

2019 ODOUR MANAGEMENT & MITIGATION MONITORING REPORT



Submitted By:

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1. Executive Summary

The Durham York Energy Centre (DYEC), respectfully submits the 2019 Annual Odour Management and Mitigation Monitoring Report (OMMMR) covering operations encompassing November 1, 2018 to October 31, 2019.

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. The second, third and fourth submissions were on December 23rd, 2016, November 24th, 2017 and November 26th, 2018 respectively. This OMMMR represents the fifth 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 on a daily basis. 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. Doors remain closed at all times except to facilitate the entry, positioning and exiting of waste delivery trucks i.e. both entrance and exit doors must be closed before offloading of MSW or loading of Unacceptable Waste may commence. 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 on line. 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 destroyed via direct exposure to the flame and high temperature oxidation that occurs during the combustion process. A system of manually adjustable louvers 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 floor. 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 combustion air from the Tipping Hall where the thermal treatment process will destroy any odour. An alarm alerts the control room when combustion air flow into the thermal treatment units drops below low 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. 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 off line 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 that all plant processes and equipment perform properly, including those that have a direct effect on the success of the odour control program. A maintenance schedule of all facility equipment is included as part of the facility Operations and Maintenance Manual. An electronic Maintenance Management System is utilized to schedule, track and document inspection and repair activities and ensure the availability of critical spare parts. This

ensures the DYEC maintains an effective planned inspection and preventative maintenance program on equipment that is 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 also 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 on a daily basis. 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. He/She is 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 DYEC Weekly Environmental Site Inspection Form. In addition to odour, litter and track out of MSW are 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 and the indoor waste storage facilities and 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 waste water settling basin (WWSB) is inspected on a daily basis 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. It has not been the source of any odours during this or any other reporting period. During the reporting year, the WWSB was cleaned out and inspected on November 15th, 2018 and May 28th, 2019 per SOP 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	DYEC Weekly Environmental Site Inspection Form
Louver Positions	Daily	Equipment Operator Daily Rounds
	Weekly	DYEC Weekly Environmental Site Inspection Form
Combustion Air Flow to the Thermal Treatment Units	Continuously recorded on the facility's Distributed Control System	Distributed Control System data historian
Environmental Inspection (as per ECA 5 (5))	Daily	Outside Environmental Checklist
	Weekly	DYEC Weekly Environmental Site Inspection Form
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	DYEC Weekly Environmental Site Inspection Form

In addition, the facility has routine equipment maintenance inspections for the operation of the facility 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 needed 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.

The facility's Environmental Specialist conducts refresher training on an as necessary 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. SOP - 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 whether negative pressure is being maintained within the building. Temperatures, pressures and flow rates are monitored throughout the combustion air and flue gas path. Combustion airflows (Combustion Air Flow Transmitters (1/2-FIT-4202)) in each of the two thermal treatment units are monitored continuously to ensure proper airflow (negative pressure) through the Tipping Hall is maintained. 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 above the cranes on the charging deck. The DCS (Distributed Control System) continuously monitors, measures and records this flowrate. As operating conditions change (i.e. shutdowns, non-delivery times), the airflow is adjusted with the use of louvers on the north wall of the Tipping Hall to maintain sufficient airflow 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 staff 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 OU and occurred at a former house to the west of the facility. This result was well within the compliance limit of 1.0 Odour Units.

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, maintaining 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: 2019 Planned Facility Outages

Unit 1	Unit 2
March 17 – April 2	March 18 – April 3
September 20 – September 30	September 21– October 1

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 work effectively to prevent fugitive odour. Aqua Fog® usage dates are documented in Table 5.

Table 5: 2019 Aqua Fog Usage Dates

Dates	Reason
March 27 - March 29	March boiler scheduled outages - Precautionary use during extended waste storage
September 23 - September 30	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 to potential odours. These mitigating actions may include reducing waste deliveries, implementing more frequent odour surveys and 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.

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 check that all odour control measures are functioning effectively. However, in the event that an odour complaint is received, it is important that 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 - Public Complaints and Enquiries is based upon the *Durham/York Energy from Waste Complaint Protocol for Design, Construction & Operations* and is followed whenever an odour complaint is received. See *Appendix 2: DYEC Record of Complaint* for information collected during an investigation.

There were 6 (six) complaints/enquiries relating to odour received at the facility between November 1, 2018 and October 31, 2019. An investigation into each complaint was immediately initiated. All confirmed odour complaints must be reported to the MECP District Office by phone or email as soon as reasonably possible. Not one of the 6 (six) complaints/enquiries received were attributed to the DYEC.

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: www.durhamyorkwaste.ca

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

DYEC Weekly Environmental Site Inspection Form

Outside Environmental Checklist

Waste Screening Report – Tipping Floor

Odour Log



EQUIPMENT OPERATOR DAILY ROUNDS

Completed By: _____

Date: _____

At 7am, confirm only one of the following:

Boilers On	Incoming Waste	# of Louvers Open	Check <input checked="" type="checkbox"/>
1 or 2	Yes	All closed	
1	No	One bank	
2	No	Two banks	
0	Yes	All closed	
0	No	One bank	
0 (no ID fan)	No	All closed	

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.
		Is the misting system for odour control in operation?
		If misting, verify nutrient is present and reservoir does not need refilling during entire shift
		Winterization – Confirm heat tracing is on for fire system drip leg
		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 -

At 7pm, confirm only one of the following:

Boilers On	Incoming Waste	# of Louvers Open	Check <input checked="" type="checkbox"/>
1 or 2	Yes	All closed	
1	No	One bank	
2	No	Two banks	
0	Yes	All closed	
0	No	One bank	
0 (no ID fan)	No	All closed	

Additional Tasks Completed and any Comments or Issues from above

Shift Supervisor Signature: _____



DYEC WEEKLY ENVIRONMENTAL SITE INSPECTION FORM

Date: _____

Completed By: _____

Sat – Satisfactory NI – Needs Improvement UnSat - Unsatisfactory

GENERAL CONDITIONS				
	Sat	NI	UnSat	Comments
Odours are controlled	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Dust is controlled – Roadways are adequately swept	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Overall site litter is controlled	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
No evidence of excessive soil erosion	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Facility is maintained in a clean and sanitary condition	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Areas adjacent to buildings are free of standing water	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Grass/ landscaping is neatly trimmed and properly maintained	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Tanks		Comments		
	Leaks detected (dust or liquid)			
Carbon	Yes <input type="checkbox"/>	No <input type="checkbox"/>		
Lime	Yes <input type="checkbox"/>	No <input type="checkbox"/>		
Pozzolan	Yes <input type="checkbox"/>	No <input type="checkbox"/>		
Cement	Yes <input type="checkbox"/>	No <input type="checkbox"/>		
Diesel Tank	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Spill Kit -	
Ammonia	Yes <input type="checkbox"/>	No <input type="checkbox"/>		
BOILER/TURBINE BUILDING AREAS				
	Sat	NI	UnSat	Comments
Tanks and drums provided with 2" containment or spill pallets	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Floor drains/trenches are functioning properly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Floor is clear of spilled material and/or oil	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Spill kits are adequately stocked (turbine and firing aisle)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
No evidence of leaks/spills or malfunctioning equipment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
APC AREA				
	Sat	NI	UnSat	Comments
Surfaces are clear of spilled material and/or oil	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Floor drains/trenches are functioning properly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Baghouse systems are functioning properly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Ammonia tank/diking in proper working order	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Carbon/lime/ammonia injection systems in proper working order	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
CEMS PERFORMANCE				
	Sat	NI	UnSat	Comments
Daily Summary Reports reviewed and any issues addressed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
CEMS data quality issues being addressed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
CEMS maintenance and calibrations adequately performed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Condition of CEMS Trailer (cleanliness, temperature)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	



DYEC WEEKLY ENVIRONMENTAL SITE INSPECTION FORM

Sat – Satisfactory NI – Needs Improvement UnSat - Unsatisfactory

RO WATER TREATMENT AREA				
	Sat	NI	UnSat	Comments
Floor is clear of spilled material and/or oil	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Spill kit is adequately stocked	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
No evidence of excessive leaks or malfunctioning equipment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Storage tanks/containment basins properly maintained	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
STORM WATER PONDS and SETTLING BASIN				
	Sat	NI	UnSat	Comments
No evidence of visible sheen on ponds	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
No evidence of visible sheen on WWSB	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Spill kits at East and West ponds are adequately stocked	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
RESIDUE BUILDING AND HANDLING AREAS				
	Sat	NI	UnSat	Comments
Ash, ferrous and non-ferrous material is properly contained	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Spill kit is adequately stocked	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Floor is clear of spilled material and/or oil	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
No sign of ash track-out or leaking transport vehicles	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
No sign of ferrous/non-ferrous track out	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
No sign of ash spillage beneath outside conveyors	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Condition of Pozzolan/Cement silo base	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
GRIZZLY BUILDING & EMERGENCY DIESEL GENERATOR (EDG) AREA				
	Sat	NI	UnSat	Comments
Floor is clear of spilled material and/or oil	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
No sign of excessive ash spillage, NO ash track-out.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Spill kit is adequately stocked	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
No sign of leaks/spills around EDG	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
FIRE PUMP HOUSE				
	Sat	NI	UnSat	Comments
Spill kits are adequately stocked	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Diesel tanks: no leaks visible	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
No sign of malfunctioning equipment evident	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Water tank containment intact	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
MAINTENANCE SHOP				
	Sat	NI	UnSat	Comments
No drums or drums on spill pallets	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Floor is clear of spilled material and/or oil	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
No staining evident on paved areas outside of shop	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Maintenance activities conducted in a manner minimizing spill potential	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	



DYEC WEEKLY ENVIRONMENTAL SITE INSPECTION FORM

Sat – Satisfactory NI – Needs Improvement UnSat - Unsatisfactory

SCALES					
	Sat	NI	UnSat		Comments
Spill kit is adequately stocked	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Scales and roadway are free from MSW/dust/litter	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
INTERNALLY GENERATED WASTE – COMPRESSOR ALLEY					
	Sat	NI	UnSat		Comments
No evidence of leaks/spills in the vicinity of the used oil storage drums	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Tanks and drums provided with secondary containment and/or spill pallets	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Spill kit is adequately stocked	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
IGW is properly labelled	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
TIPPING FLOOR					
	Sat	NI	UnSat		Comments
Vectors are prevented or controlled	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Waste volume in pit and tipping floor not excessive	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Daily Waste Screening Reports completed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Spill kit is adequately stocked	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Chemical/oil spills/debris present on floor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Unacceptable waste stored safely	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
No track out of MSW	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Louvers are functioning and in correct position	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		

ADDITIONAL COMMENTS: _____

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



Waste Screening Report - Tipping Floor

Date: _____

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.

Waste Screening Report - Tipping Floor

Please record volume/quantity of materials removed from waste stream

Time of Inspection	Hazardous Wastes						Unacceptable Wastes								Bulky Unprocessable Wastes	Description of Materials	Storage Location		
	Pathological or Biological	MHSW*	Transformers / Ballasts	Chemical Wastes	Hot or Burning Load	Compressed Gas Cylinders	Sealed Drums - Liquid Wastes	Tires - > 10	Construction - Demolition	Recycling Materials	Motor Vehicle Parts	Electronic Waste	Leaf-Yard Waste - logs and stumps	Items > 6 feet	Floor/Bin		Bermed Area	Compressed Gas Cage Outside	
7am																			
8am																			
9am																			
10am																			
11am																			
12pm																			
1pm																			
2pm																			
3pm																			
4pm																			
5pm																			
6pm																			

* MHSW - Municipal Hazardous and Special Wastes: pesticides/herbicides, batteries, antifreeze, solvents, light bulbs etc.

Comments:

Shift Supervisor Signature: _____

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:

