NORTHWEST TERRITORIES
Health and Social Services Authority

CODE PROCEDURE

CATEGORY:	Code Brown	**PAGE NUMBER:**	1 of 26
SUBJECT:	In-facility Hazardous Spill	**DISTRIBUTION:**	Hospital Wide Manuals
CURRENT EFFECTIVE DATE:	October 2017	**NEXT REVIEW DATE:**	October 2020

A Code Brown (In-facility Hazardous Spill) alerts staff to an accidental release of hazardous or potentially hazardous material. Hazardous spills include the discovery of spills, contamination, leak and/or suspicious/unusual smell of an unknown substance, liquid, powder, gas or vapour.

A hazardous material is a chemical or biological (including blood and body fluid) material which, because of quantity, concentration, or characteristic (physical/chemical/infectious) may pose a threat to human health or the environment when improperly treated, handled, stored, transported or disposed of.

There are three possible responses to an In-facility Hazardous Spill:

1. **Manageable Spill – Departmental Response**
   Originating department can conduct a response to materials that pose minimal or no risk to personnel provided the performance of cleanup and disposal procedures are within the scope of staff knowledge and capability.
2. **Unmanageable Spill – Internal Response**
   Code Brown response team can conduct a response to materials that the originating department lacks the knowledge and capability to perform, or that requires personal protective equipment not available in the originating department.
3. **Unmanageable Spill – External Response**
   External emergency response personnel (Fire Department/Hazardous Material Unit) neutralize materials to make the area safe for in-facility personnel to complete response activities.

Northwest Territories Health and Social Services Authority

Stanton Territorial Hospital
PO Box 10, 550 Byrne Rd
Yellowknife, NT X1A 2N1

SPECIAL POINTS

This document addresses the general procedures to be followed for a spill involving a hazardous material.

Supervisors of departments handling hazardous materials (such as cytotoxic drugs) that are not covered in this document are responsible for ensuring that the appropriate spill cleanup procedures, equipment and supplies are available in their area and that their staff are appropriately trained in their use.

In the event of a Code Brown at one of the off-site departments, contact the Patient Care Coordinator at (867) 445-8770 to initiate a response. The building owner shall also be notified of the hazardous spill.

Code Brown Response Team:

The Code Brown Response Team consists of the following personnel:

- Manager of affected area (or designate);
- Occupational Health and Safety Coordinator;
- Biological Safety Officer;
- Manager of Facility Services (or designate);
- Manager of Housekeeping (or designate)
- Patient Care Coordinator

After Hours Response Team:

The Patient Care Coordinator will contact the Facility Services on-call staff and the Manager on-call. Based on the situation, this team will determine which additional staff members need to be called in.

To Call a Code Brown

- Proceed to the nearest telephone.
- Dial "80".
- Announce "Code Brown _____(location)" three times.

CODE BROWN: IN-FACILITY HAZARDOUS SPILL

The following mnemonic can be used to remember the steps used for a successful spill response:

S — Safely evacuate everyone from the immediate area and secure the area.

P — Prevent the spread of fumes by closing doors.

I — Initiate the appropriate spill response.

L — Leave all electrical equipment alone. Do not turn on or off unless directed to.

L — Locate any information regarding the chemical, if possible, and act accordingly.

PROCEDURE:

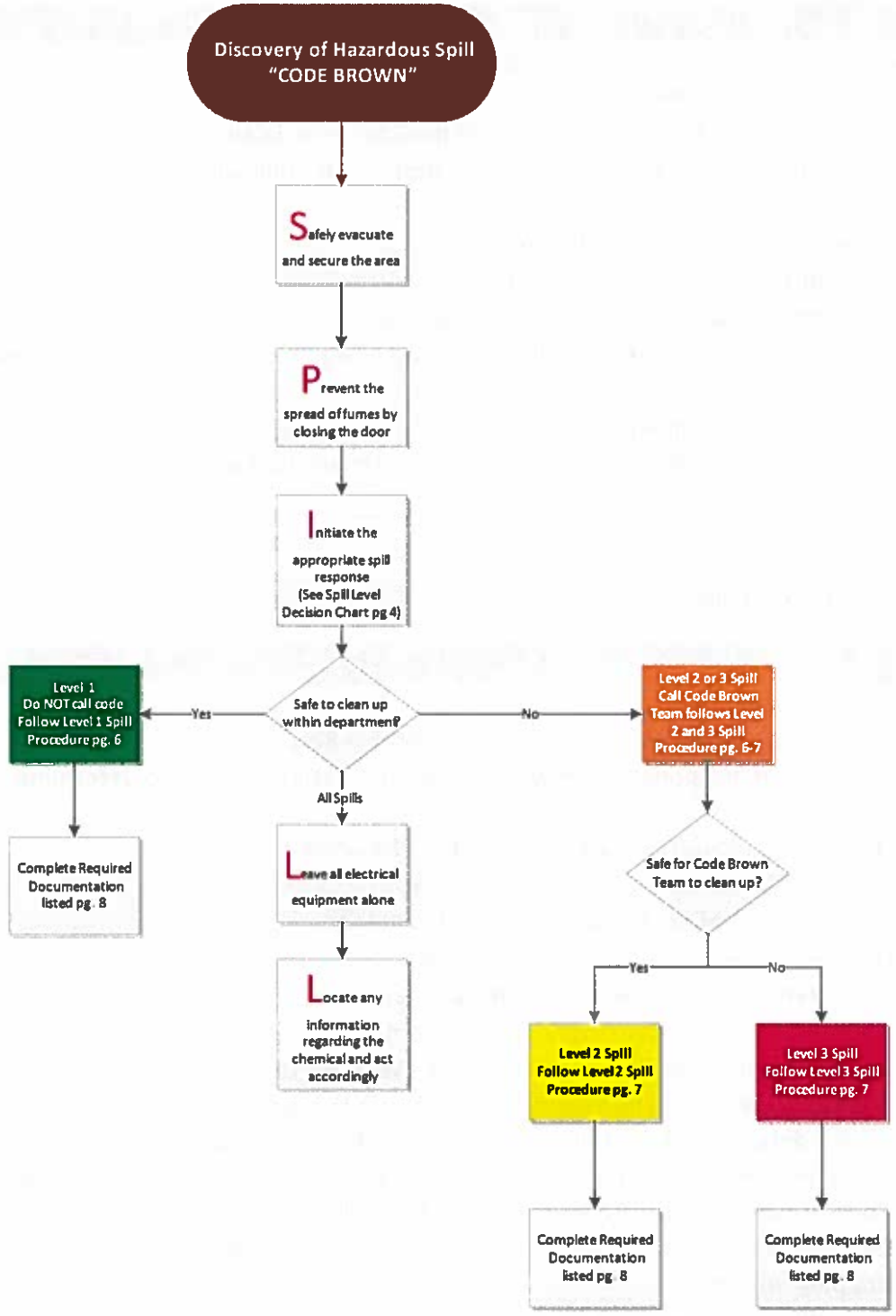
1. Safely evacuate the area by instructing all visitors, patients/residents and others to leave the area immediately (See Code Green). Ensure all parties requiring medical attention (eye wash station, safety shower, emergency department) as a result of the spill receive treatment.
2. Secure the area and prevent re-entry when hazardous material is likely to endanger the occupant.
3. Prevent the spread of fumes by closing all doors if possible.
4. Immediately notify the area Supervisor/Manager/Designate or the Patient Care Coordinator (after hours) of the incident. Once notified, this person becomes the Site Team Lead.
5. Collaborate with the Site Team Lead to determine the Level of Spill.
   See Spill Level Decision Chart.
6. Based on the level of the spill proceed as follows:
   a. If it is a **Level 1** Spill – Do NOT call a Code Brown. Proceed to Level 1 Spill Procedure.
   b. If it is a **Level 2** or **Level 3** Spill – Call a Code Brown. Proceed to Level 2 and 3 Spill Procedure.

Spill Level Decision Chart:

Level 1 Spill	**Manageable Spill – Departmental Response** • Readily handled by the user/generator • Within the scope of knowledge and training of staff and can be safely managed through existing procedures and departmental spill kits • Material is immediately identified • Little or no risk to staff, patients, visitors, or property • Does not require evacuation of the area • Volume less than 1 litre • Does not require respiratory protection beyond an N95 mask • **ALL OF THE ABOVE CRITERIA MUST BE MET**
Level 2 Spill	**Unmanageable Spill – Internal Response** • Cannot be immediately contained using spill kits in the area • Material not immediately identifiable to the discovering worker(s) • Possible/probable hazard to staff, patients and visitors • Requires evacuation of the immediate area • Volume greater than 1 litre • Occurred outside the usual work area (public area) • Requires respiratory protection beyond an N95 mask • Results in property damage, health effects or injuries to staff, patients or visitors • Results in release to the environment (down a drain, etc.) • **ONLY ONE OF THE ABOVE MUST BE MET**
Level 3 Spill	**Unmanageable Spill – External Response** • Site Team is unable to identify the hazardous substance • Clear and immediate hazard to staff, patients, visitors or property • Extremely hazardous material that for reasons of its volume, toxicity, pathogenicity, reactivity or any combination of these criteria is beyond the Code Brown Response Team's ability to control and requires external assistance • Requires the use of a self-contained breathing apparatus • Declaration of the spill as **VERY HAZARDOUS** will be decided by the Chief Operating Officer or Designate (Manager On Call) • **ONLY ONE OF THE ABOVE MUST BE MET**

CODE BROWN: IN-FACILITY HAZARDOUS SPILL

FLOW CHART:



Level 1 Spill Procedure:

Level 1 Spill

• Review the SDS sheet for the material (if applicable)
• Don the appropriate PPE
• Initiate clean up under the supervision of the Site Team Lead
• Follow the instructions provided in one or more of the following:
  • SDS sheet
  • Appendix A – Chemical Spill Control
  • Appendix B – Biological Spill Control
  • Department Specific Spill Control Procedures
• Site Team Lead will determine if Housekeeping is required to perform a final clean of the area
• Complete required documentation
• Ensure that the spill kit is replenished of the materials used and returned to its location

Level 2 and 3 Spill Procedure:

Level 2 and 3 Spill

• Select a Site Team Leader
• Provide a copy of the SDS sheet to the Code Brown Response Team (if applicable)
• The Code Brown Response Team will evaluate the hazard and risk to determine the following:
  • The name and approximate volume of the hazardous material
  • The hazards of the material (consult the SDS or CANUTEC 1-888-226-8832)
  • The need to confine the spilled product/material
  • The need to shut down mechanical or air handling systems
  • The potential for environmental contamination
  • The need for protective clothing/equipment
• Call the Chief Operating Officer or Designate (Manager on Call – (867) 445-8702)
• In consultation with the Chief Operating Officer or Designate (Manager on Call - (867) 445-8702), determine if the spill will require an internal (See Level 2 Spill Procedure) or external (See Level 3 Spill Procedure) response and which measures need to be taken.
• The Code Brown Response Team may enact the following measures to ensure the incident is appropriately contained, responded to and cleaned up:
  • Stopping operations
  • Evacuating work areas (See Code Green)

- Shutting down air handling systems
- Protecting nearby storm sewers
- Collecting and/or containing released wastes and removing containers.

Level 2 Spill Procedure:

Level 2 Spill

• Members of the Code Brown Response Team will don the appropriate PPE.
• Clean up will be initiated following the instructions provided in one or more of the following:
  • SDS sheet
  • Appendix A – Chemical Spill Control
  • Appendix B – Biological Spill Control
• If required, Housekeeping will perform a final clean of the area
• Once the incident is over, a "Code Brown, All Clear" will be overhead paged three times
• Complete required documentation
• Ensure that the spill kit is replenished of the materials used and returned to its location

Level 3 Spill Procedure:

Level 3 Spill
• Team will notify switchboard to call the Fire Department Hazardous Materials Team (867) 873-2222 • Team will call the NWT Spill Line (if required) (867) 920-8130 • Team will call security (867) 446-6121 to assist with securing the area and escorting the Fire Department Hazardous Materials Team to the location • Assistance will be provided to the Fire Department as required • Code Brown Response Team stays in contact with Chief Operating Officer or Designate (Manager on Call - (867) 445-8702) and keeps them informed as the cleanup progresses • Once the site is safe for entry, Team will coordinate remaining cleanup • Supplies (or disposal) may need to be coordinated through KBL (867) 873-5263 • If required, Housekeeping will perform a final clean of the area • Once the incident is over, a "Code Brown, All Clear" will be overhead paged three times • Complete required documentation

Required Documentation:

All levels of spill require the following:

- Risk Pro Incident Report
- Code Brown Evaluation Form – Appendix C

In addition, the following documentation/notification(s) may be required:

- WSCC Employer's and Worker's Injury Report Form (if staff are injured or exposed to hazardous material)
- NT-NU Spill Report Form (if spill is released to the environment)
  - http://www.enr.gov.nt.ca/sites/enr/files/128-spill_report_form_e_fillable_1.pdf
- Notification of Infection/Exposure to Biological Safety Officer (incidents involving biohazardous material which could result in infection/disease)

Staff Responsibilities:

It is the responsibility of all staff to:

- Complete training and be familiar with the Workplace Hazardous Materials Information System (WHMIS);
- Be familiar with the Safety Data Sheets (SDS) for each hazardous material handled in the workplace;
- Practice safe storage and handling of all hazardous materials;
- Report any potential hazard to your Supervisor/Manager/Designate;
- Upon hearing Code Brown announcement, continue with regular duties and await further instructions;
- Participate in activities as directed by the Response Team;
- Participate in the debriefing session if required.

Duties for Chief Operating Officer or Designate (Manager on Call)

- Determine the appropriate level of response based on the Code Brown Response Team recommendation.
- Approve additional resources to facilitate appropriate and timely spill response

- Review the Code Green procedure and prepare for the possible implementation of a Code Green response
- Using the Emergency Fan Out List, notify appropriate personnel of possible or actual impacts to operations and contingency plans
- Prepare Briefing Note or Media Release as required to keep stakeholders informed of the impact to patient care, safety and facility operations

Appendices:

- Appendix A – Chemical Spill Control
- Appendix B – Biological Spill Control
- Appendix C – Code Brown Evaluation Form
- Appendix D – Location of Spill Kits

References:

Covenant Health Emergency/Disaster Management. (2017, January). *Code Brown Chemical Spill/Hazardous Material.* Retrieved September 12, 2017, from http://extcontent.covenanthealth.ca/Policy/Code%20Brown%20GNH%20January%202017.pdf

GNWT Environment and Natural Resources. (n.d.). *Spills.* Retrieved September 12, 2017, from GNWT Environment and Natural Resources: http://www.enr.gov.nt.ca/sites/enr/files/128-spill_report_form_e_fillable_1.pdf

Headwaters Health Care Centre Emergency Preparedness Committee. (2016, May). *Code Brown Policy and Procedure.* Retrieved September 6, 2017, from hhcclms.medworxx.com/.../Code%20Brown%20Medworxx%20May%202016.pdf

North York General Centre for Education. (n.d.). *Emergency Codes - North York General Hospital.* Retrieved September 6, 2017, from http://www.nygh.on.ca/data/2/rec_docs/1760_Emergency_Preparedness.pdf

North York General Hospital Emergency Preparedness Committee. (2012, June 27). *XIII-20 Code Brown.* Retrieved September 6, 2017, from http://nygh.on.ca/data/2/rec_docs/1001_code-brown.pdf

Ontario Hospital Association. (n.d.). *OHA Emergency Management Toolkit - Ontario Hospital Association*. Retrieved September 6, 2017, from https://www.oha.com/Documents/Emergency%20Management%20Toolkit.pdf

Sunnybrook Health Sciences Centre. (n.d.). *Code Brown - Emergency Preparedness - Sunnybrook Hospital*. Retrieved September 6, 2017, from Sunnybrook Health Sciences Centre: http://sunnybrook.ca/content/?page=patient-emergprep-code-brown

Reviewed and Approved by:

Oct 24, 2017

Signature and Date

Appendix A: Chemical Spill Control

PURPOSE:

Chemical spills present a variety of hazards in the workplace. For example, corrosives such as acids and caustics can cause severe burns on contact to skin and eyes, and the presence of fumes can be damaging to the respiratory system. Also, many organic solvents are flammable and release vapors which are irritating to the eyes and respiratory system.

POLICY:

Please refer to Code Brown: In-Facility Hazardous Spill.

REAGENTS and/or SUPPLIES:

- Spill-X-A Agent
- Spill-X-C Agent
- Spill-X-S Agent
- Safety Gloves
- Safety Goggles
- Clean-up Pans
- Mixer/Scraper
- Chemical Spill Waste Bags
- 150 mL beaker
- Distilled Water
- pH Paper

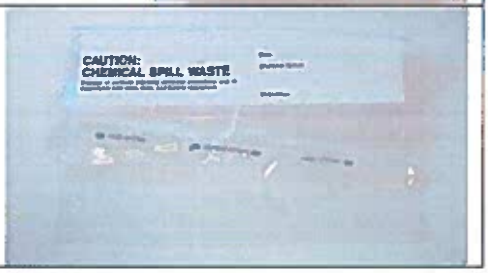
SPECIAL SAFETY PRECAUTIONS:

Familiarize yourself with the contents and applications of the Chemical Spill Treatment Kit prior to use. This will help ensure safer, more effective response in the event of a chemical spill.

PROCEDURE INSTRUCTIONS:

Step	Action
Responding to Chemical Spills	
1	Taking personal protective measures is always the first step in responding to chemical spills. Isolate the spill area by clearing it of all non-essential staff and patients and close all doors. Remove all contaminated clothing immediately. If required, use the Safety Shower or Eye Wash Station. 
2	Small spills can be managed by department personnel using the following procedure and the Chemical Spill Treatment Kit or Formaldehyde/Solvent Spill Treatment Kit. For spills requiring the Code Brown Response Team, call a "Code Brown". Dial "80" and state "Code Brown – _____ (location)" and repeat 3 times. 
3	Personal protective clothing suitable for the hazard should be worn to prevent direct contact with the spilled substance and its vapors. The eye and hand protection in the Chemical Spill Treatment kit along with a liquid impermeable gown offers minimum protection needed for spill clean-up. 
4	Identify the chemical spilled. Is the chemical an acid, caustic, a solvent, formaldehyde or other? Knowledge of a particular chemical's hazardous characteristics can be obtained from its labeling, the Material Safety Data Sheet, the manufacturer, and supervisory personnel. Review the substance's MSDS to see if additional bodily or

<table>
<tr><td></td><td>respiratory protective measures may be required and what first aid steps should be taken in case of spill contact.</td></tr>
<tr><td>5</td><td>The Chemical Spill Treatment Kit contains spill control agents specially formulated to treat particular classes and sizes of chemical spills. Do not use any agent on substances other than those listed for that agent in the Chemical Spill Treatment Ratio Table. If you have a chemical which does not appear on the list, call Ansul at 1-800-346-3626 to see if testing has been performed.
<table>
<tr>
<td>For acid spills...</td><td>  </td>
<td>For caustic spills...</td><td>  </td>
<td>For solvent spills...</td><td>  </td>
<td>For formaldehyde spills...</td><td>  </td>
</tr>
</table>
</td></tr>
<tr><td>6</td><td>Once the correct spill control agent has been selected, discard the safety seal from inside the agent bottle cap.</td></tr>
<tr><td>7</td><td>Begin spill treatment by pouring the agent around the spill to encircle and dike its perimeter.</td></tr>
<tr><td>8</td><td>Taking care to avoid splashing, continue to apply agent evenly onto spill.</td></tr>
<tr><td>9</td><td>Using the scraper provided, carefully mix agent into the spill for the most complete reaction.
<table>
<tr><th>If:</th><th>Then:</th></tr>
<tr><td>The spill was a corrosive (acid or base)</td><td>Any neutralization reaction will subside after a few minutes leaving a paste-like residue. Samples of the spill residue must be tested for final pH. Continue with Step 10.</td></tr>
<tr><td>The spill was a formaldehyde solution</td><td>Complete solidification may not occur. For dilute solutions, see the</td></tr>
</table>
</td></tr>
</table>

		Formaldehyde Treatment Ratio Table for solidification information. Spill-X-S may be required to solidify any remaining liquid. Continue with Step 13.
	The spill was a solvent	Agent adsorption is indicated by the disappearance of free liquid. Continue with Step 13.
10	Place about 10 mL (2 teaspoons) of a representative sample of spill residue in a 150 mL beaker.	
11	Slowly add distilled water until the mixture volume reaches 100 mL. Stir contents for about 3 minutes. NOTE: Severe foaming and high heat generation is a sign of incomplete spill neutralization.	
12	Using the pH test strips provided in the Chemical Spill Treatment Kit, test the solution pH. The pH must fall between 2.0 and 12.5 in order to be safe for disposal. If the pH is unacceptable, mix more of the appropriate agent into the spill and retest for pH. Repeat this step as necessary until spill residue pH is acceptable.	
13	Record the spill type, treatment (e.g., neutralized acid/base. pH=___) and disposition (indicate disposal method) onto the label of the bags provided.	

14	After the treatment reaction cools, use the scraper and pan to pick up the residue and place in the labeled bag. 
15	Rinse and decontaminate both the utensils and the spill area.
16	Residue disposal must occur as indicated in the appropriate MSDS.
17	Report the incident to the area Supervisor and enter it into RiskPro. Provide a list of supplies that need to be replaced from the Chemical Spill Treatment Kit to the area Supervisor so they can be replaced.
18	Complete the Code Brown Evaluation Form and submit it to the area Supervisor.

FORMALDEHYDE TREATMENT RATIO TABLE:

One 0.84 kg Spill-X-FP agent container will treat the following amount of spilled formaldehyde.

Concentration (WT%)	Amount Polymerized (L)	
37	0.73	Actual amount polymerized and solidified may vary according to application. For solution strengths less than 15, it may be necessary to solidify any remaining liquid with Spill-X-S agent.
30	0.91	
20	1.40	
15	1.89	
10	2.89	
4	7.33	

CHEMICAL SPILL TREATMENT RATIO TABLE:

Acid Spills		Caustic Spills	
Acid	**Amount Neutralized**	**Caustic**	**Amount Neutralized**
Acetic – 99%	1.14L	Ammonium Hydroxide – 29%	1.32L
Adipic – 10%	0.93L	Aniline	0.29L
Acrylic – 99%	0.93L	Diethanolamine	0.34L
Butyric – 99%	0.93L	Diethylamine	0.35L
Chlorosulfonic – 99%	0.74L	Diethylenetriamine	0.35L
Cyanoacetic – 50%	0.93L	Dimethylformamide	0.25L
Formic – 90%	0.93L	Ethylenediamine	0.33L
Hydriodic – 50%	0.93L	Hydrazine – 64%	0.54L
Hydrochloric – 37%	1.0L	Morpholine	0.35L
Hydrofluoric – 49%	0.93L	Potassium Hydroxide – 45%	0.87L
Methacrylic – 98%	0.93L	Pyridine	0.34L
Nitric – 70%	2.08L	Sodium Hydroxide – 50%	0.54L
Proprionic – 99%	0.93L		
Perchloric – 70%	1.11L		
Phosphoric – 85%	1.14L		
Sulfuric – 93%	1.08L		

Solvent Spills			
Non-Flammable	**Amount Adsorbed**	**Non-Flammable**	**Amount Adsorbed**
1-Amino-2-Propanol	0.45L	Dimethylether	0.42L
Aniline	0.42L	Diethylene Triamine	0.57L

2-Butoxyethanol	0.39L	Ethanolamine	0.42L
Carbon Tetrachloride	0.42L	5-Ethyl-2Methylpyridine	0.42L
Chloroform	0.49L	Toluene Diisocyanate	0.42L
Diethanolamine	0.57L	1,1,1-Trichloroethane	0.30L
Solvent Spills (Continued)			
Non-Flammable	**Amount Adsorbed**	**Non-Flammable**	**Amount Adsorbed**
1,1,2-Trichloroethane	0.91L	Triethylene Tetramine	0.57L
Flammable	**Amount Adsorbed**	**Flammable**	**Amount Adsorbed**
Acetone	0.76L	Gasoline, Unleaded	0.64L
Acrylonitrile	0.57L	Heptane	0.61L
Avgas 100	0.57L	Hexane	0.45L
Benzene	0.50L	Isopropylalcohol	0.68L
Butylacetate	0.49L	Isopropylamine	0.57L
Butylether	0.45L	Jet A-1 Avtur	0.42L
Butyraldehyde	0.49L	Methanol	0.45L
Carbon Disulfide	0.42L	Methyl Ethyl Ketone	0.76L
Cumene	0.49L	Methylisobutylketone	0.72L
Cyclohexane	0.45L	Morpholine	0.45L
Decane	0.49L	Nonane	0.49L
1,2-Dichloroethane	0.34L	Octane	0.39L
Diethylamine	0.57L	Pentane	0.42L
1-Diethylamino-2-Propanol	0.57L	Petroleum Ether	0.76L
N,N-Diethyethanolamine	0.39L	Pyridine	0.76L
Dimethylformamide	0.30L	Styrene	0.49L

Ethanol	0.45L	Toluene	0.45L
Ethylenediamine	0.45L	Triethylamine	0.45L
Ethylene-Glycoldimethylether	0.49L	Vinyl Acetate	0.68L
Fuel Oil #2	0.45L	Xylene, O-	0.57L
Gasoline (50-100 Octane)	0.45L	Xylene, P-	0.45L
Gasoline (100-130 Octane)	0.64L		

REFERENCES:

- Ansul Incorporated. (2006). *Spill-X Spill Treatment Guide.* Marinette, WI: Ansul Incorporated.
- Northwest Territories Health and Social Services Authority. (2017). Code Brown – In-Facility Hazardous Spill. In *Code Binder.* Yellowknife, NT: Stanton Territorial Hospital.
- Biosafety Advisory Committee. (2016). *STHA Biosafety Program Manual.* Yellowknife, NT: Stanton Territorial Hospital.

Appendix B – Biological Spill Control

PURPOSE:

This procedure has been developed to ensure the safety of all those who could potentially become exposed to a spill of blood and/or bodily fluids. These types of spills are to be cleaned up immediately using routine precautions and reported in RiskPro.

POLICY:

All individuals are to consider this type of spill infectious, and respond in appropriate fashion. Since the greatest risk of exposure to the individual is by direct contact with the material, personal protective equipment must be worn.

Decontamination of personnel or patients following exposure takes priority over cleanup.

If you are exposed, immediately remove contaminated clothing and other protective equipment and wash affected areas with soap and water. If medical follow up is warranted it should be sought immediately.

SUPPLIES (available in the Biological Spill Kit):

- Disinfectant solution (dilute bleach – 1 part bleach to 5 parts tap water)
- Forceps, tongs, broom, dustpan
- Personal Protective Equipment: safety glasses, gloves, lab coat, and shoe covers (optional)
- 2 yellow biohazard bags, sharps container
- Paper towels or other absorbent material

PROCEDURE INSTRUCTIONS:

Follow the steps in the table below to control a biological spill.

Step	Action
Spills within a Biological Safety Cabinet	
1	Leave the ventilation on.
2	Notify others in the department not to use the Biological Safety Cabinet (include signage) and inform the area Supervisor.
3	Cover the spill area with paper towels or absorbent material.
4	Soak the spill area with appropriate disinfectant. Pour the disinfectant from the outside surface of the absorbent material towards the inside.
5	Leave the disinfectant on for 20 to 30 minutes.
6	Pick up the absorbent material and place in yellow biohazard bags. Pick up any broken glass or sharps as you encounter them with forceps or tongs and place them in the sharps container.
7	Once the primary spill has been controlled, all items within the cabinet should be disinfected (walls and surfaces wiped down, equipment wiped down and/or autoclaved).
8	Allow the ventilation to run for 10-15 minutes.
9	Inform other personnel and remove signage once clean-up is complete.

Step	Action
Spills of Blood and Bodily Fluid in Open Areas	
1	Notify personnel and area Supervisor. **If an aerosol is generated (or the risk exists), hold your breath and quickly leave the area. Close the door and post a warning sign. Evacuate the area for at least 30 minutes and allow aerosols to settle.**
2	Remove any contaminated clothing.
3	Thoroughly wash exposed skin with soap and water.

4	Cover the spill area with paper towels or absorbent material.
5	Using an appropriate disinfectant cover the spill area. Pour disinfectant from the outside, towards the inside of the spill. Allow the disinfectant to act for 20 minutes.
6	Pick up any broken glass with forceps and place in a sharps container.
7	Pick up absorbent material and place in yellow biohazard bags.
8	Once the primary spill has been contained, thoroughly wipe down the spill zone and adjacent areas with disinfectant.
9	Inform other personnel and remove signage once clean-up is complete.

Step	Action
Spills Involving CL-1 or CL-2 Containment (Laboratory or Biohazardous Waste Room)	
1	Notify personnel and area Supervisor. **If an aerosol is generated (or the risk exists), hold your breath and quickly leave the area. Close the door and post a warning sign. Evacuate the area for at least 30 minutes and allow aerosols to settle.**
2	Remove any contaminated clothing.
3	Thoroughly wash exposed skin with soap and water.
4	Cover an area twice the size of the spill area with paper towels or absorbent material.
5	Using an appropriate disinfectant cover the paper towels or absorbent material. Pour disinfectant from the outside, towards the inside of the spill. Allow the disinfectant to act for 20 minutes.
6	Pick up any broken glass with forceps and place in a sharps container.
7	Pick up absorbent material and place in yellow biohazard bags.
8	Once the primary spill has been contained, thoroughly wipe down the spill zone and adjacent areas with disinfectant.

9	Inform other personnel and remove signage once clean-up is complete.

DECONTAMINATION AND DISPOSAL:

- Dispose of clean-up materials in appropriate biohazard container/bags. Where required, decontaminate (autoclave) prior to disposal.
- Contaminated equipment and clothing must also be decontaminated.

REPORTING:

- Report to area Supervisor and/or Biosafety Officer.
- Complete a RiskPro Online Incident Report Form.
- If required, complete a Code Brown Evaluation Form.
- Report injuries to the Worker's Safety and Compensation Commission by completing the Worker's Report of Injury. The Supervisor will complete the Employer's Report of Injury Form.
- The spill will be reported to the Occupational Health and Safety Officer and License Holder (for CL-2 spills) by either the Biosafety Officer or the Supervisor.

RELATED DOCUMENTS:

- Code Binder
- PSDS sheets (if applicable)
- WSCC Forms (if applicable)

REFERENCES:

- Columbia University. (2008). *Biological Spills: Clean-up Procedures.* Retrieved January 30, 2012, from Environmental Health and Safety: http://www.ehs.columbia.edu/biospill.html

- Office of Risk Management. (2010, October 22). *Biological Spills.* Retrieved January 30, 2012, from Spill Response: http://www.uottawa.ca/services/ehss/biospill.htm
- Public Health Agency of Canada. (2004). *Laboratory Biosafety Guidelines.* Ottawa, Ontario: Minister of Health.
- Public Health Agency of Canada. (2011, February 18). *Mycobacterium tuberculosis, Mycobacterium bovis - MSDS.* Retrieved September 9, 2011, from Material Safety Data Sheet - Infectious Substances: http://www.phac-aspc.gc.ca/lab-bio/res/psds-ftss/msds103e-eng.php

Appendix C: Code Brown Evaluation Form

Occurrence Date/Time	Location	Hazardous Material
Description of the Incident		
Personnel Involved		
Actions Taken and Outcome		
Level of Response Used: _____		

Evaluation (Strengths/Weaknesses)
Strengths: **Weaknesses:**
Recommendations for Improvement

Signature, Manager Date

Signature, Code Brown Team Date

Signature, OH&S Coordinator Date

Appendix D: Location of Spill Kits

Type of Spill Kit	Photo of Spill Kit	Location
Chemical Spill Treatment Kit		• Laboratory • Laundry • Hallway outside Facility Services • Hallway outside Dialysis • L&D Hallway • Hallway outside Medical Daycare • Medical Centre
Formaldehyde/Solvent Spill Treatment Kit		• Laboratory • Operating Room • Eye Clinic • Medical Day Care
Biological Spill Treatment Kit		• Laboratory • Biohazardous Waste Room • In-service Classroom • Obstetrics (2) • Emergency Department • Intensive Care Unit • Surgery (2) • Surgical Day Care • Operating Room • Medical Day Care • Medical Device Reprocessing • Medical Clinic • Medical Center • Pediatrics

- Other department specific spill kits and procedures may also be available.
- Please check with area supervisor.
- It is recommended that each area provides a copy of the department specific spill procedure(s) at the end of this document.
- It is the supervisor's responsibility to ensure that team members are trained in its use.