

ODOUR MANAGEMENT MATRIX

Potential Odour Sources	Activities*	Normal Operations	Operational Devices	Operation in Low Potential Odour Conditions	Operation in High Potential Odour Conditions*
GORE Composting Operation					
	Biosolids/ wood chips mixing	6:00 to 15:00, Monday to Friday	Windsocks, station dataWeather	Finish by 15:00	Finish by 15:00
	Building piles	6:00 to 15:00, Monday to Friday	Windsocks, station dataWeather	No restrictions	Finish by 15:00, staff to check temperature and wind conditions to potentially delay process
	Moving piles	7:00 to 15:00, Monday to Friday	Windsocks, station dataWeather	Cover by 16:00	Cover by 15:00, Staff to check temperature and wind conditions to potentially delay process
	Hauling and stockpiling dewatered biosolids	22:00 to 07:00 Sunday; 22:00 to 15:00 Monday to Thursday	Windsocks, station dataWeather	22:00 to 07:00 Sunday; 22:00 to 15:00 Monday to Thursday	22:00 to 6:00 Sunday toThursday
Compost Cure Site Operations					
	Biosolids - pile formation	6:00 to 15:00 Monday to Friday	Windsocks, station dataWeather	No restrictions	Finish by 15:00, staff to check temperature and wind conditions to potentially delay process
	ECF unfinished compost - pile formation	24/7 in operational intervals	Windsocks, station dataWeather	No restrictions	Spray piles with ADC/Ecosorb (odour control mixture) last shift and first shift each day
	Pile turning	8:00 to 15:00, Monday to Friday	Windsocks, station dataWeather	Finish by 15:00	Finish by 15:00, staff to check temperature and wind conditions to potentially delay process, and spray piles with ADC/Ecosorb (odour control mixture) if still odorous
	Product inventory	8:00 to 19:00	Windsocks, station dataWeather	No restrictions	No restrictions
	Final product screening	6:00 to 19:00	Windsocks, station dataWeather	No restrictions	No restrictions
	Yard waste receipt	Usually in spring/fall, 7:30 to 19:00	Windsocks, station dataWeather	No restrictions	No restrictions
	Receipt of 2" minus feedstock from IPTF	24/7 in operational intervals	Windsocks, station dataWeather	No restrictions	Amend and cover with wood chips, spray piles with ADC/Ecosorb (odour control mixture) last shift and first shift each day
	Yard waste storage	24/7 in operational intervals	Windsocks, station dataWeather	Cover daily with wood chips	Cover daily with woodchips
	Yard Waste De-Bagging	6:00 to 16:00, Monday to Friday	Windsocks, station dataWeather	6:00 to 16:00, Monday to Friday	Finish by 15:00, staff to check temperature and wind conditions to potentially delay de bagging process
	Yard Waste Turning	6:00 to 16:00, Monday to Friday	Windsocks, station dataWeather	6:00 to 16:00, Monday to Friday	Finish by 15:00, staff to check temperature and wind conditions to potentially delay curing process
Edmonton Composting Facility					
	Dredge operation - Lagoon Cell 5	24/7 in operational intervals	Windsocks, station dataWeather	Aerator shut off during non-freezing periods	Aerator shut off during non-freezing periods
	Receipt of Pre-processed MSW from IPTF	7:30 to 19:00	Scada system in ECF (differential pressure)	Maintain negative building pressures, operate EcoSorb system as per operational procedure	Maintain negative building pressures, operate EcoSorb system as per operational procedure
	Direct receipts of loads to ECF tip floor (through overhead doors)	7:30 to 19:00	Scada system in ECF (differential pressure)	Maintain negative building pressure, keep duration as short as possible, operate EcoSorb system as per operational procedure	Maintain negative building pressure, keep duration as short as possible, operate EcoSorb system as per operational procedure
	All MSW storage on ECF tip floor	48 to 60 hours	Scada system in ECF (differential pressure)	Maximum feedstock storage 96 hours, operate EcoSorb system as per operational procedure	Maximum feedstock storage 96 hours, operate EcoSorb system as per operational procedure
	Tip floor truck loading	24/7 in operational intervals	Scada system in ECF (differential pressure)	Keep discard bay doors closed when no truck is parked, operate EcoSorb system as per operational procedure	No hauling, operate EcoSorb system as per operational procedure
	Mixing drum and stationary drum conveyors download	As space available, 24/7	Scada system in ECF (differential pressure)	Maintain negative air pressure in download building	Maintain negative air pressure in download building
	Loadout primary residuals	As space available, 24/7		Keep primary residuals doors closed	Keep primary residuals doors closed
	Primary residuals management	24/7 in operational intervals	Scada system in ECF (differential pressure)	Maintaining negative building pressure, disposal in external landfill until RDF opens	Maintaining negative building pressure and disposal in external landfill until refuse derived fuel operation starts
	Loading bays	As space available, 24/7	Scada system in ECF (differential pressure)	Maintain negative building air pressure, keep all doors closed – delay, if possible maintenance where doors are required to be open	Maintain negative building air pressure and keep all doors closed. Delay, if possible, maintenance where doors are required to be open
	Sorain turning operation	24/7 in operational intervals	Scada system in ECF (differential pressure)		
	Bay download	As space available, 24/7	Scada system in ECF (differential pressure)		
	Finishing circuit operation (Secondary residuals and unfinished compost)	24/7 in operational intervals		No restrictions	If necessary, use portable odour misting system
	Secondary residuals - truck loading	24/7 in operational intervals	Windsocks, station dataWeather	Residuals transferred to external landfills	Residuals transferred to external landfills and use portable odour misting system
	Unfinished compost - truck loading	24/7 in operational intervals	Windsocks, station dataWeather	Option of positioning of portable odour misting system	If necessary, use portable odour misting system

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	Blower system	24/7	Scada system in ECF (differential pressure)	No restrictions	No restrictions but option to introduce odour absorbing agents available.
	Biofilter	24/7	Field olfactometer, pressure and temperature readings	No restrictions	If necessary, use portable odour misting system around biofilter area
	ECF Facility Management	24/7	Scada system in ECF (differential pressure)	Drain standing water, site clean up, clean up spilled biosolids.	Drain standing water, site clean up, clean up spilled biosolids.
Integrated Process and Transfer Facility (IPTF)					
	Phase I - Transfer Station	7:00 to 19:00	Weather station data	Maximum residential (putrescible) waste storage 96 hrs. ,operational objective to clean residential (putrescible) waste from tip floor at the end of the day, covered trailers in staging area, operate EcoSorb system as per operational procedure	Maximum residential (putrescible) waste storage 96 hrs. ,operational objective to clean residential (putrescible) waste from tip floor at the end of the day, application of odour neutralizing granulate when possible, adjustment of fans after operating hours, covered trailers in staging area, operate EcoSorb system as per operational proceduro, potential diversion of Collections trucks to external landfills if available.
	Phase II- Pre-processing	7:00 to 19:00	Weather station data	Minimize doors opening, operate EcoSorb system as per operational procedure	Operate EcoSorb system as per operational procedure, minimize door opening
	Phase III - Refuse Derived Fuel	Not in operation			
	Material movement outside IPTF	7:00 to 19:00	Weather station data	No restrictions	Delay secondary material processing activities
Clover Bar Landfill					
	Operation of tipping area for internal needs	7:00 to 19:00	Weather station data	Landfill Closed - only non odourous inert materials are being stockpiled at this site.	Landfill Closed - only non odourous inert materials are being stockpiled at this site.
	Leachate pumping	7:00 to 19:00	Weather station data	No restrictions	No usage of vacuum truck and no hauling of leachate solids to Clover Bar landfill, emergency situation excepted.
	Landfill gas management	24/7	Weather station data, gas alarm meters, perimeter gas well analysis	Landfill capping, LFG perimeter gas well management,	Landfill capping, LFG perimeter gas well management
EWMC Site					
	Overall site management	7:00 to 19:00	Weather station data	Drain standing water, site clean up, clean up spilled materials.	Drain standing water, site clean up, clean up spilled materials
Biosolids Lagoon (Owned buy Drainage Services and operated by EPCOR)					
	Receive stablized wastewater sludge via pipeline from Gold Bar WWTP	Continuous: 24/7/365	None	Stablized sludge is pumped into Cell#5 below the water surface.	Stablized sludge is pumped into Cell#5 below the water surface.
	Receive truck hauled stablized wastewater sludge from ACRWC WWTP	Daily Monday to Saturday o8:00 to 20:00	Below surface discharge pipe on Cell#3W	Stablized sludge is discharged into Cell#3W below the water surface during Nutrigold off-season. Stablized sludge is discharged into Cell#3E above the water surface during Nutrigold season. (June - Oct)	Stablized sludge is discharged into Cell#3W below the water surface during Nutrigold off-season. Stablized sludge is discharged into Cell#3E above the water surface during Nutrigold season.
	Tranfer of Cell#5 supernatant to Cell#2	As required. Pumping is done around the clock until supernatant levels in Cell#5 reduced to acceptable levels	None	Supernatant is pumped from Cell#5 to Cell#2. Discharge is normally below surface	Supernatant is pumped from Cell#5 to Cell#2. Discharge is normally below surface
	Decanting of supernatant and transfer to Cell#4	As required. Pumping is done around the clock until supernatant levels in the working cells is reduced to acceptable levels	None	Supernatant is pumped from various Cells to Cell #4. Discharge is normally below surface of Cell#4	Supernatant is pumped from various Cells to to Cell #4. Discharge is normally below surface of Cell#4
	Supernatant pumping from Cloverbar to WWTP's	Continuous: 24/7/365	None	All supernatant pumping from Cell#4 occurs below the liquid surface	All supernatant pumping from Cell#4 occurs below the liquid surface
	Loading of Nutrigold trucks	6:30 am - 5:30 pm June - October	None	Nutrigold trucks are loaded using pumping and piping infrastructure. Biosolids from Cell#3W eneter the tanker via an extended shoot into the top of the tanker.	Nutrigold trucks are loaded using pumping and piping infrastructure. Biosolids from Cell#3W eneter the tanker via an extended shoot into the top of the tanker.
	Recirculation of biosolids during Nutrigold loading	6:30 am - 5:30 pm June - October	None	Biosolids in Cell#3W are circulated during the periods when the Nutrigold trucks are being loaded. Discharge is usually above the surface.	Biosolids in Cell#3W are circulated during the periods when the Nutrigold trucks are being loaded. Discharge is usually above the surface.

* High Potential Odour Conditions include - winds blowing towards the communities to north, northwest, or west, calm or very light wind conditions, forecasts indicating that any of these conditions will arise within the next few hours. The high risk condition would be considered to be amplified when these conditions are paired with pleasant outdoor temperatures, which would be expected to draw people outside."