

HANDOUT 1

Excerpts* from
NPD CLOSURE PROJECT
DRAFT EFFLUENT FOLLOW-UP MONITORING PLAN

*Full plan is available on www.CNL.ca 64-509200-PLA-003 (Revision 1)

2019 April 24

Breakfast Briefing

Deep River Public Library

Figure 7-2 NPDWF Effluent Release Locations and Monitoring Locations

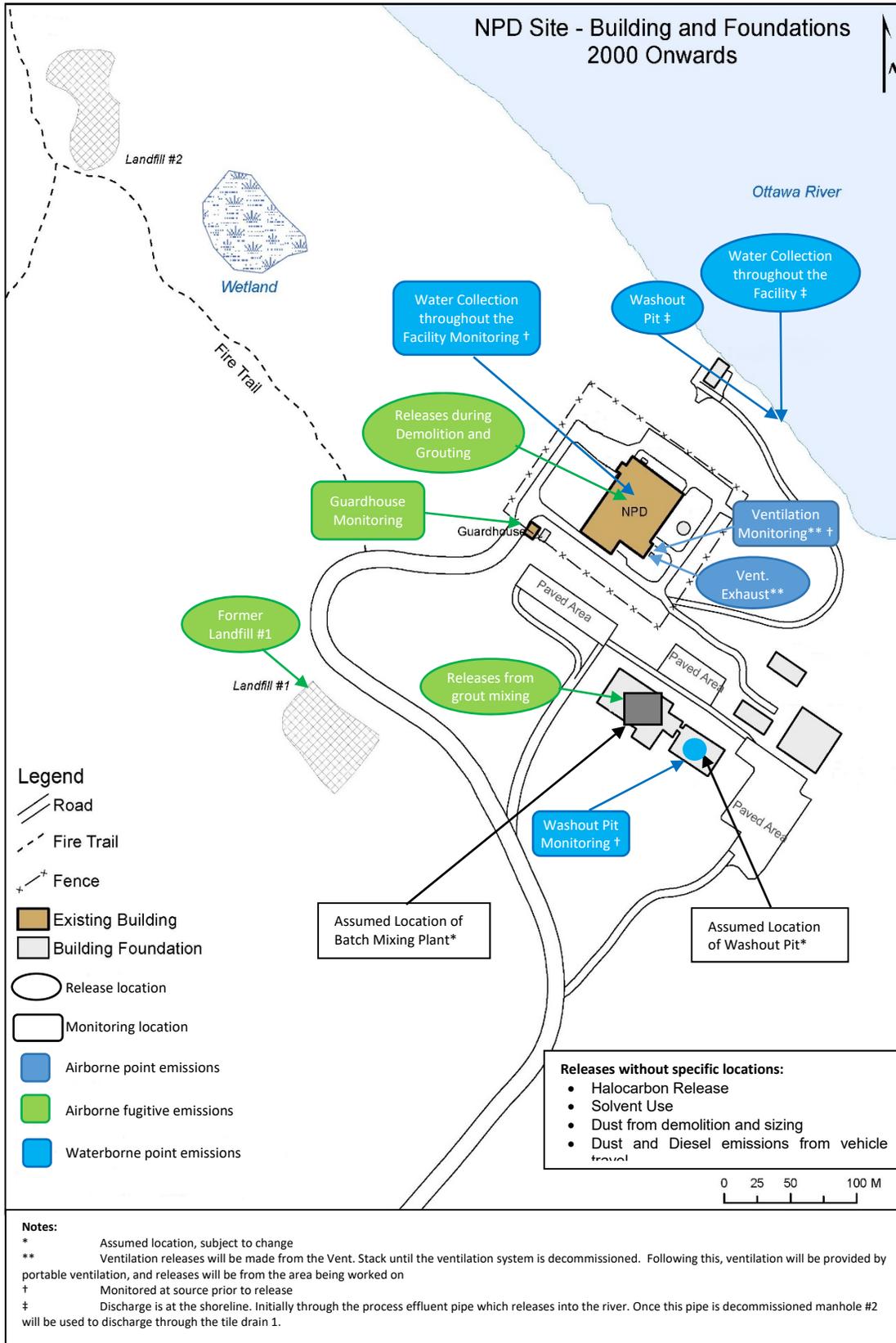


Table 7-31 Summary of Effluent Monitoring during the Decommissioning Execution (DE) Phase

	Effluent Stream	Monitoring Required (Y/N)	Parameter	Monitoring Required (Y/N)	Sample Collection Medium	Monitoring Frequency	Analysis Frequency	
Airborne Emissions	Ventilation exhaust	Y	Tritium (HTO)	Y	Distilled water bubblers	Continuous while exhaust fan running	Monthly	
			Gross Beta Activity	Y	Filter media	Continuous while exhaust fan running	Monthly	
			Gross Gamma	N				
			Gross Alpha	N				
			Carbon 14	N				
			Flow	Y	N/A	Monthly	N/A	
			Free Run Time	Y	N/A	Monthly	N/A	
	Fugitive releases from the main building non-nuclear area	N						
	Fugitive releases from the external areas or structures	N						
	Release of surface contamination during demolition	Y	Tritium (HTO)	Y	Distilled water bubblers (HVAS)	Continuous during demolition	Monthly	
			Gross Beta/Gamma	Y	Filter media (HVAS)	Continuous during demolition	Monthly	
			Cobalt-60	Y	Monitored as gross beta/gamma			
			Cesium-137	Y	Monitored as gross beta/gamma			
			Lead	Y	Filter media (HVAS)	Continuous during demolition	Monthly	
			Flow	Y	N/A	Monthly	N/A	
			Free Run Time	Y	N/A	Monthly	N/A	
	Displacement of air during grouting of below grade structures	Y	Tritium (HTO)	Y	Distilled water bubblers (HVAS)	Continuous during grouting	Monthly	
Gross Beta			Y	Filter media (HVAS)	Continuous during grouting	Monthly		
Gross Gamma			N					
Gross Alpha			N					

Effluent Stream		Monitoring Required (Y/N)	Parameter	Monitoring Required (Y/N)	Sample Collection Medium	Monitoring Frequency	Analysis Frequency	
			Lead	Y	Filter media (HVAS)	Continuous during grouting	Monthly	
			Asbestos	Y	Filter media (HVAS)	Continuous during grouting	Monthly	
			Flow	Y	N/A	Monthly	N/A	
			Free Run Time	Y	N/A	Monthly	N/A	
	Halocarbon release	Y	Halocarbons	Y	N/A	Per release	N/A	
	Solvent use	Y	Solvent Use	Y	Estimation of hours worked and source	Annually	N/A	
	Dust emissions	Y	TSP	Y	Filter media (HVAS)	Continuous	Monthly	
			PM ₁₀	Y	Filter media (HVAS)	Continuous	Monthly	
			PM _{2.5}	Y	Filter media (HVAS)	Continuous	Monthly	
	Noise Emissions	Y	Monitored in EMP					
	Diesel Emissions	Y	NO ₂	Y	Air	Continuous	Monthly	
			SO ₂	Y	Air	Continuous	Monthly	
			Dust (TSP, PM ₁₀ , PM _{2.5})	N				
Greenhouse Gas			Y	Estimation of hours worked and releases	Monthly	N/A		
	Estimate of GHG released (tonnes)	Annually		N/A				
Former Landfill 1	Y	Greenhouse Gas	Y	Estimation of GHG Emission	Annually	N/A		
Waterborne Emissions	Water collection points throughout the facility	Y	Tritium (HTO)	Y	Manual liquid grab	Prior to every batch discharge	One per batch	
			Gross Beta Activity	Y	Manual liquid grab	Prior to every batch discharge	One per batch	
			Gross Gamma	N				
			Gross Alpha	N				
			Carbon-14	N				
			Mercury	Y	Manual liquid grab	Prior to every batch discharge	One per batch	

	Effluent Stream	Monitoring Required (Y/N)	Parameter	Monitoring Required (Y/N)	Sample Collection Medium	Monitoring Frequency	Analysis Frequency
			Lead	Y	Manual liquid grab	Prior to every batch discharge	One per batch
			Iron	Y	Manual liquid grab	Prior to every batch discharge	One per batch
			Total PCBs	Y	Manual liquid grab	Prior to every batch discharge	One per batch
			Total Dioxins & Furans	Y	Manual liquid grab	Prior to every batch discharge	One per batch
			Volume Discharged	Y	N/A	Per batch	One per batch
	Subsurface drainage	Y	Monitored in EMP and GWMP				
	Surface water drainage	Y	Monitored in EMP				
	Washout pit	Y	Tritium (HTO)	Y	Manual liquid grab	Prior to every batch discharge	One per batch
			Total Suspended Solids	Y	Manual liquid grab	Prior to every batch discharge	One per batch
			pH	Y	Manual liquid grab	Prior to every batch discharge	One per batch
			Volume Discharged	Y	N/A	Per batch	One per batch

Table 7-32 Summary of Effluent Monitoring Program during the Institutional Controls (IC) Phase

	Effluent Stream		Monitoring Required (Y/N)	Parameter	Monitoring Required (Y/N)	Sample Collection Medium	Monitoring Frequency	Sample Collection Frequency
Airborne Emissions	Fugitive releases through the cap and barrier		Y	Monitored in EMP				
	Dust emissions		Y	TSP	N			
				PM ₁₀	N			
				PM _{2.5}	N			
				Hours worked	Y	Estimation of hours worked	Annual	N/A
				Vehicle kilometers travelled	Y	Estimation of vehicle kilometers traveled	Annual	N/A
	Diesel emissions		Y	NO ₂	N			
				SO ₂	N			
				Dust (TSP, PM ₁₀ , PM _{2.5})	N			
				Hours Worked	Y	Estimation of hours worked	Annual	N/A

ACRONYMS

GHG – Greenhouse Gas
 HVAS – High Volume Air Sampler
 PCB – Polychlorinated Biphenyl
 PM – Particulate Matter
 TSP – Total Suspended Particulate

N/A – Not Applicable