of the facility

- ☐ Contact contracted HAZMAT contractor (**Waste Management Services 1 800-267-7874**) to be prepared to respond
- ☐ Initiate the recall of off-duty Environmental Services staff, as required

Operations Officer – Representative of Protection Services

- ☐ Oversee the Security response under direction of the Radiation Safety Officer or Nuclear Medicine Technologist and assist, as required
- ☐ Ensure the hazardous spill kit has been sent to the incident site

Recovery**5.5. Upon Notification That the Crisis Has Concluded****Incident Commander**

- ☐ Consult with all involved departments on the decision to call an all clear
- ☐ When decided, instruct Switchboard to announce “Code Brown All Clear”
- ☐ Arrange and prepare for a debriefing session
- ☐ Attend debriefing with Hospital Emergency Operations Centre, if activated
- ☐ Resume normal duties

Planning Officer

- ☐ Ensure equipment used has been returned and in proper storage
- ☐ Attend the Incident Command Centre debriefing session
- ☐ Contact Strategy Management + Communications
- ☐ Resume normal duties

Logistics Officer

- ☐ Ensure any required documentation is completed and delivered to Occupation Health & Safety
- ☐ Contact contracted HAZMAT contractor (**Waste Management Services 1 800-267-7874**)
- ☐ Attend the Incident Command Centre debriefing session
- ☐ Resume normal duties

Operations Officer

- ☐ Attend the Incident Command Centre debriefing session
- ☐ Resume normal duties

Recording Secretary

- ☐ Document recovery actions within the Incident Command Centre

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6.0 Response & Recovery – Affected Area Manager/Delegate⁵

Response

6.1. Upon Notification of a Minor Spill

- ☐ Provide direction as required with clean-up of the spill in accordance with the substance's material safety data sheet (if applicable)
- ☐ Ensure necessary documentation is completed and submitted to the appropriate Government agencies, as required

6.2. Upon Receiving the Code Brown (Chemical Spill) Notification

- ☐ Report to and assume command of the area until arrival of Security / HAZMAT Team / Fire Department
- ☐ Refer to All Staff Response: 2.1. Upon Occurrence or Discovery of a Chemical Spill

6.3. Upon Receiving the Code Brown (Biological Spill) Notification

- ☐ **When dealing with large volumes of contaminated water, reference the Flood plan for additional actions and remediation procedures**
- ☐ Report to the area and assume command of the area until arrival of Infection Control
- ☐ Refer to All Staff Response: 2.2. Upon Occurrence or Discovery of a Biological Spill

6.4. Upon Receiving the Code Brown (Radioactive Spill) Notification

- ☐ Report to the area and assume command of the area until arrival of Radiation Safety Officer or Nuclear Medicine Technologist
- ☐ Refer to All Staff Response: 2.3. Upon Occurrence or Discovery of a Radioactive Spill

Recovery

6.5. Upon Notification That the Crisis Has Concluded

- ☐ Conduct a debriefing session with involved staff
- ☐ Ensure any required documentation is completed and delivered to Occupational Health. Safety & Wellness
- ☐ Resume normal duties

⁵ Delegate refers to the next level of appointed authority. In this case, the Administrative Coordinator.

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7.0 Response & Recovery – President & CEO/Delegate⁶

Response

7.6. Upon Receiving the Code Brown Notification

- ☐ Prepare to receive situational report / briefing from the Incident Commander
- ☐ If recommendation is to commence further evacuation consider the following:
 - ☐ Implementation of Hospital Emergency Operations Centre (See EOC Implementation Plan)
 - ☐ Implementation of Code Green (Evacuation)
 - ☐ Implementation of Crisis Communication Plan

Recovery

7.7. All Clear – Declaring Return to Normal Operations

- ☐ Implement a course of action to manage a major disruption of Hospital routine, if necessary
- ☐ Arrange for a debrief session between the Incident Command Centre and the Emergency Operations Centre, if established
- ☐ Arrange for a debrief session with involved staff

⁶ Delegate refers to the next level of appointed authority. In this case, the Director/Executive On-Call
Response & Recovery – President & CEO/Delegate

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8.0 Response & Recovery – Emergency Department

Response

8.1. Upon Hearing Code Brown Announced Overhead

- ☐ Prepare for the influx of patients
- ☐ Prepare for the need to set up decontamination process

8.2. Activating Code Orange Decontamination Process

- ☐ The Emergency Department will be notified to activate the decontamination process either by an internal source (Infection Control, Security); or an external source, Emergency Services (Police, Fire, EMS) or KFL&A Public Health.
- ☐ Upon notification for the need of the decontamination process, activate the appropriate Code Orange Stage (Stage 2 or Stage 3)

Recovery

8.3. Upon Notification that the Crisis Has Concluded

- ☐ Ensure affected staff participate in a debriefing session
- ☐ Return to normal operations

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9.0 Response & Recovery – Occupational Health, Safety & Wellness

Response

9.1. Upon Receiving the Code Brown Notification

- ☐ If requested, provide access to the MSDS/SDS master list
- ☐ Prepare to respond to the Code Brown site to assist in treatment of any affected staff
- ☐ Once on site assume command of any staff persons requiring medical treatment and suggest course of action required
- ☐ **When dealing with large volumes of contaminated water, reference the Flood plan for additional actions and remediation procedures**

Recovery

9.2. Upon Notification That the Crisis Has Concluded

- ☐ Resume normal duties
- ☐ Prepare to receive required documentation

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10.0 Response & Recovery – Infection Control

Response

10.1. Upon Receiving the Code Brown (Biological Spill) Notification

- ☐ When dealing with large volumes of contaminated water, reference the Flood plan for additional actions and remediation procedures
- ☐ Report to the area of the spill to ensure proper infection control procedures are in effect
- ☐ Determine if the decontamination process needs to be activated

No:

- ☐ Continue to monitor the area until cleaned

Yes:

- ☐ Notify the emergency department to activate the decontamination process

10.2. Activating the Code Brown Decontamination Process

- ☐ Notify KFL&A Public Health and Infectious Diseases of activation of the decontamination process
- ☐ Report to the emergency department and put on protective clothing
- ☐ Following decontamination, Infection Control will follow-up with **stable** patients being held in the isolation area waiting room
- ☐ In consultation with KFL&A Public Health and/or Infectious Diseases, determine whether patients are potentially infectious or incubating a serious disease where person-to-person transmission is a concern

If they are not:

- ☐ Patient will be discharged (possibly under home quarantine) with follow-up by KFL&A Public Health

If they are:

- ☐ Patients who do not require admission for medical reasons but who require strict quarantine (determined by KFL&A Public Health) will need to be transported to quarantine facilities
- ☐ A line listing of all patients, including their home address and phone number for the ensuing 3 weeks, will be completed for each patient by an Infection Control Practitioner prior to their discharge and the list will be given to KFL&A Public Health

Following decontamination, Infection Control will follow-up with **unstable** patients being treated in the isolation area treatment area

- ☐ In consultation with KFL&A Public Health and/or Infectious Diseases, determine whether patients are potentially infectious or incubating a serious disease where person-to-person transmission is a concern

- ☐ Assess patients, who require admission for medical reasons, as to isolation requirements
- ☐ Notify the Incident Command Centre of any special room requirements

Recovery

10.3. Upon Notification That the Crisis Has Concluded

Decontamination process not activated:

- ☐ Ensure spill area conforms to infection control policy
- ☐ Resume normal duties

Decontamination process activated:

- ☐ Nondisposable items will be gathered, placed in plastic containers, sealed and placed in biohazard bags. Arrange for cleaning and sterilization of these items after consultation with the Manager of Central Processing.
- ☐ The disinfectant to be used for decontamination of a biological spill is: PerCept (0.5% hydrogen peroxide) 1:16 dilution for 5 minutes
- ☐ Inspect the isolation room and equipment and authorize the staff in the area to resume normal duties
- ☐ Report to the Incident Command Centre for debriefing

11.0 Response & Recovery – Environmental Services

Response

11.1. Upon Notification of a Minor Chemical or Biological Spill

Manager Environmental Services/Delegate⁷

- ☐ Send an Environmental Services Assistant to the area to arrange in cleaning the area after the spill has been initially cleaned

Environmental Services Assistants

- ☐ Obtain spill kit and bring to Code Brown location
- ☐ Don appropriate personal protective equipment
- ☐ Assist, as required, with the cleaning of the area after the spill has been initially cleaned

11.2. Upon Hearing Code Brown Announced Overhead

Manager Environmental Services/Delegate

- ☐ **When dealing with large volumes of contaminated water, reference the Flood plan for additional actions and remediation procedures**
- ☐ Report to the area of the spill for initial assessment
- ☐ Ensure Environmental Services staff are assigned to the incident site
- ☐ Report to the Incident Command Centre

Environmental Services Assistants

- ☐ Obtain spill kit and bring to Code Brown location
- ☐ Don appropriate personal protective equipment
- ☐ Assist, as required, with the containment of the spill
- ☐ Assist, as required, with the cleaning of the area after the spill has been initially cleaned

Recovery

11.3. Upon Notification That the Crisis Has Concluded

Manager Environmental Services/Delegate

- ☐ Conduct a debriefing with involved staff
- ☐ Ensure any required documentation is completed and delivered to Occupational Health, Safety & Wellness

⁷ Delegate refers to the next level of appointed authority. In this case, the Environmental Services Supervisor.

Environmental Services Assistants

- ☐ Participate in a debriefing
- ☐ Resume normal duties

12.0 Response & Recovery – Radiation Safety Officer / Nuclear Medicine Technologist

Response

If not completed already ensure section “2.3 Upon Occurrence or Discovery of a Radiological Spill” is referenced for staff actions

12.1. Upon Notification of a Minor Radiological Spill

- ☐ Oversee the clean-up of the radioactive spill
- ☐ Ensure the safe disposal of materials used to clean up the spill
- ☐ Ensure the monitoring and assessment of all personnel in the area as to the degree of exposure, and the initiation of necessary medical treatment
- ☐ Ensure that decontamination procedures are followed (**Appendix A – Radioactive Decontamination of Personnel**)

12.2. Upon Receiving the Code Brown (Radioactive Spill) Notification

- ☐ Assume command of the area in cooperation with Incident Commander
- ☐ Oversee the clean-up of the radioactive spill
- ☐ Ensure the safe disposal of materials used to clean up the spill
- ☐ Ensure the monitoring and assessment of all personnel in the area as to the degree of exposure, and the initiation of necessary medical treatment
- ☐ Ensure that decontamination procedures are followed (**Appendix A – Radioactive Decontamination of Personnel**)

12.3. Upon Notification of an Unknown Radioactive Spill

- ☐ Report immediately to the spill site

Treat the spill as major until proven otherwise, (Reference 12.2 Upon Receiving the Code Brown (Radioactive Spill) Notification)

Recovery

12.4. Upon Notification That the Crisis Has Concluded

For **minor** radioactive spills only it will be the responsibility of the Radiation Safety Officer or Nuclear Medicine Technologist to determine that it is safe to resume normal duties in an area where the radioactive spill occurred.

- ☐ Take necessary precautions to ensure that it safe to resume normal duties
- ☐ Document occurrence on **Appendix B – Radioactive Incident Report**
- ☐ Forward documentation to the appropriate authorities
- ☐ Advise staff in the area that it is safe to resume normal duties

For **major** radioactive spills the Radiation Safety Officer or Nuclear Medicine Technologist will consult with the Hospital's EOC to determine that it is safe to resume normal duties in an area where the radioactive spill occurred.

13.0 Appendix A – Radioactive Decontamination

1. Contaminated Wounds:

- 1.1. Decontamination of wounds takes priority over other contaminated areas.
- 1.2. Irrigate with copious amounts of normal saline, using bulb syringe for 3 minutes.
Repeat irrigation if a radiation survey shows that contamination remains.
- 1.3. Surgical debridement may be necessary.
- 1.4. Save all tissue removed for analysis.
- 1.5. Suturing may then be carried out in the usual manner. There is no reason to leave the wound open unless closure has been so long delayed that infection is likely.
- 1.6. Cover decontaminated wound with dressing prior to washing other areas.

2. Contaminated Skin (intact):

- 2.1. Wash with soap and tepid water, and, if still contaminated, repeat washing.
- 2.2. If still contaminated, scrub gently with E-Z scrub brush. A mixture of 50% laundry detergent and 50% cornmeal or 3% solution of bleach may be used. If bleach is used, rinse immediately with water to prevent irritating the skin.
- 2.3. Discontinue washing if skin becomes irritated.

3. Contaminated Eyes:

- 3.1. Irrigate with eye stream in the direction of nose to temple.
- 3.2. Survey and repeat irrigation if necessary.

4. Contaminated Ear Canals:

- 4.1. Irrigate gently with a small amount of water.
- 4.2. Suction excess water to prevent pressure build up.
- 4.3. Survey and repeat irrigation if necessary.

5. Contaminated Nose or Mouth:

- 5.1. Turn head to side if possible
- 5.2. Rinse with small amounts of water suctioning frequently.
- 5.3. Avoid water getting into stomach.
- 5.4. Perform gastric lavage if necessary, monitoring and sampling contents.

6. Contaminated Hair:

- 6.1. Shampoo for 2-3 minutes and rinse thoroughly. Ensure conditioner is not applied.
- 6.2. Survey and repeat washing if necessary.
- 6.3. If necessary hair may be cut off, shaving must be avoided.

7. Burns

- 7.1. Gently wash burn area with lukewarm, sterile water and cover with a dressing.
- 7.2. The body will get rid of any remaining contamination on its own.
- 7.3. Large burned areas should not be washed because of the danger of hypothermia.
- 7.4. Skin regenerates every 14 days.

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