

2021 ODOUR MANAGEMENT & MITIGATION MONITORING REPORT



Submitted By:

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1. Executive Summary

The Durham York Energy Centre (DYEC), respectfully submits the 2021 Annual Odour Management and Mitigation Monitoring Report (OMMMR) covering operations encompassing November 1, 2020 to October 31, 2021.

Under the Environmental Assessment Act – Notice to Proceed with Undertaking EA File No. 04-EA-02-08 (Section 18), as well as the multi-media Environmental Compliance Approval (ECA) number 7306-8FDKNX (Condition 8. (8)) issued by the Ministry of the Environment, Conservation and Parks (MECP), an Odour Management and Mitigation Plan (OMMP) was required prior to construction of the DYEC or by such other date as agreed to in writing by the Director. The OMMP became effective upon initial receipt of non-hazardous municipal solid waste on February 9th, 2015.

In addition, the preparation and approval of a Containment Test Protocol was required pursuant to *ECA Condition 8. (7)* prior to the receipt of waste at the DYEC. The Containment Test Protocol recognized that “as it is not practicable to measure air velocity or pressure within the tipping building, the smoke test was determined to provide visualization of the flow of combustion air, odours and dust, and hence demonstrate the design of DYEC to manage and mitigate odours from waste stored before combustion”. The Containment Test Protocol was approved by the MECP on September 20th, 2014 and the DYEC was directed to conduct periodic inspections identified in the Containment Test Protocol which thus fulfills *ECA Condition 8. (1)(b)(i)* to undertake a test to measure the worst-case scenario negative air pressure atmosphere throughout the Tipping Hall.

The OMMP requires the preparation and submission of an OMMMR to the MECP York Durham Regional Director every 12 months until such time that the Director notifies DYEC that the OMMMR is not required. The initial OMMMR was submitted on November 26th, 2015 and included the results of odour testing and modelling of potential impacts to sensitive receptors. Subsequent reports were submitted on December 23rd, 2016, November 24th, 2017, November 26th, 2018, November 26th, 2019, and November 25th, 2020. This OMMMR represents the seventh submittal. The scope of this OMMMR follows the activities detailed by the OMMP and the Containment Test Protocol applicable to the control of odours:

- Normal Operations Odour Control
- Inspection and Maintenance
- Monitoring, Recording and Reporting
- Shutdown or Disruption of Operations
- Odour Complaint Response Procedure

2. Normal Operations Odour Control

The application of good working practices and process control is of fundamental importance in eliminating and minimizing the quantities of odours formed on site and their subsequent release to the atmosphere. Containment and mitigation of odour at the source through standard operating procedures (SOP's) is proven and effective. The overall aim in the operation of the DYEC is to apply Best Management Practices at all stages of the waste treatment processes undertaken on site. Waste received for processing may include odourous substances. Potential odour emission sources may include truck transportation,

handling, and storage of waste during normal operations and thermal treatment of waste on site. The following sections explain mitigation procedures for potential DYEC odour sources during normal operations.

2.1 Truck Transportation

The Regions of Durham and York have advanced waste management programs for source separation and diversion of waste from landfills. Specifically, the diversion of household organic waste reduces the amount of potential odour generating waste that reaches the DYEC.

All vehicles hauling municipal solid waste to the DYEC have been approved by the MECP. All waste under these waste management system approvals must be transported in a covered vehicle.

Table 1: MSW (Municipal Solid Waste) Hauler Waste Management System ECA's

Hauler	MECP ECA #
Challenger Motor Freight Inc.	A841577
U-Pak Disposals Limited	A8597
J.E. Culp Transport	A820843

The Scale House Operator performs a cursory inspection of hauler vehicles both upon arrival and departure, specifically ensuring covers and tarps are present and there are no obvious leaks or dripping waste. There were no hauler vehicles cited for absent covers, leaks or drips nor were there any incidents of queueing of MSW trucks outside the facility on municipal roadways during the reporting period.

Site personnel monitor the grounds and roadways for litter daily. Any waste that has fallen from the trucks is either picked up during the daily operator rounds, weekly sweeper truck rounds, or monthly site wide clean-up. This work is documented in operator check sheets that are archived at the DYEC.

2.2 Handling and Storage of Waste during Normal Operations

The Tipping Hall entrance and exit are equipped with high-speed doors to control potential fugitive emissions (odour or dust) during the truck unloading process. These doors are positioned closed except to facilitate the entry, positioning, and exiting of waste delivery trucks. MSW offload, or loading of Unacceptable Waste, will not commence until both entrance and exit doors are closed. All trucks remain covered/closed until they enter the Tipping Hall, reducing the potential for the release of odour emissions. On an hourly basis, one MSW truck is directed to unload on the Tip Floor. Trained operating personnel perform a visual inspection and any necessary sorting of this waste, which also includes recording the presence of any extreme odours coming from the incoming MSW vehicles. These results are recorded on the Waste Screening Report and are archived at the DYEC. See Appendix 1 for a copy of the Waste Screening Report.

The outdoor storage of waste, whether in or out of transport vehicles, is not permitted with the exception of compressed gas cylinders removed as Unacceptable Waste. Per the Fire Department, these are not to be stored indoors.

2.3 Thermal Treatment of Waste

Under normal operating conditions, one or two combustion trains are online. Combustion air is drawn through the Tipping Hall by the thermal treatment units' combustion air fans through large air inlet ducts above the pit. The process of inducing combustion air flow through the Tipping Hall and across the refuse pit area prevents fugitive dust and odours from escaping into the environment. Potential malodorous air is drawn into the furnace and expended via direct exposure to the flame and high temperature oxidation that occurs during the combustion process. A system of manually adjustable louvers on the north wall controls the amount of make-up air that is admitted to the Tipping Hall from the outside environment. These louvers are adjusted as necessary to ensure odours remain contained within the Tipping Hall and pit area.

2.4 Preventative and Control Measures at the Facility

The DYEC employs numerous preventative and control measures at the facility for odour abatement as listed in Table 2 below.

Table 2: Description of Odour Preventative and Control Measures at the DYEC

Emission Source	Potential Source of Odour	Control Measures / Preventative Procedure
Trucks	<ul style="list-style-type: none"> • the queue time of trucks onsite • Waste falling off trucks 	<ul style="list-style-type: none"> • Minimize the queue time through effective delivery protocols • If necessary, communication with Transfer Stations to divert trucks to designated locations. • Regional and facility staff monitor trucks visually and record drivers that do not follow protocol. Drivers are assessed penalties for coming on to the site with uncovered vehicles. • Fallen waste is recovered and moved to the Tipping Hall.
Waste Storage	<ul style="list-style-type: none"> • Outside storage • Unacceptable waste 	<ul style="list-style-type: none"> • Waste is not stored outside anywhere on the facility • Unacceptable waste is stored in a dedicated location on the Tipping Hall. Compressed gas cylinders are stored outside the Tipping Hall in a dedicated cage.

Emission Source	Potential Source of Odour	Control Measures / Preventative Procedure
Tipping Hall / Refuse Building	<ul style="list-style-type: none"> Fugitive odours 	<ul style="list-style-type: none"> Tipping Hall entrance and exit doors are closed when waste is not being delivered. Combustion Air Fans continuously draw air from the Tipping Hall where the thermal treatment process destroys any odour. An alarm alerts the control room when combustion air flow into the thermal treatment units drops below a minimum level requiring Tipping Hall air inlet investigation and possible adjustment. Calibration of Boiler Combustion Air Flow Transmitter for Louver Positioning
Both thermal treatment trains have an unexpected outage lasting a prolonged period	<ul style="list-style-type: none"> Both the facility thermal treatment units are off-line for an extended period 	<ul style="list-style-type: none"> Facility staff communicate with Regional Transfer Stations to divert trucks from the facility Trucks on-site will be diverted to appropriate locations Entrance and exit doors to the Tipping Hall and louvers will be closed to prevent fugitive odour escape. Induced Draft (ID) Fans will continue to operate as feasible and convey air from the Tipping Hall to the stack. In the unusual case scenario of both units being offline for an extended period, waste in the pit may be recovered and transferred in a covered haul truck to appropriate disposal areas. Active odour suppression using the facility's micronutrient misting system (See 5.1 for a description)

3. Inspection and Maintenance

Planned maintenance and inspection activities are an important part of maintaining the effectiveness of odour control measures. The DYEC operations and maintenance staff ensure all plant processes and equipment perform properly. A maintenance schedule of all facility equipment is included as part of the facility's Operations and Maintenance Manual. A Computerized Maintenance Management System (CMM) is utilized to schedule, track, and document inspection and repair activities and to ensure the

availability of critical spare parts. The CMM process postures the DYEC to maintain an effective planned inspection and preventative maintenance program on equipment critical to odour control and abatement.

3.1 Maintaining Combustion Air Flow

While the thermal treatment units are in operation, combustion air flow is maintained through the Tipping Hall and pit area. A system of louvers is adjusted according to prevailing operating conditions, such as the number of units in operation and whether or not MSW is being delivered. Louver positions for various unit operating scenarios were developed during the 2014 containment (smoke) test. To ensure this works effectively, regular maintenance and inspection activities are performed to ensure that doors and roof vents are closed and that the building envelope remains in good condition. The doors and louvers are inspected for proper operation daily. These activities ensure that louver adjustments effectively contain odours within the Tipping Hall and pit.

3.2 Inspection Frequency and Checklists

The DYEC has developed a comprehensive program that includes inspections of all aspects of the facility operations including buildings and the indoor waste storage facilities for the presence of odour and leaks in or near any openings, such as doorways, windows, vents or louvers and any off-site nuisance impacts from odour.

The Equipment Operator (or designate) performs daily rounds of the Tipping Hall area. Items of concern include confirmation that the louvers are in the correct position, integrity of the entrance/exit doors, presence of dust, odours and leaks exiting/entering the Tipping Hall and for the presence of trash outside of the building. They are also responsible for ensuring the micronutrient misting system is operable when required.

The Environmental Specialist performs an inspection of the entire facility on a weekly basis and records findings on the Covanta Process Map application under ENV Weekly Walkdown. In addition to odour, litter and track out of MSW are also recorded.

The Outside Environmental Checklist was designed to comply with *ECA 7306-8FDKNX Condition 5: Equipment and Site Inspections and Maintenance, (5) Inspections*. It includes buildings including indoor waste storage facilities and the presence of dust/odour/leaks in or near any openings, such as doorways, windows, vents, louvers or any other opening and off-site nuisance impacts such as odour, dust and litter.

The wastewater settling basin (WWSB) is inspected daily for odour, dust and litter. The results of these inspections, including any actions taken, are recorded on the Outside Environmental Checklist. On a weekly basis, the facility's Environmental Specialist performs an independent check. If necessary, the WWSB can be emptied and cleaned. The WWSB has not been a source of any odours during this, or any other, reporting period. During the reporting year, the WWSB was cleaned out and inspected on June 22nd 2021 per SOP *DYEC-BLR-051 Settling Basin Cleaning and Maintenance*.

The Waste Screening Report is also completed by the Equipment Operator (or designate). Every truck is examined for extreme odour.

Table 3 provides a summary of these facility inspections. See Appendix 1 for copies of the inspection forms.

Table 3: Summary of Inspections, Frequency and Forms

Inspection Type	Frequency	Form
Tip Floor Entrance and Exit Doors	Daily	Equipment Operator Daily Rounds
	Weekly	ENV Weekly Walkdown (Process Map app)
Louver Positions	Daily	Equipment Operator Daily Rounds
	Weekly	ENV Weekly Walkdown (Process Map app)
Combustion Air Flow to the Thermal Treatment Units	Continuously recorded on the facility's Distributed Control System (DCS)	Distributed Control System data historian
Environmental Inspection (as per ECA 5 (5))	Daily	Outside Environmental Checklist
	Weekly	ENV Weekly Walkdown (Process Map app)
Haul Truck Odour Inspection	Daily – every truck	Waste Screening Report
Odour Walk	As needed i.e. outages and/or odour concerns	Odour Log
Waste Water Settling Basin	Daily	Outside Environmental Checklist
	Weekly	ENV Weekly Walkdown (Process Map app)

In addition, the facility has routine equipment maintenance inspections as part of the facility Operating and Maintenance Manual.

The following activities are performed throughout the day, or on a scheduled basis, to control potential sources of fugitive odour emissions:

- The Tipping Floor is cleaned, as required, between MSW truck deliveries and at the end of the day
- No waste handling equipment or empty storage containers are stored outside, unless they have been washed
- Equipment and storage areas that are used to handle, process, and store waste (including the surfaces of the outdoor spill containment areas) are cleaned as required

3.3 OMMP Plan Review and Continuous Improvement

Inspection and monitoring procedures assist facility personnel in maintaining an effective OMMP. The OMMP will be reviewed and updated, as follows:

- if there are significant changes in the odour emissions sources or in facility operations;
- periodically, every five years (minimum); and/or
- if there are verified complaints associated with odour emissions from the facility.

A review of the OMMP is intended to evaluate the effectiveness of the odour control practices and focus on the identification of improvement opportunities that can reduce the possibility of the release of fugitive odour emissions. Significant changes in the odour emission sources from facility operations have not occurred.

3.4 Training

All new DYEC employees receive standard Environmental Training. This includes a presentation on the Odour Management and Mitigation Plan. Facility staff are trained to identify odour concerns. This training includes:

- management control techniques in place for addressing odour, including review of how to conduct and report an odour observation check;
- actions to take in the event of an unexpected odour release; and
- notification protocols.

Annual review of the OMMP is tracked through the online training platform, GPiLearn. Additional refresher training is provided on an as-needed basis. Training records are archived at the Facility.

4. Monitoring, Recording and Reporting

During normal operating hours, all staff are responsible to report any abnormal odour emissions at the site. If an abnormal odour is detected, facility staff will implement reactive measures to determine the root cause of the odour. A Standard Operating Procedure (SOP) for *Public Complaints and Enquiries* has been developed and amended to record complaints and ensure adequate information is collected to determine the cause and identify/implement mitigative actions. The SOP covers the following:

- receipt of complaints including information to be recorded and information to be released;
- processing of complaints including tracking number, meteorological conditions, maintenance and process conditions;
- form completion, follow through, and notification to the MECP;
- receipt of information requests and information to be released; and
- record management

The DYEC monitors combustion air flow rates, adjusts Tipping Hall louvers as necessary, and maintains equipment to meet the odour control requirements of the ECA. The following monitoring is carried out to evaluate the performance of control and reaction measures in use at the DYEC.

- a) Continuous monitoring of combustion airflow by each unit.
- b) Monthly review of meteorological data provided by the Region of Durham.

- c) Monitoring of complaints and other forms of community feedback.

On a monthly basis all complaints received directly at the DYEC are recorded and delivered to the Region of Durham for inclusion in the monthly complaint logs sent to the MECP.

4.1 Monitoring of Combustion Airflow

The continuous monitoring of the combustion airflow rate through the Tipping Hall is a surrogate for determining if negative pressure is being maintained within the building. Temperatures, pressures, and flow rates are monitored continuously throughout the combustion air and flue gas path. Measuring of combustion airflows (Combustion Air Flow Transmitters (1/2-FIT-4202)) in each of the two thermal treatment units ensure proper airflow (negative pressure) through the Tipping Hall. Periodic inspection and annual verification of the combustion air flow transmitters is conducted in accordance with the Containment Test Protocol.

The facility induces airflow through the Tipping Hall and across the refuse pit by combustion air fans that pull the combustion air through the intake ducts located on the south wall above the charging deck. The DCS continuously monitors, measures, and records this flowrate. As operating conditions change (i.e. shutdowns, non-delivery times), the outside admission airflow for the Tipping Hall is adjusted with the use of louvers on the north wall to maintain sufficient airflow at the operating conditions, and to prevent the odours from leaving the building. An alarm indicator in the DCS will alert the Control Room Operator of low combustion air flows requiring possible louver repositioning.

In the event that adequate airflow cannot be maintained, additional odour containment and control measures will be implemented.

4.2 Monitoring of On-site Meteorological Data

The monitoring of real-time meteorological data is an effective tool in the management of potential odorous emissions from the facility. Certain meteorological conditions, such as cold conditions combined with low wind speeds, can result in poor dispersion of fugitive waste odours should odours be released. This can potentially lead to an increased risk of odour annoyance at sensitive receptors. The DYEC has access to two meteorological stations located to the south west (upwind) at the Courtice Water Pollution Control Plant and to the north east (downwind) at the SE corner of Rundle Road and Baseline Road. These two stations continuously measure SO₂, NO_x and PM_{2.5} as well as wind speed/direction, temperature, and relative humidity. If a confirmed odour complaint is received at the facility, the resulting investigation includes the meteorological data (wind speed/direction and temperature) from the Courtice Water Pollution Control Plant station. If required, the data collected at the Rundle Road station is also available.

4.3 Complaints Monitoring

Condition 6 of the Environmental Assessment (EA) and Condition 10 of the ECA both require that the DYEC monitors and responds to odour complaints and inquiries. These complaints may come through the Regions of Durham and York (telephone or email), through the MECP or directly to the facility. DYEC protocols are in place to record and respond to these

complaints twenty-four (24) hours per day, seven (7) days per week. Written and digital records of complaint follow-up investigations and responses are maintained on site. See Section 6, Odour Complaint and Response Procedure, for additional details.

4.4 Source Odour Sampling

The Tipping Hall has been identified as the principal source of potential fugitive odours. On October 8th and 9th, 2015, Zorix Environmental carried out representative one-time odour sampling as per Ontario Source Testing Code Method ON-6. Triplicate samples were collected from the Tipping Hall feed chute area. These air samples were then analyzed by an 8-member odour panel to determine the typical odour source concentration. Dispersion of worst case potential odours through the stack during a 2-unit outage was modeled using the CALPUFF dispersion model approved under Schedule B of the ECA. According to the model, the maximum 10-minute odour concentration at a sensitive receptor was 0.28 Odour Units (OU) and occurred at a former house to the west of the facility. This result was well within the compliance limit of 1.0 OU.

5. Shutdown or Disruption of Operations

5.1 Scheduled Shutdowns

Scheduled shutdowns are used to complete unit inspection and repairs and are a key component of the facility’s maintenance program.

During a single unit outage, the remaining unit continues to run and provides for Tipping Hall and pit area ventilation and odour control. In addition to this, *SOP DYEC-ENV-010 Fugitive Dust and Odour Control*, for monitoring and mitigation of odours is employed. This may include the completion of perimeter odour surveys and the use of active odour suppression within the Tipping Hall.

When in a full plant outage (both units offline), Tipping Hall and pit area ventilation is reduced. During this period of time, perimeter odour surveys are completed, louver positions are monitored, and the active odour suppression system may be employed. Table 4 summarizes the planned facility outages during the reporting time frame.

Table 4: Planned Facility Outages

Unit 1	Unit 2
February 28 – March 13, 2021	March 2 – March 15, 2021
September 26 – October 7, 2021	September 25 – October 6, 2021

The facility’s active odour suppression system consists of an Aqua Fog® Odour Control unit. This misting unit uses a diluted solution of a plant based organic micronutrient (SciCorp BIOLOGIC® SRC3) which neutralizes odour by stimulating both aerobic and anaerobic non-odour producing bacteria while competitively inhibiting sulphur-reducing and ammonia forming bacteria and enzymes. This mobile misting fan can be placed in varying positions either misting over the MSW in the pit or misting toward the entrance door. The unit, in combination with control (opening and closing) of the louvers

on the north wall of the Tipping Hall works effectively to prevent fugitive odour. Aqua Fog® usage dates are documented in Table 5.

Table 5: Aqua Fog Usage Dates

Dates	Reason
March 11 - March 14, 2021	March boiler scheduled outages - Precautionary use during extended waste storage
September 28 – October 5, 2021	September boiler scheduled outages - Precautionary use during extended waste storage

5.2 Disruption / Unscheduled Shutdowns

A disruption of normal facility operations leading to an unplanned outage is handled in the same way as a planned outage. Louver positions are adjusted to maintain Tipping Hall ventilation. In the event that both units are affected and adequate negative airflow cannot be maintained, additional odour containment and control measures will be implemented, including the operation of the active odour suppression system.

5.3 Extended Waste Storage

In the event the facility experiences an abnormal / upset condition that causes the Facility to enter an extended emergency waste storage condition, the facility will formally notify the MECP per *Condition 2 (8)(b)(i) of the ECA*, as amended on March 14, 2016. This notification will include an explanation of the issue, duration of the outage, and control measures the facility is implementing in response to potential odours. These mitigating actions may include reducing waste deliveries, implementing more frequent odour surveys, and/or the operation of the active odour suppression system. MECP notifications of extended waste storage are archived at the site. There have been no verified odour complaints due to planned or unplanned shutdowns. Extended waste storage dates are documented in Table 6.

Table 6: Extended Waste Storage

Dates	Reason
March 5 - March 21, 2021	Spring major maintenance outages
September 27 – October 7, 2021	Fall minor maintenance outages

6. Odour Complaint Response Procedure

Monitoring of Complaints and Inquiries at the DYEC is a requirement of *Condition 6 of the EA* and *Condition 10 of the ECA*.

DYEC has a comprehensive system of monitoring and inspection to ensure all control measures are in place to mitigate potential adverse odours. However, in the event that an odour complaint is received, the complaints are properly and systematically addressed and resolved.

Complaints are directed to the DYEC through the Regions of Durham or York or received directly at the facility. The SOP *DYEC-PEO-003 Public Complaints and Enquiries* is based upon the *Durham/York Energy from Waste Complaint Protocol for Design, Construction & Operations* and is followed when an odour complaint is received. *Appendix 2: DYEC Record of Complaint* details the information collected during an investigation.

There were zero complaints/enquiries relating to odour received at the facility between November 1, 2020 and October 31, 2021. A summary of the complaints and investigations can be found in Appendix 3.

A Complaint and Inquiry report submission is provided to the MECP York Durham District Office District Manager monthly in accordance with the Complaint Protocol approved by the MECP in 2011. Hard copies and digital records of complaints and the complaint investigation and responses are maintained on site. All Complaint and Inquiry logs are available to the public on the DYEC website: <https://www.durhamyorkwaste.ca/en/operations-documents/complaint-inquiry-protocol-and-logs.aspx?mid=1057>

NOTE:

Under the Odour Management and Mitigation Plan, the Regions committed to notifying the Municipality of Clarington of any odour complaints received. The Municipality advised the Regions on June 16, 2015 that further notifications regarding odour complaints were not required.

Appendix 1 – Inspection Forms

Equipment Operator Daily Rounds

ENV Weekly Walkdown

Outside Environmental Checklist

Waste Screening Report – Tipping Floor

Odour Log

EQUIPMENT OPERATOR DAILY ROUNDS

Completed By: _____

Date: _____

At 7am, confirm louver position (see over)

Yes	No	Item
		Inspect the Loader using the approved inspection form
		Portable Fire Extinguishers: present and properly charged and fire hose in good condition
		Floor area is clear of materials from previous shift
		Review building integrity including columns, beams, walls etc.
		Inspect, open and close entry/exit doors
		Confirm all lights are functioning. If lights are out, record in comments below.
		Dust/odours/water leaks exiting/entering the Tipping Floor. If found, record below.
		Unacceptable Wastes are stored in proper containment locations and are not stored incompatibly.
		Confirm Spill Kit is full
		Recycling placed in green recycling bin
		Trash present outside east or west Tip Floor doors. If yes, pick up.
		Winterization – Confirm heat tracing is on for fire system drip leg
		Is the misting system for odour control in operation?
		If misting, verify nutrient is present and reservoir does not need refilling during entire shift
		Charging Deck floor swept/cleaned. Record time -
		Yellow parapet cleaned – free of dust Record time -
		Stairwells swept/cleaned Record time -
		Firing Aisle (in front of Martin – El 8.7) cleaned Record time -
		Barn Door Areas (behind Martin – El 6) cleaned Record time -
		Drain all fire system drip legs (5) Record time -
		Halo Lights working/charging Record time -
		Water Cannons cleaned Record time -
		Water Cannon infra-red cameras cleaned with air Record time -
		Coveralls bagged up Record time -

At 7pm, confirm louver position (see over)

Additional Tasks Completed and any Comments or Issues from above

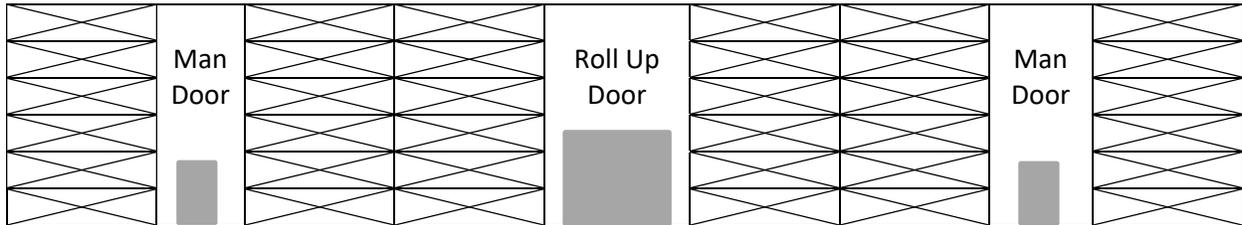
Shift Supervisor Signature: _____

EQUIPMENT OPERATOR DAILY ROUNDS

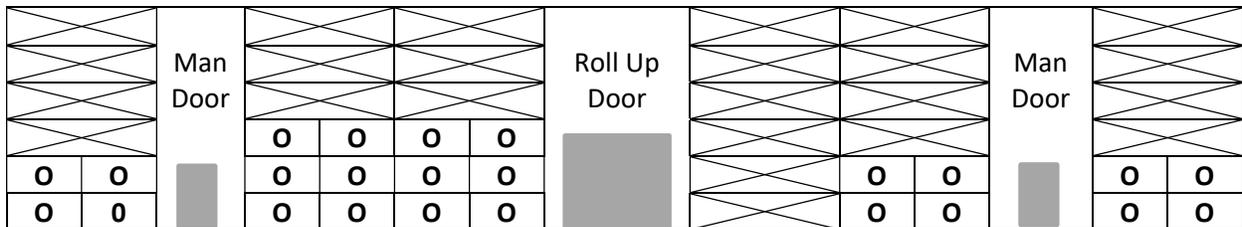
Please place 7am or 7pm on the line matching the specified conditions

_____ MSW incoming, (Boilers on or off)

_____ No MSW incoming, Both boilers off, CA fans off

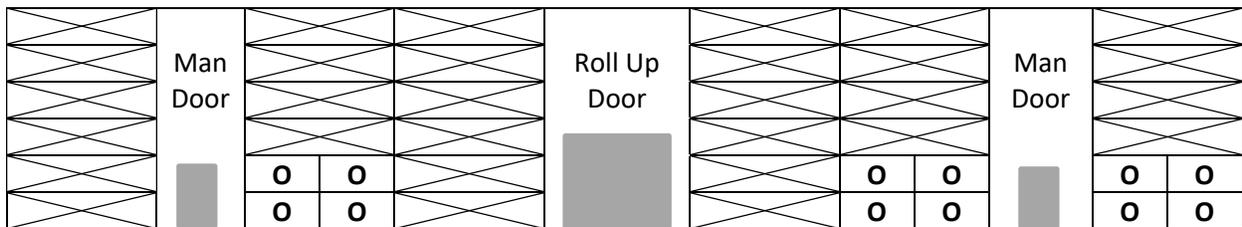


_____ No MSW incoming, Both boilers operating



_____ No MSW incoming, Both boilers off, CA fan operating

_____ No MSW incoming, 1 boiler operating



 **Closed**

 **Open**



ENV WEEKLY WALKDOWN EFW

General Information

Location	Durham York
Inspector	
Date	
Time <input type="checkbox"/>	
Weather Conditions	
Inspection Notes	
Process Unit Areas Select all the areas being inspected this week	General Conditions, Boiler/Turbine Building Areas, Air Pollution Control Equipment Area, Grizzly Area, CEMS Trailer, Charging Deck, Fire Pump House, Storm Water Discharge, Scale House, Tipping Floor, Ash Storage and Handling/Metal Recovery Areas, Internally Generated Waste Management (Universal, Hazardous, Waste Oil, Electronic), Maintenance Shop, Emergency Power Back-up Area, Water Treatment Area

General Conditions

Odors are controlled/measures are in place	
Fugitive emissions/dust are controlled	
Roadways are adequately swept daily, and site litter controlled	
No evidence of excessive soil erosion	
Grass and landscaping are neatly trimmed/properly maintained	
Facility is maintained in a clean and sanitary condition (paved areas free of oil/grease/MSW/Ash)	
Areas adjacent to buildings are free of litter and standing water	
Perimeter fencing is properly maintained	
All doors are closed when not in use (including at night)	
Other security measures are in good working condition (gates, cameras, lighting, etc.)	
Materials stored outdoors show no signs of leakage or ash/other debris	
All mobile equipment is free of oil dripping	
Sedimentation basin is draining properly (working pumps)	
Oil water separator is in working order (working pumps)	
General: Comments	
General: Attachments	
General: Action Items	

Air Pollution Control Equipment Area

Floor drains/grates are functioning properly (no standing water, clean grates)	
Surfaces are clear of spilled material and/or oil	



ENV WEEKLY WALKDOWN EFW

Carbon/lime/pozzolan/cement silo areas are free of excessive dust	
Areas beneath baghouse systems are clean/free of ash, debris, and/or oil	
Urea/ammonia tank/diking do not contain water/sensors are working properly and no leaks are visible	
Petroleum tanks do not contain water/sensors are working properly and no leaks are visible	
Chemical bulk storage does not contain water and no leaks are visible (acids, caustic)	
Carbon/lime/urea/ammonia injection systems are working properly (no leaks/fugitive emissions detected)	
Tanks and drums provided with secondary containment and/or spill pallets	
SPCC monthly inspection completed this week (if applicable)	
APC: Comments	
APC: Attachments	
APC: Action Items	

Ash Storage and Handling/Metal Recovery Areas

Ash is properly contained within the building	
Floor is clear of spilled material and/or oil; no oil leaks visible in the area (conveyor, front end loader, oil reservoirs)	
No ash is tracked out of building or 'leaking' transport vehicles	
No ash spillage beneath conveyors outside secondary containment, where provided	
No ferrous/non-ferrous material tracked-out	
Spill stations/kits are adequately stocked - if not reorder	
Ash building doors are closed when not actively in use	
No fugitive ash emissions discharged from ash building	
Ash trucks are properly covered before leaving facility perimeter (if witnessed during inspection)	



ENV WEEKLY WALKDOWN EFW

Ash containment controls are in place and free from ash stains to prevent stormwater contamination (hay bales, sediment traps, storm drain baskets)	
Ash samples are being collected and processed per facility's ash sampling protocol	
Ferrous/nonferrous containers are not leaking or overloaded	
No evidence of ferrous/nonferrous containers overflowing	
Ash/Metal: Comments	
Ash/Metal: Attachments	
Ash/Metal: Action Items	

Boiler/Turbine Building Areas

Containers are labeled and stored in properly (in flammables storage where applicable)	
Tanks and drums are provided with secondary containment and/or spill pallets	
Secondary containment is clear of liquids (including water/spilled material)	
Floor drains are clean, free of standing water/functioning properly	
Floor is clear of debris and/or spilled material	
Spill stations/kits are adequately stocked - if not reorder	
No evidence of leaks/spills or malfunctioning equipment (in the vicinity of the storage areas if applicable)	
All fuels and used oil containers are properly labeled, closed and stored	
All chemicals are properly labeled, closed and stored in appropriate containment	
No fugitive emissions from boiler	
Boiler/Turbine: Comments	
Boiler/Turbine: Attachments	
Boiler/Turbine: Action Items	

CEMS Trailer

Maintained in a clean and sanitary condition	
Maintained at proper temperature	
Walls and roof are intact/functioning properly	



ENV WEEKLY WALKDOWN EFW

No signs of water leakage in or outside trailer	
Repair logbook is in place (paper or electronic)	
CEMS: Comments	
CEMS: Attachments	
CEMS: Action Items	

Charging Deck

Crane maintenance areas housekeeping properly maintained	
Forced draft filter houses in proper operation	
Walkways, floor and fire protection equipment is clear of excessive spilled material/ash/or oil	
Charging Deck: Comments	
Charging Deck: Attachments	
Charging Deck: Action Items	

Emergency Power Back-up Area

Emergency diesel storage tank(s) is equipped with secondary containment that is clean	
Level gauges, alarms on diesel storage tanks are functioning properly	
No leaks or malfunctioning equipment evident	
Spill stations/kits are adequately stocked - if not reorder	
Water tank containment intact	
Check and record non-resettable hour meter hours	
Power back-up: Non-resettable hours	
Power back-up: Comments	
Power back-up: Attachments	
Power back-up: Action Items	

Fire Pump House

Emergency diesel storage tank(s) is equipped with secondary containment and is clean	
Level gauges and alarms on diesel storage tanks are functioning properly. Test alarm, if possible	
No leaks or malfunctioning equipment is evident	
Spill stations/kits are adequately stocked - if not reorder	
Water tank containment is intact	



ENV WEEKLY WALKDOWN EFW

Check and record non-resettable hour meter hours	
Fire Pump: Non-resettable hours	
Fire Pump: Comments	
Fire Pump: Attachment	
Fire Pump: Action Items	

Grizzly Area

No evidence of ash tracking or spillage in the area	
Floor is clear of spilled material and/or oil	
Spill stations/kits are adequately stocked - if not reorder	
Grizzly: Comments	
Grizzly: Attachments	
Grizzly: Action Items	

Internally Generated Waste Management (Universal, Hazardous, Waste Oil, Electronic)

Oily wastes are labeled and stored properly in secondary containment	
Used oil tank(s) is labeled and intact/not leaking (check level)	
Universal waste containers are in good condition, labeled properly and include accumulation start dates within 1 year (>1 year must be disposed of)	
Spill stations/kits are adequately stocked - if not reorder	
Electronic wastes (E-waste) is placed in designated spot, if applicable	
Hazardous waste is labeled and stored properly in secondary containment (lids are closed)	
IGW: Comments	
IGW: Attachments	
IGW: Action Items	

Maintenance Shop

Floor drains are clean and free of standing water	
Floor is clear of spilled material and/or oil	
No staining is evident on paved areas outside the shop	
Maintenance activities are conducted in a manner minimizing spill potential	
Paint shop area is properly maintained/good housekeeping	



ENV WEEKLY WALKDOWN EFW

Tanks and drums are provided with secondary containment and/or spill pallets	
Spill stations/kits are adequately stocked - if not reorder	
Parts washer lid closed when not in use	
Flammable chemicals are being stored properly inside of Flammable Cabinets	
Used oil rags are properly stored in designated containers (if applicable)	
All chemicals are properly labeled, closed and stored in appropriate containment	
All fuels and used oil containers are properly labeled, closed and stored	
No evidence of leaks/spills in the vicinity of the storage areas	
Maintenance: Comments	
Maintenance: Attachments	
Maintenance: Action Items	

Scale House

Spill stations/kits are adequately stocked - if not reorder	
Scales and roadways are free from MSW/dust/litter/debris	
Radiation monitors are functioning properly and certified/calibrated (if applicable)	
Daily background readings for radiation monitors are recorded (if applicable)	
Weekly alarm and setpoint checks for radiation monitors are completed (if applicable)	
Scale House: Comments	
Scale House: Attachments	
Scale House: Action Items	

Storm Water Discharge

No evidence of visible sheen, litter, lime or ash in settling/sedimentation basin Stormwater detention ponds, at outfalls or in catch/settling/detention basins	
No evidence of visible sheen, litter, lime or ash in stormwater detention pond	
No evidence of visible sheen, litter, lime or ash at outfalls	
No evidence of visible sheen, litter, lime or ash in stormwater drain socks/sorbent booms	
Litter is controlled	



ENV WEEKLY WALKDOWN EFW

No evidence of unpermitted discharges to storm water drains, outfalls, and/or to the ground	
Spill stations/kits are adequately stocked - if not reorder	
Pond/outfall is accessible for inspection and water sampling (no excessive vegetative growth in and around the area)	
Oil/water separator appears to be functioning properly (if oil seen in settling basin check to ensure oil/water separator is functioning properly)	
SW Discharge: Comments	
SW Discharge: Attachments	
SW Discharge: Action Items	

Tipping Floor

Vectors are controlled Vectors are controlled (Traps, Bait Stations, etc. in place)	
Waste volume in pit and tipping floor is not excessive	
Unacceptable wastes are segregated, labelled and stored safely, for further handling	
Hazardous waste is not accepted	
No sign of MSW track-out from tipping floor building	
Tipping floor doors are closed when not actively in use (closed at night)	
Spill stations/kits are adequately stocked - if not reorder	
Waste inspections are being performed and documented daily	
Floors are clear of chemical/oil spills/debris	
Louvers/vents are functioning and in correct position	
Weekly clean floor hour being met/logged	
Radiological monitoring system functioning properly	
Access to firehoses and firehouse not blocked	
Tipping Floor: Comments	
Tipping Floor: Attachments	
Tipping Floor: Actions Items	



ENV WEEKLY WALKDOWN EFW

Water Treatment Area

Floor is clear of spilled material and/or oil	
Spill stations/kits are adequately stocked - if not reorder	
No evidence of excessive leaks or malfunctioning equipment (in the vicinity of the storage areas)	
Storage tanks are properly labeled/maintained (secondary containment and/or spill pallets provided where applicable)	
Containment systems are clean/properly maintained	
Process water equalization basin pumps, and valves functioning properly (check for overflow)	
Package wastewater treatment plant odors are controlled	
Floor drains are properly functioning (no standing water is visible)	
Chlorine injection system properly functioning (no leaks)	
All fuels and used oil containers are properly labeled, closed and stored	
All chemicals are properly labeled, closed and stored in appropriate containment	
Scalper sump/tank in proper working order (ensure no overflow and no accumulation of excessive solids)	
Water Treatment: Comments	
Water Treatment: Attachments	
Water Treatment: Action Items	

Additional Information

Additional Comments	
Additional Attachments	
Additional Action Items	
Signature Required?	No

Outside Environmental Checklist

Date:		Operator Name:			
1. Outside Surrounding Area	East	South	West	North	Comments
Fencing / Gates / Barriers intact	Y / N	Y / N	Y / N	Y / N	
Security Signage in place	Y / N	Y / N	Y / N	Y / N	
Roads/ Scale house - Leaks/drips of waste from trucks, trash or excessive dust present	Y / N	Y / N	Y / N	Y / N	
Storm Water Pooling present	Y / N	Y / N	Y / N	Y / N	
Odour/ Dust/ Litter Present	Y / N	Y / N	Y / N	Y / N	
Trash/debris present on scales	Y / N				
Make note of any odours coming from the Water Pollution Control Plant or Miller Waste	Y / N	Please record TIME odour was noted:			
2. Ponds and Swales	East	West	Comments		
Odour / Dust / Litter present	Y / N	Y / N			
3. Residue Building		Comments			
Track out of ash or metals	Y / N				
Dust/odours exiting building	Y / N				
4. Diesel Tank - Rolling Stock		Comments			
Containment compromised – leaks visible	Y / N	Fuel Level -			
5. Waste Water Settling Basin		Comments			
Odour / Dust / Litter present	Y / N				
Storm Water Pooling present north of WWSB	Y / N	If yes, inform Shift Supervisor			
Basin/Pumps compromised –leaks visible	Y / N				
Water pumped from WWSB or returned to WWSB from Ammonia Containment	Y / N	If Yes, state which direction (to or from WWSB), when and how much			
6. Stack		Comments			
Stack lighting is functional	Y / N	Please circle light that is not functioning: NE SE SW NW			
7. Emergency Diesel Generator		Comments			
Dust/odours exiting any equipment openings	Y / N				
Coolant/Battery/Fuel leaks	Y / N	Fuel Level -			
8. Grizzly Building		Comments			
Track out of ash or metals	Y / N				
Dust/odours exiting building	Y / N				
9. Fly Ash and Inclined Conveyors		Comments			
Odour / Dust / Litter present	Y / N				
Ash leaks visible	Y / N				

Outside Environmental Checklist

10. ACC/ CCW		Comments
Leaks visible – around ACC	Y / N	
Leaks visible – around CCW	Y / N	
ACC Transformer containment free of oil/debris/water	Y / N	If oil is present in containment, do not pump water. Inform Shift Supervisor.
Water Level in north containment (Pump if 2 inches or greater.)	(Inches)	Water Pumped Y / N
Water Level in south containment (Pump if 2 inches or greater.)	(Inches)	Water Pumped Y / N
11. Ammonia		Comments
Containment compromised (cracks/peeling present)	Y / N	
Tank/valves/pipes compromised– leaks visible	Y / N	
Water Level in Dyke (Pump at 2 inches = bottom black line)	(Inches)	Water Pumped Y / N
12. Pozzolan/ Cement/ Carbon Silos		Comments
Silos condition compromised – leaks visible	Y / N	
Pozzolan or Cement build up inside silo?	Y / N	
Offloading areas in clean condition	Y / N	
13. Lime Silo Panel		Comments
Verify lime silo panel power is on and there is no alarm.	Y / N	Notify Shift Supervisor if there is no power or an alarm is present.
Make note of any off-site nuisance impacts such as odour, dust, litter etc.		

Comments:

Shift Supervisor Signature:

NOTE: This checklist satisfies ECA 7306-8FDKNX Condition 5 (5) Inspections

Once per hour, Trained Personnel shall unload the incoming Waste on the tipping floor for a manual visual inspection and sorting of the incoming Waste.
(ECA - Condition 4 (2)(b)(ii))

	Time	Waste Hauler		ID #	Extreme Odour?		Any Unacceptable Waste?		Trucks dumped directly into Pit			Inspector Initials
		Durham	York (UPAK)		Yes	No	Yes	No	ID #			
									Please place a D (Durham) or Y (York)			
7am												
8am												
9am												
10am												
11am												
12pm												
1pm												
2pm												
3pm												
4pm												
5pm												
6pm												

To report Unacceptable Waste please use the other side of this form.

ODOUR LOG

Date	Target Time	Time Completed	Wind Direction	Odours Detected (Y/N)	If yes, identify odours (MSW, sewage, compost etc.) Direction and distance from facility odour extends. Record any additional comments below.	AquaFog Unit running (Y/N)	Micro-nutrient Added (Y/N)	Initial
	4:00 AM							
	10:00 AM							
	4:00 PM							
	10:00 PM							
	4:00 AM							
	10:00 AM							
	4:00 PM							
	10:00 PM							
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	10:00 AM							
	4:00 PM							
	10:00 PM							
	4:00 AM							
	10:00 AM							
	4:00 PM							
	10:00 PM							
Additional Comments								

Appendix 2 – DYEC Record of Complaint

DYEC Record of Complaint

Tracking Number: _____ (admin use only)

[SECTION A: This area to be completed by First Responder]

Date of Complaint: _____ Time: _____

Complaint Received by (please print): _____

Method of Contact: Telephone Letter Email Fax
 Facility Visit Other _____

Name of Complainant: _____ (if provided)

Address: _____

Phone: _____

Email: _____

Complaint/Issue: (Be as detailed as possible including if an immediate response was requested.)

Company activities at the time of the complaint: (Include process conditions, maintenance etc.)

Description of response immediately following the complaint:

Referred for Further Action to: Facility Manager Chief Engineer
 Environmental Specialist Other _____

[SECTION B: This area to be completed by Management]

Weather at Time of Complaint (if required):

Temperature (°C): _____ Precipitation (rain/snow & volume): _____

Wind Speed (km/h): _____ Wind Direction: _____

Were any further actions taken/required after the initial response? Yes No

Date: _____ Time: _____

Description: _____

If no action was taken, specify why:

DYEC Record of Complaint

Tracking Number: _____ (admin use only)

Describe actions taken to address the cause of the complaint.

Follow Up: (Include date for completion)

Response Method (to Complainant): Telephone In Person Email

Is the Complainant satisfied with the response and follow-up? Yes No

If No, Please provide comments/reason:

Was the MECP contacted? Yes No

In No, Why?

Date of MECP contact: _____ Verbal Written Both

Name of MECP contact: _____

Complaint Processor:

Print

Signature

Facility Manager:

Print

Signature

Chief Engineer:

Print

Signature

Environmental Specialist:

Print

Signature

Date Closed:

Appendix 3 – Summary of Investigated Odour Complaint (November 1, 2020 to October 31, 2021)

Appendix 3: Summary of Investigated Odour Complaints (November 1, 2020 to October 31, 2021)

There were zero complaints/inquiries relating to odour received at the facility between November 1, 2020 and October 31, 2021.

Date Received	
Method	
Comment/ Complaint Summary	
DYEC Response/ Action Taken	
DYEC Activities/ Investigation	
Meteorological Data (wind speed and direction)	
MECP Correspondence	
Further Action	
Date Responded	