

Northern Health and PRRD Biohazard Waste Segregation Discussions for FSJH&PV Facility



Overview and Objectives

- Where issue started
- What was done
- Staff training and segregation monitoring
- Regulation references
- Ongoing concerns and pressures
- Next steps



Where Issue Started

- Oct 31 2024 – FSJ landfill noted concerns with receiving a daily rolling 30 yard green bin load containing biohazard waste. Items of concern included empty syringes with residual blood, empty baggies previously used for specimen transport, and clear empty syringes, tubing and blood stained gauze.
- Prior to the message being communicated to FSJH, a second daily bin was delivered Nov 1 2024, with which the FSJ landfill expressed similar concerns, the WM bins were locked out and notification given to NH that the FSJ Landfill would not receive any further bins from FSJH&PV prior to those bins being fully sorted.



What Was Done

- NH immediately contracted Jock's Restoration to begin sorting general waste to remove any residual biohazardous waste not properly segregated
- Sorting applied was in line with biohazardous waste regulations and Daniel's education poster
- Fully sorted bin was taken to FSJ Landfill and refused due to items deemed acceptable on Daniel's poster but not deemed acceptable by FSJ Landfill (clear tubing, gauze with dried blood, not saturated, etc). FSJ Landfill refused to reload bin with machine, Jock's forced to reload by hand.
- Waste continued to be refused and accumulated in hospital hallways, corridors and storage rooms.



Staff Training & Segregation Monitoring

- Mandatory immediate re-education of biohazardous waste segregation course by all FSJH/PV facility staff, manager meetings and staff huddles occurred daily then multiple times per week
- Close segregation monitoring of general waste by internal Environmental Services and manager review/follow up daily where inappropriate items found
- Continuous conversations with staff as requested segregation was confusing as it significantly exceeded Daniel's guidance poster and education materials – by example, clear tubing and non-saturated surgery gowns should be acceptable in general waste but was segregated to ensure general waste would be accepted at landfill
- Staff told must segregate all tubing, syringes, items with blood even if only trace blood on them, IV bags and syringes must be empty (even if clear liquid)



Segregation Monitoring continued...

- Jock's Restoration agreed to accept daily 30 yard bins at their lot and used open shop to do hand sorting mandated by PRRD until two consecutive fully cleared bins were acquired.
- This continued for 10+ days as Jock's continued to find items in the general waste that are acceptable based on Ministry regulation (clear tubing, empty syringes, items with trace blood) but would not be accepted by the landfill. This was due to continued NH staff confusion for items showing as acceptable on the Daniel's guidance poster that they were being asked to segregate.
- In efforts to reduce quantity and product type that Jock's needed to hand sort, approval received from PRRD that FSJ landfill would accept waste bins from FSJH/PV that were strictly kitchen waste, approx. 10% of facility accumulation; these bins were not permitted to include any general waste from clinical depts



Segregation Monitoring continued...

BIOMEDICAL WASTE SEGREGATION							
WASTE CLASS	NON-ANATOMICAL WASTE Autoclave/Landfill	SHARPS Sterilization/Autoclave	ANATOMICAL Incineration	CYTOTOXIC WASTE Incineration	PHARMACEUTICAL Incineration	DRAIN	GARBAGE Landfill
	<p>Any items saturated with, dripping with, or containing blood or body fluids.</p> <ul style="list-style-type: none"> Saturated or dripping items: <ul style="list-style-type: none"> Pads, sponges & gauze Bandages Masks & gloves Disposable surgical drapes and gowns Some items containing blood/body fluids: <ul style="list-style-type: none"> IV bags and tubing Suction liners Fluid drainage containers Pleurevac and Hamovac units <p>DO NOT Include</p> <ul style="list-style-type: none"> Hair, teeth, nails Diapers, urine or feces, unless visibly contaminated with blood 	<p>Items capable of cutting or puncturing the skin and that have come into contact with blood, body fluids or microorganisms.</p> <ul style="list-style-type: none"> All needles and devices containing needles or spikes Broken medical glassware Contaminated scalpel blades, scissors, razors Lancets <p>DO NOT Include</p> <ul style="list-style-type: none"> Cytotoxic Sharps Pharmaceuticals as run off from waste processing goes into the ocean 	<p>Human tissue, organs, and body parts.</p> <ul style="list-style-type: none"> Human tissue Body parts <p>DO NOT Include</p> <ul style="list-style-type: none"> Hair, teeth and nails (dispose of in garbage container) 	<p>Waste that has come into contact with Cytotoxic agents.</p> <ul style="list-style-type: none"> IV bags and tubing Any cytotoxic sharps Urine bags and diapers/briefs Gloves and masks Pads, sponges and gauze Disposable surgical gowns and drapes 	<p>All prescription medications and non-prescription medications including narcotics, controlled and non-controlled drugs.</p> <ul style="list-style-type: none"> Narcotics, controlled and non-controlled drugs Injectable orals solids and liquids Patches Hazardous low reproductive risk Hazardous low risk Empty vial and ampoules Clean syringes and needles Patient labels <p>DO NOT Include</p> <ul style="list-style-type: none"> Cytotoxic medications Liquids approved to go down the drain 	<p>Some waste that can safely go down the drain. DO NOT use hand hygiene sinks.</p> <ul style="list-style-type: none"> IV fluids <ul style="list-style-type: none"> NS D5W Ringer's Lactate 2/3-1/3 Mannitol (Osmitol) Electrolytes <ul style="list-style-type: none"> Ca chloride Ca gluconate K or Na phosphate Mg sulphate Enteral/parenteral solutions and unused dialysate solution <ul style="list-style-type: none"> Medication free (ie. without ranitidine, insulin or antibiotics) 	<p>Items NOT saturated or dripping with blood or body fluids containing blood. These items are NOT appropriate for recycling</p> <ul style="list-style-type: none"> Empty IV bags and tubing Uncontaminated gloves and masks General isolation room waste Soiled dressing pads, sponges and gauze Feminine hygiene products Diapers/briefs urine feces Empty medical waste containers Disposable surgical gowns and drapes Hair, teeth and nails Syringes without needles Catheters
CONTAINER							
				CYTOTOXIC SHARPS NEED TO BE PLACED INTO A COMPLIANT RED SHARPS CONTAINER			
							WWW.DANIELSHEALTH.CA

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Regulation References

- Canadian Council of Ministers of the Environment (CCME) Guidelines were referenced at a site level, NH regional level, and in discussion with PRRD to support compliance with segregation discussions and as reference for determining items that should be considered acceptable in general waste
- Ministry of Environment Canada guideline, specifically pages 3-4, provided definitions and guidance on items still being refused by FSJ landfill
- In discussion with PRRD, both parties obtained legal and contractual clarifications towards consensus on the definition to define “saturated blood”.


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Regulation References

- CCME Guidelines included definition and guidance on many items still not being unaccepted at the landfill

Defining Biomedical Waste

2.1 General

Biomedical waste represents a small proportion (typically 10 to 15%) of the total volume of waste generated by health care facilities. Such waste requires proper handling and disposal because of environmental, aesthetic, and occupational concerns, as well as risks to human health.

While any item that has had contact with blood exudates or secretions may pose a hazard, it is not usually considered practical or necessary to treat all such waste as biomedical waste. Thus, the following items should be considered general waste: soiled dressings; sponges; surgery drapes; lavage tubes; casts; catheters; disposable pads; disposable gloves; specimen containers; lab coats and aprons; and dialysis wastes, such as tubing, filters, towels, and disposable sheets.

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Ongoing Concerns and Pressures

- NH has had to make arrangements with Daniels for incineration of 10+ days of general waste refused by the landfill. Logistics are almost in place for trucking this south with TDG permit – total disposal cost of \$45,190 (pre-tax)
- Costs incurred for contractor to support, sort and re-sort general waste over and above Daniel's poster guidelines - \$73,399.81
- Due to outstanding consensus between NH and PRRD on acceptable general waste items that meet CCME guidelines, e.g. items with blood on them but not saturated, clear tubing from operating room and hemodialysis, FSJH/PV facility continued to struggle with the increased quantity of segregated biohazard accumulation.
- Biohazard waste accumulation is more than two times greater than previous accumulations, with increased costs for accumulation containers throughout the facility, increased cost for disposal boxes and liners, and increased costs for disposal due to increased pick up schedule necessary and increased number of boxes.


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Ongoing Concerns and Pressures...

- Storage pressures for increased biohazard accumulation – previous 4 week pick-up schedule increased to biweekly, with additional 225+ boxes accumulated in 4 week period, far exceeding biohazard cooler capacity
- Continued confusion for staff and agency staff working at multiple sites, having to apply a higher level of biohazard segregation practice at FSJH/PV facility



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Next Steps to return to normal operations

Discussion transpired between NH and PRRD on Feb 7/25 to review definitions and segregation agreement

Agreement outcomes of this discussion include the following:

1. **Definition of “Saturated (with blood)” means that an item will release liquid or semi-liquid blood if compressed.**
2. Regular Waste - Fabric materials including dressing pads, sponges, gauze, surgical gowns, and drapes will be considered Regular Waste even if they contain some amount of blood on them.
3. Biomedical Waste - These same items will only be considered as a biomedical waste if they are completely soaked with blood and able to release blood when compressed.

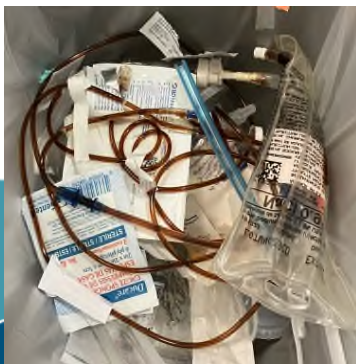


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Next Steps to return to normal operations

4. Regular Waste – Medication is not put in saline, they are direct administered. We use IV Pumps which infuse into the IV not into the IV Bag. IV bags after emptied of residual saline will be Regular Waste.
5. Regular Waste – Tubing from Iodine infusions (reddish brown tinge) and renal hemodialysis tubing (light red) acceptable as general waste, pictured below:

Iodine infusion tubing:



Renal hemodialysis tubing:



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Next Steps to return to normal operations

6. Allow for direct conversation between management at the Peace River Regional District and Northern Health Operations to allow a venue for quality process to ensure questions are answered and concerns are addressed with respect to waste handling.
7. Back to normal operations for biohazard waste segregation with acceptance of these regular waste items starting the week of Feb17/25
8. Clear education of team, across NH to continue, with additional training as issues are identified.



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Questions?

