

March, 2016 – Audit Durham York Energy Centre

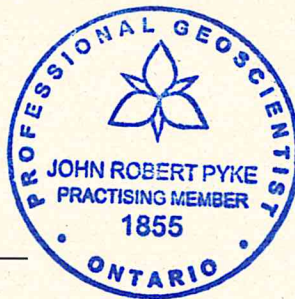
Construction Phase Audit
EA file no. 04-EA-02-08

Prepared by

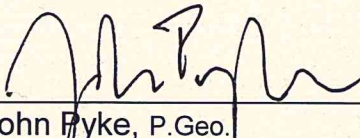


Prepared for
Regional Municipality of Durham

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Malroz File: 795-113.00
March 21, 2016


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Distribution:
1 copy + 1 pdf – Region of Durham
1 copy – Malroz Engineering Inc.

NOTICE TO READER

This report summarizes the results of an Audit of the Durham York Energy Center undertaken by *Malroz Engineering Inc.* on March 4, 2016.

Malroz was retained by *The Regional Municipality of Durham* to perform this audit. The data evaluations reported herein were completed in a manner which is consistent with the level of care and skill normally exercised by other members of the engineering and geoscience professions currently practising under similar conditions, subject to the time, financial, and physical constraints applicable to these services.

The findings reported in this document are based on the tasks completed by *Malroz*. Professional judgement, experience with similar work, and available data collected within the scope of work form the basis for this report. *Malroz* has prepared this report using information understood to be factual and correct. This undertaking cannot be relied upon to detect information or facts that were inaccurate, concealed, or not fully disclosed at the time of our work. No guarantees are either expressed or implied.

Environmental conditions can be expected to change over time. The findings and conclusions of this report are valid only at the time at which this work was conducted. If future work is undertaken, or new information becomes available, *Malroz* should be so advised in order to re-evaluate the conclusions of this report and make any necessary modifications.

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Data, tables, charts, graphs, and interpretive illustrations presented in this document can only be properly evaluated when reviewed together with the accompanying report. Reference to this report should only be made to the full, intact document.

This notice to reader is an integral part of the accompanying report and must remain with it at all times.

Respectfully Submitted,

Malroz Engineering Inc.

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1.0 Introduction and Overview

1.1 Introduction

The MOECC approved construction of a mass burn incinerator in Clarington in 2010 following the completion of the EA. The facility reportedly will be capable of processing approximately 140,000 tonnes of post-diversion residual waste annually, as well as recovering metals and energy. The facility is located at 1835 Energy Drive, in the Municipality of Clarington. The 12-hectare parcel is situated north of the Courtice Water Pollution Control Plant in the Regional Municipality of Durham (see Figure 1, Appendix A).

This audit and report represent Construction Phase Audit Number 5 of 5, Completion of Acceptance Testing. In a letter dated February 11, 2016 the Ministry of the Environment and Climate Change concurred with Audit #5 commencing on March 4, 2016.

1.2 Report Overview

Section 16 of the Notice of Approval to Proceed with the Undertaking dated October 21, 2010, from the Minister of the Environment, mandates that third party audits be completed. Further, the audit plan is to be approved by the Regional Director prior to implementation. Approval of the Construction Phase Audit Plan was received on December 8, 2011. The Completion of Acceptance Testing Audit Plan was submitted to the MOECC on August 7, 2014 by the Regions. The purpose of the audit program is to confirm:

1. Compliance with applicable legislation;
2. Compliance with applicable approvals and permits such as the Certificate of Approval and site plan permit; and;
3. Compliance with accepted monitoring plans.

Further, the purpose of the audit is to evaluate the areas of non-compliance or improvement identified in our April, 2014 report to be addressed prior to the submission of the present audit.

This audit report covers the fifth audit site visit which was conducted on March 4, 2016. The audit summary checklist was updated based on the previous audit. The summary checklist shows the comments from the previous audit for evaluation of changes by each audit date. The summary checklist, with notes made by the auditors during the audit site visit, is attached in Appendix B for reference. The checklist was used to guide the site walkthrough, document review and personnel interviews.

Findings of the Durham York Energy Centre audit are summarized in the following four sections of this audit report.

2.0 Audit Activities & Attendance

Malroz personnel arrived at the Durham York Energy Centre site on March 4, 2016, at approximately 8:30 am to conduct the site audit. Prior to entering the site, Malroz personnel conducted an initial drive around the perimeter of the site where possible. The audit personnel consisted of Steven Rose, P.Eng., P.Geo. (auditor) and John Pyke, P.Geo. (assistant auditor). Personnel from the owners (Durham & York Regions), and operator/constructor (Covanta) were onsite to support the audit. A briefing was held, where the owners and Covanta personnel provided an update on the current construction, operations and changes since the March, 2014 audit. Attendees of the briefing meeting are identified, along with their employer and contact information, on a sign in sheet (Appendix C).

3.0 Site Walkthrough

Site personnel provided a health and safety briefing and construction status overview prior to the site walkthrough. Photo documentation collected during the site walkthrough is attached (Appendix D). Notes collected during the walkthrough are provided in the audit summary checklist (Appendix B).

Greg Borchuk from Durham Region led the tour, which started in the Regions' offices. The tour proceeded in a counter clockwise direction around the site on the paved access roads.

Weather conditions were sunny and cold with some wind. A description of current site activity was provided. The door to the Tipping Building was open as the tour walked by, no odour or debris was noted. Spill containment kits were noted at each of the stormwater management ponds. The site was predominately graded and seeded with little to no snow cover on the day of the audit visit.

Site personnel reported that stormwater management ponds had been cleaned out to remove accumulated sediment. Removed sediment/soil material was contained in an area between the scale house and the main facility and surrounded by a silt curtain. Dust control was reported to be assisted by the use of a street sweeper operated on an as needed basis.

Areas to review and document identified at the previous audit in March, 2014 for review at the current audit included:

- General housekeeping around the site following abatement of winter conditions,
- Storage of liquid fuels protected from precipitation,
- Repair to the silt curtain in the southeast corner of the site, and,
- General housekeeping and silt curtain repair to drainage ditch near visitors' centre.

These items were not identified as a concern during the March, 2016 visit. During the site walkthrough the site appeared to be in its final condition following construction and general compliance with the approvals requirements was noted.

4.0 Documents Review

Following the walkthrough, a detailed review of the required onsite project documents relating to the construction and operations activities was completed (see Appendix B for Summary Audit Checklist). This audit included a review of the Acceptance Phase testing and was reviewed using the Acceptance Summary Checklist (see Appendix F). Documents were reviewed at the onsite Regions office, Covanta offices and the operations centre. Personnel from the Regions and Covanta participated in the document review.

Documents from the checklist were identified during the review as available or maintained onsite. As with the previous construction phase audits, project staff were readily able to source a document and show relevant supporting documentation when requested by the audit team.

The approvals identified documents required to be maintained on the project website (<http://www.durhamyorkwaste.ca>). A listing of these documents is found in the web document checklist (see Appendix E). Documents required to be available on the project website were listed and accessible on the website at the time of the review. The website further provided a number of additional documents, correspondence and meeting summary information including the ability to receive notifications of documents added to the website.

The document review did not identify areas of non compliance.

5.0 Personnel Interviews

As with the previous audits personnel interviews were conducted during the course of the audit, including the document review, site walkthrough and audit wrap up. Project personnel were asked for clarifications, further descriptions and explanations by the audit team during the document reviews and site walkthrough to allow identification and resolution of items as they were identified. As with the previous four audits, the project team including the owners' staff, and constructor, appeared to continue to be working well together. Each team member appeared to be well informed of the site activities and kept each other up to date on an ongoing basis. This included regular meetings.

The commencement of the audit included an overview of construction and acceptance activities since the previous audit and a description of current events. Since the previous audit, construction was generally complete as was the acceptance testing.

A scheduled shutdown of one boiler for maintenance was underway at the time of the audit site visit.

Covanta identified that one complaint had been received and it was from Region staff who identified an odour at the site. The odour was determined to be from an offsite source and the report was prepared and filed to document the offsite concern. Site staff reported visits from MOECC personnel and that no concerns had been identified.. Related documents were reviewed during the document review portion of the audit.

At the end of the audit, a wrap up discussion was held with the personnel attending the audit.

The interviews did not identify areas of non-compliance.

The audit was completed at 2:45 pm.

6.0 Summary and Recommendations

Section 16 of the Notice of Approval to Proceed with the Undertaking dated October 21, 2010, from the Minister of the Environment, mandates that third party audits be completed. This audit reports on conditions encountered during the fifth audit, following acceptance testing and represents the final construction phase audit.

The audit comprised three parts; document review, site walkthrough, and interviews. The components of this audit were completed on March 4, 2016. Areas of non-compliance were not identified. Areas of improvement were not identified.

Documentation showing that each of the three areas was improved prior to issuance of this audit report was provided by site personnel and is included in Appendix D.

In the opinion of the auditors, the project team continues to work well together in maintaining, documenting and communicating compliance with approvals and authorizations of the Environmental Assessment and Certificate of Approval for the construction of this facility.

Appendix A
Figure 1 - Site Location



Legend

— — — — — approximate property boundary

D0	16/03/10	for review	JW	JP
Rev	Date	Description	By	Chkd

Energy Centre Site Location Plan

Construction Phase Audit
 Durham York Energy Centre
 Clarington, Ontario, Canada

File: 795-113.00

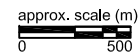


Figure
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Appendix B
Audit Summary Checklist

Appendix B
Audit Summary Checklist

Auditor Checklist			Documentation Required	Summary of Requirement	Reference Document	Relevant Section of Reference Document	Auditor Comments June 14, 2012	Auditor Comments April 5, 2013	Auditor Comments September 6, 2013	Auditor Comments March 28, 2014	Auditor Comments March 4, 2016
Item	Current Audit (Observed / Reviewed)	Previous Audit (Observed / Reviewed)									
1	√	√	ESDM	the ESDM Report	Environmental Assessment	COA 14. (9) (a)	version 1.0 dated March 2011	version 1.0 dated March 2011 (no change from previous audit)	No change.	No change	No change
2	√	√	Acoustic Assessment Report	the Acoustic Assessment Report;	Environmental Assessment	COA 14. (9) (b) COA 7 (5) b.	rev. 1.0 dated March 2011	rev. 1.0 dated March 2011 (no change from previous audit)	No change.	No change	No change
3	√	√	Certificate of Approval & Notices of Amendment & Schedule "A" documents	The Owner shall ensure that a copy of this Certificate, in its entirety and including all its Notices of Amendment and the Supporting Documentation listed in Schedule "A" are retained at the Site at all times.	Environmental Assessment	COA 1 (19)	application dated March 2011, CofA 7306-8FDKNX - June 28, 2011	application dated March 2011, CofA 7306-8FDKNX - June 28, 2011 (no change from previous audit)	No change.	No change	No change
4	√	√	Emergency Contact Information - Names & Numbers	The Owner shall ensure that the names and telephone numbers of the persons to be contacted in the event of an emergency situation are kept up-to-date, and that these numbers are prominently displayed at the Site and at all times available to all staff and	Environmental Assessment	COA 11. (5)	observed posted in site trailer	sign on gate, posted in CPP trailer, rev. 11 dated March 2013 in binder	Same as previous.	sign on gate, posted in CPP trailer rev.12 dated January 21, 2014	Signs at main entrance and at waste delivery entrance
5	√	√	Written Description of Site Activities	The Owner shall maintain an on-Site written or digital record of activities undertaken at the Site. All measurements shall be recorded in consistent metric units of measurement. As a minimum, the record shall include the following:	Environmental Assessment	COA 14. (4)	applies to operations - daily log kept by Covanta on construction activities	site activity log updated daily and kept in binders stored in CPP trailer	Same as previous.	Same as previous.	Observed logs at Covanta operations
6	√	√	Soil Testing records	all records produced during the Soil Testing;	Environmental Assessment	COA 14. (4) COA 7 (10)	plan submitted which is tied to ambient air monitoring - testing not initiated - approval not received	Plan approved by MOE dated March 15, 2013, no records produced as of yet	Same as previous. August 2013 testing undertaken. No report yet.	November 20, 2013 Genivar testing report January 28, 2014 MOE response	November 2013 Genivar base line report October 21, 2015 WSP start of operations
7	√	√	Groundwater and Surface Water Monitoring records	all records produced during the Groundwater and Surface Water Monitoring required by this Certificate;	Environmental Assessment	14. (4) (j)	Groundwater records observed - SW testing not commenced yet	Groundwater and surface water monitoring records in binders	Same as previous. July groundwater and surface water sampling.	Surface water undertaken by Golder Associates on behalf of CPP Goundwater results issued December 2013	April 2014 undertaken by Golder Associates April 2015 undertaken by WSP
7.1	√	X		Thirty days after waste is first received on site, the proponent shall prepare and submit to the Director and Regional Director, a report containing all of the results of the groundwater and surface water monitoring program.	Environmental Assessment	20.7	-	-	-	-	March 2011, groundwater and surface water facility initiation report, prepared by Region personel
8	√	√	Ambient Air Monitoring records	all records produced during the Ambient Air Monitoring required by this Certificate;	Environmental Assessment	14. (4) (k)	plan available dated May 8, 2012	Plan dated May 8, 2012 & Approval dated May 30, 2012	Same as previous. August 14, 2013 MOE letter re: equipment audit.	2013 - Q2/Q3 reports observed as well as the data.	2013 annual report and 2014 annual reports observed
9	√	√	Air Emissions Plan	The proponent shall submit the Air Emissions Monitoring Plan to the Director, a minimum of six months prior to the start of construction or by such other date as agreed to in writing by the Director.	Environmental Assessment	12.5	-	Observed submissions and revised submissions dated up to February 11, 2013. Awaiting MOE approval	MOE approval letter dated April 9, 2013. Marked received by Region of Durham April 19, 2013.	Same as previous.	Same as previous
10	√	√	Soil Testing Report	Within one (1) month of completion of each Soil Testing event, the Regions shall submit to the District Manager a Soil Testing Report, which includes the details on the sampling/testing procedures, the results of the testing and a comparison with the resu	Environmental Assessment	15. (4)	plan awaiting MOE approval	see item 6	Testing started late August. Report not yet received.	see item 6.	see item 6
11	√	√	Soil Testing Plan	This Plan be kept at the Site at all times and be available for inspection by a Provincial Officer upon request.	Environmental Assessment	13. (4) (b) (iv)	plan dated September 23, 2011	see item 6	see item 6.	see item 6.	see item 6

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Item	Current Audit (Observed / Reviewed)	Previous Audit (Observed / Reviewed)									
12	✓	✓	Daily log book	The proponent shall retain, either on site or in another location approved by the District Manager, a copy of the daily log book and any associated documentation.	Environmental Assessment	15.2	see item 5 - daily log kept on-site by Covanta	see item 5	see item 5	see item 5	see item 5
13	✓	X	Daily log book	The record of daily site inspections required to be maintained by Condition 14.3;	Environmental Assessment	15.1.e	required during operations	(no change from previous audit)	(no change from previous audit).	(no change from previous audit).	Control room operator, shift supervisor completed inspections, scales and material tracking log observed
14	✓	X	Daily log book	A record of the daily inspections shall be kept in the daily log book required in Condition 15. The information below must be recorded in the daily log book by the person completing the inspection and includes the following information: (a) date of record and the name and signature of the person completing the report; (b) quantity and source of the incoming waste received at the site; (c) records of the estimated quantity of waste thermally treated in the boilers; (d) quantity of the unacceptable waste received at the site by the end of the approved waste receipt period and the type(s) of unacceptable waste received; (e) quantity and type of residual waste shipped from site, including any required outgoing residual waste characterization results.	Environmental Assessment	14.3	required during operations	see item 5	see item 5.	see item 5.	Control room operator, shift supervisor completed inspections, scales and material tracking log observed
14.1	✓	X	Third Party Audit	The proponent shall retain either on site or in another location approved by the Director, a copy of the written audit report and any associated documentation.	Environmental Assessment	16.6	-	-	-	-	Third Party audit binder April 14, 2014
14.2	✓	X	Notice of Date Waste First Received	Within 15 days of the receipt of the first shipment of waste on site, the proponent shall give the Director and Regional Director written notice that the waste has been received.	Environmental Assessment	23.1	-	-	-	-	Community communications binder February 9, 2015
15	✓	✓	Annual Compliance Report	The proponent shall retain either on site or in another location approved by the Director, a copy of each of the annual Compliance Reports and any associated documentation of compliance monitoring activities.	Environmental Assessment	5.6	Annual Compliance Report dated October 31, 2011	Submitted November 1, 2012, approved by MOE November 30, 2012	Annual 2011 Compliance Report dated October 31, 2011. 2012 report submitted Nov. 1, 2012. Approved November 30.	Annual 2013 Compliance Report, November 1, 2013. MOE confirmation of receipt of report November 13, 2013	2014 Annual Compliance Report submitted October 31, 2014 2015 Annual Compliance Report submitted October 30, 2015
16	✓	✓		Construction phase drainage will route stormwater from throughout the Site to a stormwater sedimentation pond and to the extent feasible, maintain existing drainage routes. Permanent SWM ponds may be constructed early to reduce need for sedimentation ponds.	Environmental Assessment	11.1.2	Two ponds were observed, one in the SE corner, one in SW corner, out fall to CN swale, currently pump out ponds as needed	SE corner pond completed. Outfalls not connected yet. Manual pump out as required to CN swale.	In process of construction for permanent discharge. Visible in aerial photo (August 25).	Additional grading and implementation of drainage, hydro seeding of graded areas along the west and south. Temporary discharge in place at stormwater management pond.	Observed during site visit
17	✓	✓		Use of perimeter ditching and site grading as well as silt fencing around forested areas to isolate runoff.	Environmental Assessment	11.1.2	rock check dams multiple barriers - carpeting after curtain	Some alignment changes to onsite ditches, rock check dams and silt curtain in place, site staff reported that additional seeding and erosion control to be put in place during growing season	Same as previous. Rock check dams in place in swales & ditching in place to channel surface run-off from the site towards established storm water ponds. Silt curtains in place with vegetation established along the perimeter of the site	Same as previous.	Observed storm water management pond materials post cleanout contained by silt curtain
18	✓	✓		Use of setback transition use areas and erosion control fencing along watercourses.	Environmental Assessment	11.1.2	silt curtain along perimeter fencing; other erosion control measures observed in constructed drainage swales	silt curtain along most of perimeter fencing, removed in areas of high ground where surface flow is onto site	Same as previous, and above (item 17).	Same as previous, and above (item 17).	Observed (item 17)
19	✓	✓		ESC will be implemented during the construction phase to reduce potential soil loss and runoff velocities.	Environmental Assessment	11.1.2	rock check dams in drainage swales; silt curtains and erosion prevention mats in place to maintain ESC	drainage feature along western side of the site includes rock check dams and has been realigned from previous audit	Same as previous, and above (item 17).	Same as previous, and above (item 17).	Observed silt curtains around temporary stockpiles
20	✓	✓		During the construction phase, stormwater will be routed via conveyance swales and/or storm sewers draining catchbasins to a SWM pond in the southwest corner of the Site.	Environmental Assessment	11.1.2	two ponds currently in use; connected by drainage swales, no catch basins	catch basins observed to have silt curtain barriers in place	Same as previous, and above (item 17).	Same as previous, and above (item 17).	Observed
21	✓	✓		The pond will discharge to the CN Rail swale and stormwater will subsequently be conveyed to Tooley Creek.	Environmental Assessment	11.1.2	little to no discharge, ponds pumped as needed temporary piped discharge outfall is in place at the outlet of the west storm water management pond	stormwater management ponds pumped manually as needed	Same as previous.	Implementation of offsite drainage plan observed and reported in progress for Energy Business Park.	Same as previous
22	✓	✓		In addition to the pond, lot level, and conveyance controls such as surface stabilization measures, sediment traps, and swales enhanced with rock check dams will also be employed.	Environmental Assessment	11.1.2	most site exposed soils, rock check dams along north and west drainage courses	see items 17, 19 and 20	See items 17, 18, 19 and 20.	See items 17, 18, 19 and 20. Observed during site walk.	Work complete; observed during site visit
23	✓	✓		Grading plans will be designed to maintain existing drainage patterns which will ensure all captured stormwater will be routed through SWM features.	Environmental Assessment	11.1.2	site grading in progress, storm water observed to be captured on site in two storm water management ponds	(no change from previous audit)	No change.	Final grading observed in most areas.	Work complete; observed during site visit
24	✓	✓		Dewatering and excavation pumping is expected in order to establish a sufficiently dry environment to construct the Facility foundations.	Environmental Assessment	11.1.2	management of surface water accumulation observed in open excavations adjacent to exposed building foundation walls	no open excavations observed at the time of the audit	Same as previous.	Same as previous.	No excavations observed; construction complete
25	✓	✓		A series of groundwater monitoring wells may be installed within the Site to assess the Facility's effects on both groundwater quantity and quality during construction to be determined at subsequent approvals stage.	Environmental Assessment	11.1.2	wells completed above grade, good external condition, locked	MW4 top of pipe elevation reduced to accommodate site grading, external casings of wells appeared in good condition and locked	No changes observed to monitoring wells from previous site audit visit.	New well in centre of site near to waste tipping hole. Replaced wells in southwest corner per construction.	No changes monitoring wells at north side outside of fence
26	✓	✓		Topsoil and subsoil salvage and storage.	Environmental Assessment	11.2/11.3	3 piles, recently seeded western pile - stored onsite with excess to be reused by region	temporary stockpiles of soils, contractor reports that stockpiled excess soils to be removed from site when spring weight restrictions come off roads on May 1.	Temporary stockpiles observed in previous audit have been removed. Other temporary stockpiles are observed in different locations to accommodate ongoing construction activities. Long term stockpile immediately west of the main building has now been vegetated.	One remaining stockpile south of switch yard. To be removed for final grading (after spring land restrictions).	Some temporary storage onsite Other berms offsite

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27	✓	✓		Apply erosion and sedimentation control measures (also described in surface water).	Environmental Assessment	11.2/11.3	see item 19	see items 17, 19, 20	See items 17, 18, 19 and 20.	See items 17, 18, 19 and 20.	See items 17, 18, 19 and 20.
28	X	X		Pile driving effects will be reduced through alternative technologies (e.g., vibratory pile driving), controls, and scheduling.	Environmental Assessment	11.4	not using piles during construction, building construction using spread footings	(no change from previous audit)	(no change from previous audit)	(no change from previous audit)	Not applicable
29	X	✓		Construction vehicle traffic is predicted to be acceptable against applicable criteria, but short-term (i.e., 1-hour) effects during peak demand are possible. These peaking issues will be reduced through scheduling and planning of vehicle trips.	Environmental Assessment	11.4	- based on manpower resource impact to local roads assessed on a ongoing basis - 2 concrete trucks 2 support personnel vehicles and approximately 20 personal vehicles observed	Site staff continue to monitor daily vehicle traffic, no identified issues or concerns. Approximately 100 vehicles associated with the site at the time of the audit. A load restriction exemption was obtained for the north portion of Osborne Road. Truck traffic is routed on-site to the south of this point to reduce traffic impacts.	Same as previous.	Same as previous. No issues noted.	Not applicable
30	✓	✓	Monitoring Program	A monitoring program and contingency plan will be implemented to address any issues that may arise during the construction and post-closure periods of the Facility.	Environmental Assessment	11.4	construction monitoring undertaken by - Kenaidan - EHS contents R16.docx - Post-closure-n/a	Updated March 27, 2013	Superceeded version marked VOID, removed from main document and kept in front cover of binder. Same plan as previous.	Revision 12 January 21, 2014, site specific environmental plan February 4, 2014. Emergency Response Plan Revision 2.	Reliance on existing plans previously observed
31	✓	✓		The Facility will be designed to current standards incorporating efficiencies and design enhancements that reduce sound emissions.	Environmental Assessment	11.4	everything internal engineered design, acoustic RFP, EA appendix A of Technical requirements	Noise technical requirements section 4.4.14 Appendix 1 to project agreement	(no change from previous audit)	(no change from previous audit)	No change
32	✓	X		Where necessary, mitigation measures will be included to ensure applicable noise criteria are met at PORs as predicted.	Environmental Assessment	11.4	relevant to operations	(no change from previous audit)	(no change from previous audit)	(no change from previous audit)	Acoustics audit conducted May 8, 2015 December 11, 2015 by MOECC, in compliance
33	✓	X		Mitigation measures may include the use of equipment control options such as enclosures, local or property-line barriers, mufflers and silencers, and acoustic baffles or insulation.	Environmental Assessment	11.4	relevant to operations	(no change from previous audit)	(no change from previous audit)	(no change from previous audit)	Acoustics audit conducted May 8, 2015 December 11, 2015 by MOECC, in compliance
34	X	✓		Staging of construction activities.	Environmental Assessment	11.5	phased construction plan supporting schedule & construction operations	Observed updated master project schedule. Covanta and CPP report ongoing adjustments to schedule based on progress and regular review of phased approach.	Same as previous. Regular updates on critical path activities.	Weekly project planning and scheduling management. Observed weekly scheduling.	Not applicable
35	✓	✓		Timely removal of construction debris.	Environmental Assessment	11.5	none off-site yet, recycling in place, waste management plan - procedure C5.3.1/p4-> CofA received for waste service providers - removed as needed - source separated recyclables and waste	Waste management plan on-site, observed waste management during walkthrough. Routine site cleanup to pick up debris, recycling program.	Expanded waste management. Kenaidan provided a waste diversion summary.	Observed January 31, 2014 waste management reduction process report	Observed 1 waste bin onsite for scheduled facility maintenance
36	X	✓	Monitoring Program	A monitoring program and contingency plan will be implemented to address any issues that may arise during the construction of the Facility.	Environmental Assessment	11.5	see item 30 refer to commitments	See item 30, construction monitoring plan, updated: March 27, 2013	(no change from previous audit)	(no change from previous audit)	Not applicable
37	✓	✓		Investment in architectural enhancements to the Facility.	Environmental Assessment	11.5	see host community agreement - \$9 M - report to joint committee	documented in joint report to Council dated June 6, 2012	(no change from previous audit)	(no change from previous audit)	(no change from previous audit)
38	✓	✓	Wildlife Protocols	Protective protocols to avoid killing or harming wildlife during Project activities.	Environmental Assessment	11.6	species at risk : milk snake - Golder Tech memo Nov. 16, 2011 - educating for habitat and steps - nesting birds - erosion control mat is designed not to entangle milk snakes	Training program with wildlife program as identified in previous audit is ongoing, logs observed.	Recent documentation of site observations August 30, 2013.	Recent documentation of site observations March 21, 2014, weekly site observations undertaken.	Carried through construction Not applicable to operations
39	✓	✓	Wildlife Protocols	Wildlife corridor along the entire east-west length of the Facility's southern property line may be established to enhance wildlife movement.	Environmental Assessment	11.6	corridor along south naturally vegetated and clear of construction activities	fenced corridors observed to be clear of construction activities	(no change from previous audit)	Converted to swale, will serve as wildlife corridor.	In place
40	✓	✓		Native tree and shrub species will be planted and existing species allowed to grow without disturbance providing additional habitat.	Environmental Assessment	11.6	Landscape plans L - L1/L2 Henry Kortekeas & Associates protected tree - reseeded of topsoil - new trees along south prop line	Landscape plan design change to southwest pond to protect norway spruce and sugar maple. Tree preservation plan L-TP1	In progress of initial implementation.	Landscape plan. All approved in progress with construction.	Approved by Clarington, Landscape plan in place
41	✓	✓	Pre-construction Bird Survey	Undertake a pre-construction survey to assess bird nesting activity prior to clearing and grubbing.	Environmental Assessment	11.6	Golder - Nov 16, 2011- Completed October 21, 2011 Covanta pre - construction survey & log	(no change from previous audit)	(no change from previous audit)	(no change from previous audit)	Complete
42	✓	✓		Dust control during construction will be accomplished through a number of physical and operational methods such as construction exits, timely revegetation, watering, and staging of work.	Environmental Assessment	11.7/11.8/11.9	Kenaidan - Procedure C5.3.4 Air Quality - Dust separate mud/rock rds, speed control - water trucks, turnover soil, increase moisture - raining during visit - ongoing discussion day to day, shutdown for dryness as needed	Rev.002 dated March 27, 2013	Observed wet roads. Site specific plan March 26, 2013 rev. 11.	Wet conditions on site, no dust issues. Site specific plan January 21, 2014 rev. 12 section C.5.3.4	Fugitive odour, dust, litter plans observed Dust sweeper to control roadway dust
43	✓	✓		Deeply buried archaeological resources could still exist and standard conditions regarding discovery of human remains and/or other cultural heritage values will apply.	Environmental Assessment	11.7/11.8/11.9	site orientation program - site specific health and safety Environmental Plan - C5.3.21 - presentation wording not complete will be updated - Call Ministry of Culture, have phone # - updated plan received on June 7, 2012	Rev.002 dated March 27, 2013	(no change from previous audit)	Rev.003 dated February 4, 2014, no reported archeological encounters since last audit	No reported archeological encounters since last audit
44	✓	✓	Clarington Master Drainage Plan 2011	Road/pavement improvements to the South Service Road and Osborne Road to accommodate construction vehicles.	Environmental Assessment	11.7/11.8/11.9	new resurface Osborne Rd - part of host community agreement master drainage plan overview plan Dwg 8 - staging plan/stage 2, 3 2 of 3 and 3 of 3 - overview provided	Clarington Energy Business Park, HDR drawing dated January, 2011	Observed AECOM and HDR drawings. Reported out for contract approval.	Observed AECOM plan for Clarington dated January, 2011.	Not applicable, construction complete
45	✓	✓	Committee Documentation	Formation of a Thermal Treatment Facility Site Liaison Committee (SLC) for the construction period.	Environmental Assessment	11.7/11.8/11.9	condition 8 - part of annual compliance report	2012 annual compliance report shows meeting minutes for meetings 4, 5 and 6 for Energy From Waste Advisory Committee (EFWAC)	Same as previous audit visit. Missing minutes for meeting 6, which are to be provided in annual report.	Minutes of meetings 1-9 (October 2, 2013)	Minutes of meetings 1-12 documented in binder
46	✓	✓	Complaints Protocol	Development and implementation of a community complaints system for construction.	Environmental Assessment	11.7/11.8/11.9	EAAB file EA - 08 - 02 2011.01.31/06.20 in place monthly complaint log - July 13, 2011 Ministry acceptance Amended 11/06/20 log	Monthly report to consolidate questions and complaints	Monthly reports through to June (issued July 26).	Protocol EAAB - EA-08-02 ammended submission 2011-06-20 monthly reports through to November and December (issued January 21).	Complaint reports recorded in binder for 2014 and 2015 December 2015 needs to be printed and added Covanta protocol DYEC - Public complaints
47	✓	✓		Employment of controlled entrances and exits at the construction site to minimize the offsite tracking of mud.	Environmental Assessment	11.1	observed - gated - separate rock/mud road vehicles	Two entrances with security. Paved partial onsite roads to separate onsite and offsite traffic	Observations during site walk. 2 entrances.	Observed controlled entrances. Gate in northwest corner not being used.	Gates and scaled observed; roadways paved
48	✓	✓		Temporary and permanent grassing in disturbed areas.	Environmental Assessment	11.1	sediment and erosion control ref: temporary seeding of stockpiles - no permanent grassing at time of audit	site staff identify that seeding of temporary stockpiles is scheduled for when weather permits	see item 26. vegetation cover in place on long term stockpiled soils; other areas are under active construction.	see item 26. Hydroseeding October 21, 2013 (south) and November 5, 2013 (west).	Complete except for temporary soil storage

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49	✓	✓		Dust control during dry periods.	Environmental Assessment	11.1	see earlier comments - raining during visit not observed, procedures in place	measures to remove accumulated mud and dust from roads were observed, dust control and management policy in place with daily and weekly cleaning of on-site roadways, plus off-site roadways when needed	(no change from previous audit)	Wet conditions during site visit, no dust issues. See item 42.	Part of Covanta operations (sweeper)
50	✓	✓		Possible implementation of an idling protocol as required.	Environmental Assessment	11.1	procedure C5.3.4 - see section 2 part of EHS plan by Courtice Power Partners	plan dated July, 2011 R1	(no change from previous audit)	Procedure C.5.3.4 - part 4 of 6, plan dated July 18, 2011.	Covanta reports that an idling protocol for operations is under consideration, construction requirement
51	✓	✓	Maintenance Program	Adherence to an equipment maintenance program.	Environmental Assessment	11.1	operations in project agreement for further development annual service plan section 36.8 of project agreement	Facility manager hired. Contract between Regions and Covanta	Chief Engineer hired (August 2013) Maintenance Supervisor (to be hired in September) ahead of operations.	Hired Maintenance Supervisor and Environmental Specialist. Ongoing hiring of other personnel.	Staff continuing in these roles, maintenance manager and software programs See items 59.1, 59.2
52	✓	✓	Results of Ambient Air Monitoring	Ambient air quality monitoring for particulate matter will be undertaken to monitor the effectiveness of the mitigation measures.	Environmental Assessment	11.1	plan submitted for approval - not approved yet, no results as intended for operations to initiate 12 months before receipt of waste operations	See item 8, monitoring locations approved	See item 8. MOE August 14, 2013	See item 8.	See item 8
53	✓	✓	Environmental Training to Site Workers	Environmental protection awareness, spill prevention planning and contingency training will be implemented for all employees as necessary and appropriate.	Environmental Assessment	11.2	- Courtice Power Partners EHS - site orientation level 1 orientation spill mgt C5.3.16 - S.F.5.2.4 site safety orientation check list	Rev. 11, March 26, 2013, site specific safety plan with environmental awareness and compliance training protocols	Rev. 11/March 26, 2013. (no change).	Rev. 12, January 21, 2014.	See Covanta training program
54	✓	✓	EA Compliance Monitoring Program	The Regions will prepare and submit to the Director of the EAAB of the Ontario MOE an EA Compliance Monitoring Program.	Environmental Assessment	15	submitted, on project website October 2011 - see item 15	see item 15, 2012 report submitted	November 1, 2012 (same as previous).	See item 15.	See item 15
55	✓	✓	ESDM, Acoustic Report, Annual Report, 3rd party audit	The Owner shall keep at the Site the following reports required by this Certificate: (a) the ESDM report; (b) the acoustic assessment report; (c) the annual report; and (d) the third party audit	Certificate of Approval	14. (9)	observed documents a, b and c. Check for third party audit at next audit	See items 1, 2, 15. June 2012 audit observed.	ESDM/Acoustic reports observed Observed April 2013 report.	See items 1, 2, 15 September 16, 2013 report observed. April 2013 report observed. June 2012 audit observed.	See items 1, 2, 14.1, 15 First annual facility compliance report to be submitted March 31, 2016
56	✓	X	Updates to CoFA	Any design optimization or modification that is inconsistent with the conceptual design set out in the Supporting Documentation in Schedule "A" shall be clearly identified, along with an explanation of the reasons for the change and submitted to the Director for approval.	Certificate of Approval	1. (3) (b) (i)	no changes requested to date	(no change from previous audit)	(no change from previous audit)	(no change from previous audit)	Two amendments August 12, 2014 several changes October 24, 2014 bottom ash line condition system and bottom ash storage December 23, 2015 noise plan revoked, verbal retraction
57	✓	X	Updates to CoFA	If a change to the conceptual design is submitted to the Director for approval, no construction of the Site shall commence prior to the Director approving, in writing, the final conceptual design of the Site.	Certificate of Approval	1. (3) (b) (ii)	N/A as per item 56	(no change from previous audit)	(no change from previous audit)	(no change from previous audit)	See item 56
57.1	✓	X	As-built Drawings	Within ninety (90) days of the completion of the initial successful Source Testing program, a set of as-built drawings showing Facility and the Works and bearing the stamp of a professional engineer, shall be prepared, and retained at the site.	Certificate of Approval	1. (4) (a-d)	-	-	-	-	Correspondence Philip Dunn February 4, 2016 meeting with DYEC January 29, 2016, December 14, 2015 as built to be prepared by March 14, 2016
58	✓	✓	CoA	The Owner shall ensure that a copy of this Certificate, in its entirety and including all its Notices of Amendment and the Supporting Documentation listed in Schedule "A" are retained at the Site at all times.	Certificate of Approval	1. (19)	see item 3	see items 3 and 55	see items 3 and 55.	see items 3 and 55.	see items 3, 55, and 56.
58.1	✓	X	CoA	Prior to receipt of Waste at the Site, the Owner shall ensure that a sign is posted at the entrance to the Site. The sign shall be visible from the main road leading to the Site.	Certificate of Approval	3. (1) (a-h)	-	-	-	-	verbal staff report (MOECC inspection sinage part of inspection and observed during audit visit)
59	✓	✓	CoA	The Owner shall ensure that the Site is fenced in and that all entrances are secured by lockable gates to restrict access only to authorized personnel when the Site is not open.	Certificate of Approval	3. (6)	chain link with barbed wire on top and locked/lockable gates	lockable controlled entrances, security trailer with sign in process and controlled access for both vehicles and pedestrians	Same as previous.	Same as previous.	Observed
59.1	X	X	CoA	The Owner shall prepare a list of critical spare parts, update the list annually or more frequently, if necessary, to ensure that this list is maintained up-to-date and shall be available for inspection by a provincial Officer upon request.	Certificate of Approval	4. (a)	-	-	-	-	see 51, observed maintenance plans at Covanta operations
59.2	✓	X	CoA	Prior to receipt of Waste at the Site, the Owner shall prepare and update as necessary, an Operation and Maintenance Manual for all Equipment, the APC Equipment, the CEM Systems, the Work and any other equipment associated with the managing of the Waste and with the control of environmental impacts from the Facility.	Certificate of Approval	5. (2)	-	-	-	-	Ongoing update of facility maintenance programs part of Covanta Operations and maintenance programs. Observed maintenance plan and logs as well as Oracle databases, work orders and sign off when complete (see item 59.1)
59.3	✓	X	CoA	Prior to the receipt of the Waste at the Site, the Owner shall prepare a comprehensive written inspection program which includes inspectors of all the Site's operations	Certificate of Approval	5. (5) (a-h)	-	-	-	-	Daily management meeting regarding inspections and maintenance (see item 59.1)
59.4	✓	X		The Owner shall perform annual Source Testing in accordance with the procedures and schedule outlined in Schedule "E", to determine the rate of emission of the Test Contaminants from the stack. First source testing program shall be conducted not later than six (6) months after Commencement Date of Operations	Certificate of Approval	7. (1)	-	-	-	-	December 15, 2015 Emission Testing Acceptable Correspondence to Leon Brasowski (from MOECC district Manager) 1st test part of Environmental acceptance testing (see Appendix F check list) Booked May 8, 2016

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59.5	✓	X		The Owner shall develop, install, maintain and update as necessary a long-term sampling system, with a minimum monthly sampling frequency, to measure the concentration of Dioxins and Furans in the Undiluted Gases leaving the APC Equipment associated with each Boiler [...].	Certificate of Approval	7. (3) (a)	-	-	-	-	Interim AMESA Evaluation Report (Covanta Report 4053) November 2015 (Tab 9)
60	✓	✓	Ambient Air Monitoring and Reporting Plan	The Regions shall develop and implement the Ambient Air Monitoring and Reporting Plan, in accordance with the requirements set out in the EA Approval and as determined to be acceptable by the Regional Director.	Certificate of Approval	7. (4) (a)	see item 8	See item 8, monitoring locations approved	Same as previous.	See item 8.	See Item 8
60.1	✓	X		A minimum of six (6) months prior to the Commencement Date of Operation, the Owner shall submit to the Director for approval, a Testing Protocol for testing of the bottom ash for compliance with the criteria set out in the "incinerator ash" definition from the O. Reg. 347 and for testing of the Residual Waste for compliance with the criteria set out in the Certificate	Certificate of Approval	7. (7) (d)	-	-	-	-	Ash Protocol Reports Binder Protocol submitted June 2014 MOECC letter to Durham Region July 25, 2014
61	✓	✓	Soil Testing Plan	Within one hundred and twenty (120) days from the date of this Certificate, the Regions shall undertake the soil testing in accordance with the Soil Testing Plan required by this Certificate.	Certificate of Approval	7. (10) (a)	awaiting approval - see items 6, 9, 11	see items 6, 10, 11	August 22 sampling event. No report available yet. See items 6, 10, 11.	Same as previous. See items 6, 10, 11.	Same as previous. See items 6, 10, 11
62	✓	✓	GW and SW Monitoring Plan	The Regions shall develop and implement the Groundwater and Surface Water Monitoring Plan, in accordance with the requirements set out in the EA Approval and as determined to be acceptable to the Regional Director.	Certificate of Approval	7. (14) (a)	see item, 7	see item 7	See item 7.	See item 7.	See item 7
63	✓	✓	Results of GW / SW monitoring	The Regions shall report the results of the Groundwater and Surface Water Monitoring program to the Regional Director and to the Director in accordance with the schedule set out in the EA Approval and in accordance with the requirements of Condition 14.	Certificate of Approval	7. (14) (b)	see item 7	see item 7	See item 7.	See item 7.	See item 7
64	✓	✓	Groundwater and Surface Water Monitoring Plan	The Regions shall post the Groundwater and Surface Water Monitoring Plan and the results of the Groundwater and Surface Water Monitoring program on the Owner's web site for the Facility in accordance with the requirements of the EA Approval and Condition 15.	Certificate of Approval	7. (14) (c)	see item 7	see item 7	See item 7.	See item 7.	See item 7
65	✓	✓	Odour Management and Mitigation Plan	The Owner shall prepare and implement an Odour Management and Mitigation Plan in accordance with the requirements set out in the EA Approval and as determined to be acceptable to the Regional Director.	Certificate of Approval	8. (8)	submitted/awaiting approval May 4, 2012 (joint regions) - submitted to MOE	Clairifications July 30, 2012 and submitted to MOE. Approved by the MOE Aug 21, 2012.	(no change from previous audit)	(no change from previous audit)	Revised Plan - Golder, 2014 , submitted to MOECC January 8, 2015 Observed Covanta - fugitive odour and dust plan July, 2015
65.1	✓	X		The Owner shall continue to submit an updated Odour Management and Mitigation Plan until such time as the Regional Director notifies the Owner in writing that further submissions are no longer required.	Certificate of Approval	8. (9) (b)	-	-	-	-	Relying on submission in 65 (January 8, 2015)
65.2	✓	X		(The Owner shall:) hire a qualified, licensed pest control professional to design and implement a pest control plan for the Site. The pest control plan shall remain in place, and be updated from time to time as necessary, until the Site has been closed and this Certificate has been revoked.	Certificate of Approval	8. (14) (b)	-	-	-	-	October 30, 2015 Abell Pest Control Plans onsite every 2 weeks Measures observed during site walk
66	✓	✓		The Owner shall provide visual screening for the Site in accordance with the documentation included in the attached Schedule" A".	Certificate of Approval	8. (15)	host community agreement - truck laneway screening along south - not yet constructed	Amended proposal to municipality to implement barrier with coniferous trees (vegetated screen).	(no change from previous audit)	(no change from previous audit)	Landscaping and plantings observed during visit
66.1	✓	X		The Owner shall develop and implement a Contingency and Emergency Response Plan in accordance with the requirements set out in the EA Approval.	Certificate of Approval	11. (1) (a)	-	-	-	-	May 2015 Emergency Action Plan / Fire Safety Plan. Covanta DYEC Spill and Emergency Response Plan January 13, 2014
66.2	✓	X		In addition to the requirements set out in the EA Approval, the Contingency and Emergency Response Plan, as a minimum, shall include the following: (see sections 11. (2) (a) to 11. (2) (n) (vi)	Certificate of Approval	11. (2) (a) to 11. (2) (n) (vi)	-	-	-	-	May Emergency Action Plan / Fire Safety Plan Covanta DYEC Spill and Emergency Response Plan January 13, 2014

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67	√	√	Emergency Contact Information - Names & Numbers	The Owner shall ensure that the names and telephone numbers of the persons to be contacted in the event of an emergency situation are kept up-to-date, and that these numbers are prominently displayed at the Site and at all times available to all staff and emergency response personnel.	Certificate of Approval	11. (5)	see item 4	see item 4	See item 4.	See item 4.	Posted in Covanta office (also see item 4)
67.1	√	X		The Owner shall ensure that the equipment and materials listed in the Contingency and Emergency Response Plan are immediately available at the Site, are in a good state of repair, and fully operational at all times.	Certificate of Approval	12. (2)	-	-	-	-	Daily outside inspection form and management oversight Site observations from audit visit
67.2	√	X		The Owner shall notify the District Manager in writing, at least sixty (60) days prior to the scheduled date for the first receipt of Waste at the Site, as to whether or not the construction of the Facility has been carried out in accordance with this Certificate to a point of Substantial Completion.	Certificate of Approval	13. (1)	-	-	-	-	Notice provided April 22, 2014 from Regions to D. Fumerton MOECC
68	√	√	Soil Testing Plan	Within ninety (90) days from the date of this Certificate, the Regions shall prepare and submit to the District Manager for concurrence, a Soil Testing Plan to monitor the impact of the Site operations at the locations where the ambient air monitoring is proposed by the Owner in accordance with the requirements set out in the EA Approval.	Certificate of Approval	13. (4) (a)	see items 6, 10, 11, 61	see items 6, 10, 11, 61	See items 6, 10, 11, 61.	See items 6, 10, 11, 61.	See items 6, 10, 11, 61
69	√	√	Soil Testing Plan	This Plan be kept at the Site at all times and be available for inspection by a Provincial Officer upon request.	Certificate of Approval	13. (4) (b) (iv)	see items 6, 10, 11, 61	see items 6, 10, 11, 61	See items 6, 10, 11, 61	See items 6, 10, 11, 61	See items 6, 10, 11, 61
69.1				The Owner shall maintain an on-Site written or digital record of activities undertaken at the Site. All measurements shall be recorded in consistent metric units of measurement. As a minimum, the record shall include the following:	Certificate of Approval	14. (3) (including (a) to (k))	-	-	-	-	Covanta operations logs include unacceptable waste log (see items 5, 12, 13, and 14)
70	√	√	Soil Testing Records	all records produced during the Soil Testing;	Certificate of Approval	14. (4) (i)	not available awaiting plan approval	see item 6	Awaiting results for August 22 sampling.	see item 6.	Complete see item 6
71	√	√	Groundwater and Surface Water Monitoring records	all records produced during the Groundwater and Surface Water Monitoring required by this Certificate;	Certificate of Approval	14. (4) (j)	see item 7	see item 7	See item 7.	see item 7	Complete see item 7
72	√	√	Air Monitoring Records	all records produced during the Ambient Air Monitoring required by this Certificate;	Certificate of Approval	14. (4) (k)	see item 8	see item 8	See item 8.	See item 8.	See item 8
72.1	√	X		The Owner shall maintain an on-Site written or digital record of inspections and maintenance as required by this Certificate. As a minimum, the record shall include the following: (see (a) through (g))	Certificate of Approval	14. (5)	-	-	-	-	Observed at Covanta operations, daily logs kept by engineering, operations and maintenance personnel.
72.2	√	X		The Owner shall maintain an on-Site written or digital record of emergency situations. As a minimum, the record shall include the following: (see (a) through (f))	Certificate of Approval	14. (6)	-	-	-	-	Observed at Covanta operations, daily logs kept by engineering, operations and maintenance personnel.
72.3	√	X		The Owner shall maintain an on-Site written or digital record of complaints received and the responses made as required by this Certificate.	Certificate of Approval	14. (7)	-	-	-	-	Observed at Covanta operations including complaints log
72.4	√	X		The Owner shall maintain an on-Site written or digital record of training as required by this Certificate. As a minimum, the record shall include the following: (a) date of training (b) name and signature of person who has been trained, and (c) description of the training provided	Certificate of Approval	14. (8)	-	-	-	-	Observed at Covanta operations including training matrix
73	√	√		The Owner shall keep at the Site the following reports required by this Certificate: (a) the ESDM report; (b) the acoustic assessment report; (c) the annual report; and (d) the third party audit	Certificate of Approval	14. (9)	see item 55. Review at next audit.	see item 55	Same as previous. Observed audit 1 plus addendum, as well as audit 2.	see item 55.	See item 55
74	√	√	ESDM	the ESDM Report	Certificate of Approval	14. (9) (a)	see item 1	see item 1 (no change from previous audit)	See item 1. (no change from previous audit)	See item 1. (no change from previous audit)	See item 1 (no change from previous audit)
75	√	√	Acoustic Assessment Report	the Acoustic Assessment Report;	Certificate of Approval	14. (9) (b)	see item 2	see item 2 (no change from previous audit)	See item 2. (no change from previous audit)	See item 2. (no change from previous audit)	See item 2 (no change from previous audit)
76	√	√	Annual Compliance Report	Annual Report	Certificate of Approval	14. (9) (c)	not applicable for 1 st audit	see item 15, 2012 report submitted	(no change from previous audit)	(no change from previous audit)	See item 55

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77	√	√	3rd Party Audit	Third Party Audit	Certificate of Approval	14. (9) (d)	not applicable for 1 st audit	see item 55, June 2012 audit report on file	Observed audit 1 plus addendum, as well as audit 2.	see item 55.	See item 55
78	√	√	Soil Testing Results	Within one (1) month of completion of each Soil Testing event, the Regions shall submit to the District Manager a Soil Testing Report, which includes the details on the sampling/testing procedures, the results of the testing and a comparison with the results obtained during the previous Soil Testing.	Certificate of Approval	15. (4)	see item 10	see items 6 and 10	See items 6 and 10.	See items 6 and 10. MOE January 28, 2014 letter confirming receipt and timeline met.	Complete see items 6 and 10.
79	√	X	Current Site Activity for Public Review	The Owner shall, at all times, maintain documentation that describes the current operations of the Facility. The Owner shall post the documentation at the website for the undertaking and during regular business hours, the Owner shall make the following documents available for inspection at the Site by any interested member of the public, upon submission to the Ministry for review: (a) a current ESDM report that demonstrates compliance with the performance limits for the facility regarding all compounds of concern; (b) a current acoustic assessment report that demonstrates compliance with the performance limits for the facility regarding noise emissions; (c) the most recent annual report; (d) the most current third party audit report; (e) odour management and mitigation plan, prepared in accordance with the requirements of the EA approval; (f) noise monitoring and reporting plan, prepared in accordance with the requirements of the EA approval; and (g) groundwater and surface water monitoring and reporting plan, prepared in the accordance with the requirements of the EA approval.	Certificate of Approval	16. (1)	required during operations	(no change from previous audit)	(no change from previous audit)	(no change from previous audit)	Access is through Region site personnel and on the DYEC website and observed during audit
80	√	X	ESDM	a current ESDM Report that demonstrates compliance with the Performance Limits for the Facility regarding all Compounds of Concern;	Certificate of Approval	16. (1) (a)	applicable during operations	(no change from previous audit)	(no change from previous audit)	See item 1 (no change from previous audit)	See item 1 (no change from previous audit)
81	√	√	Acoustic Assessment Report	a current Acoustic Assessment Report that demonstrates compliance with the Performance Limits for the Facility regarding noise emissions;	Certificate of Approval	16. (1) (b)	observed on project website	see item 2 (no change from previous audit)	See item 2 (no change from previous audit)	See item 2 (no change from previous audit)	See item 2 (no change from previous audit)
82	√	√	Annual Report	the most recent Annual Report;	Certificate of Approval	16. (1) (c)	observed on project website	see item 15 (no change from previous audit)	See item 15 (no change from previous audit)	See item 15 (no change from previous audit)	See item 15 (no change from previous audit)
83	√	√	Odour Management and Mitigation Plan	Odour Management and Mitigation Plan, prepared in accordance with the requirements of the EA Approval;	Certificate of Approval	16. (1) (e)	observed on project website, see item 65	observed on project website, see item 65	Observed on project website, see item 65	Observed on project website, see item 65	Observed on project website, see item 65
84	√	√	Noise monitoring plan	Noise Monitoring and Reporting Plan, prepared in accordance with the requirements of the EA Approval; and	Certificate of Approval	16. (1) (f)	observed on project website	observed on project website	observed on project website	Observed Golder #10-1151-0343-NMRP submission 2011.09.15. Same as previous.	Acoustics audit conducted May 8, 2015 November 23, 2015 supplement during acceptance test (Tab 10) and MOECC Approval
85	√	√	GW and SW Monitoring Plan	Groundwater and Surface Water Monitoring and Reporting Plan, prepared in accordance with the requirements of the EA Approval.	Certificate of Approval	16. (1) (g)	observed on project website, see items 7 & 62.	observed on project website, see items 7 & 62.	Observed on project website. See items 7 & 62.	same as previous.	See items 7 and 62
86	√	√	Advisory Committee Documentation	The Regions shall establish an Advisory Committee in accordance with the requirements set out in the EA Approval.	Certificate of Approval	17. (1)	see item 45	See 45, In 2012 annual compliance report shows meeting minutes for meetings 4, 5 and 6 for Energy From Waste Advisory Committee (EFWAC)	meeting 6 (October 24, 2013) agenda observed, minutes to be included in 2013 report as finalised at meeting 7 (February 12, 2013)	see item 45	See item 45
87	√	√	NOPC to MOL	Notice of Project Commencement filed with MOL		general requirement to conform to applicable legislation and protect health and safety	filed January 19, 2012 - posted by Courtice Power Partners	March 19, 2013 Ministry of Labour inspection. No actionable items reported by site staff	Ministry of Labour onsite July 19 to respond to complaint. Follow up on July 22. Project staff identified items noted in Ministry letter during site walkthrough. No further action indicated.	Observed posted in Covanta trailer and photographed.	Constuction complete
88	√	√	HASP	Health and Safety Plan, including spills and upset conditions		general requirement to conform to applicable legislation and protect health and safety	Courtice Power Partners Environmental, Health & Safety EHS - posted by Courtice Power Partners	same as previous audit, revisions observed	Courtice Power Partners Environmental, Health and Safety Manual R16. March 21, 2012 and updates.	Observed posted in Covanta trailer and photographed.	Covanta - Total Health and Safety Policy May 28, 2014
89	√	√	Inspection Reports	Inspection Reports (municipal/provincial/federal)		general requirement to conform to applicable legislation and protect health and safety	1 site visit by MOE as part of regularly scheduled meeting, update mtgs - inspected by Durham Region Safety Consultant	Bi-monthly meetings at site with MOE, no actionable items reported by site staff	Same as previous. Last bi-monthly meeting on August 15, 2013. No concerns reported.	Binder of MOL investigations, most recent February 26, 2014. Indoor air goal and ventilation resolved without order.	MOECC, compliance summary inspection, most recent March 18, 2015 No environmental concerns identified

Auditor Checklist			Documentation Required	Summary of Requirement	Reference Document	Relevant Section of Reference Document	Auditor Comments June 14, 2012	Auditor Comments April 5, 2013	Auditor Comments September 6, 2013	Auditor Comments March 28, 2014	Auditor Comments March 4, 2016
Item	Current Audit (Observed / Reviewed)	Previous Audit (Observed / Reviewed)									
90	√	√	MOE Letter Accepting Adjustmetn of Construction Audit #3 to September 6, 2013	Consent to change date of Audit #3		-	-	MOE letter dated August 12, 2013.	Same as previous	Same as previous	
91	√	√	MOE Letter Accepting Adjustment of Construction Audit #4 to April 14, 2014	Consent to change date of Audit #4		-	-	-	January 31, 2014 MOECC letter confirm Audit #4 submission date of April 14, 2014	Same as previous	
91.1	√	X	MOE Letter Accpeting Third Pary Audit #5 Date	Consent to Audit #5 date		-	-	-	-	Observed at site and on website, provided in advance of audit	
92	√	√	Natrual Heritage Report - Existing Conditions May, 2013. Environmental Management Plan, August 2013	Approval to remove Sugar Maple in Southwest corner of site for access		-	-	-	Observed reports and consultation with CLOCA.	No change	

Appendix C
Audit Sign in Sheet

2016.03.04

DYEC AUDIT VISIT.
MEETING ATTENDANCE.

NAME	COMPANY/AFFILIATION	CONTACT.
STEVEN ROSE	MALROZ ENGRG	rose@malroz.com 613-548-3446 x22.
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Seth Dittman	York Region	Seth.Dittman@york.ca
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Amanda Huxter	CUA	ahuxter@covanta.com

Appendix D
Site Walkthrough Photos



Photo # 01 sign at site entrance stop



Photo # 02 looking west from Osborne Road to weigh scales, showing site perimeter fencing



Photo # 03 looking west from Osborne Road at southeast corner showing closed access



Photo # 04 looking south on Courtice Road showing sign at waste receiving access roadway



Photo # 05 looking south from Energy Drive at northeast corner of site showing monitoring wells



Photo # 06 electronic billboard at facility entrance showing site operations information



Photo # 07 looking southeast along internal access road towards visitor center



Photo # 08 looking east along the internal access road along the north of the facility



Photo # 09 looking southwest along the west side of the facility



Photo # 10 looking southwest towards stormwater management pond with spill response kit in foreground



Photo # 11 looking east showing stockpiled soils from stormwater management cleanout



Photo # 12 looking southwest showing access road entrance to site



2016-03-04 10:15

Photo # 13 looking south across the southeast corner storm water management pond



2016-03-04 10:16

Photo # 14 looking northeast showing visitor center and protected pine tree

Appendix E
Documents Available on the Project Website

**Appendix E
Documents Available on the Project Website**

Item #	Confirmed	DOCUMENT REQUIRED	REFERENCE DOCUMENT	SPECIFIC CONDITION/SECTION	DETAILED CONDITION/SECTION	COMMENTS	Web Link	Web Link - to specific PDF
Web 1	✓	Ambient Air Monitoring and Reporting Plan & Reports	EA	11.9	The proponent shall post the Ambient Air Monitoring and Reporting Plan and the results of the ambient air monitoring program on the proponent's web site for the undertaking upon submission of the plan or results of the program to the ministry.	Also required by CofA Condition 7. (4) (c).	https://www.durhamyorkwaste.ca/Documents/MonitoringPlansReports/AmbientAir/AmbientAirReports2015.aspx	https://www.durhamyorkwaste.ca/Assets/Documents/MonitoringPlansReports/AmbientAir/Reports/2015/Reports/AmbientAirReport_2015Q3.pdf
W 2	✓	Ambient Air Monitoring and Reporting Plan & Reports	CofA	7. (4) (c)	The Regions shall post the Ambient Air Monitoring and Reporting Plan and the results of the Ambient Air Monitoring program on the Owner's web site for the Facility in accordance with the requirements of the EA Approval and Condition 15.	Also required by EA Condition 11.9		
W 3	✓	Complaint Protocol	EA	7.4.c	Information on the Complaint Protocol required by Condition 6 of this Notice of Approval.	Complaint Protocol is also referenced in EA Conditions 6.2 and 6.3.		
W 4	✓	Complaint Protocol	EA	6.2	The Complaint Protocol shall be provided to the advisory committee for review prior to submission to the Director.	Required to be posted based on EA Condition 7.4.c, but otherwise does not specifically state that the plan must be posted the the website. Also referenced in EA Condition 6.3.	https://www.durhamyorkwaste.ca/Documents/FacilityManagementPlans/ComplaintInquiryLogs.aspx	https://www.durhamyorkwaste.ca/Assets/Documents/FacilityManagement/EFW_Complaint_Protocol.pdf
W 5	✓	Complaint Protocol	EA	6.3	The proponent shall submit the Complaint Protocol to the Director within one year from the date of approval or a minimum of 60 days prior to the start of construction, whichever is earlier.	Required to be posted based on EA Condition 7.4.c, but otherwise does not specifically state that the plan must be posted the the website. Also referenced in EA Condition 6.2.		
W 6	✓	Compliance Monitoring Program	EA	4.1	The proponent shall prepare and submit to the Director a Compliance Monitoring Program outlining how it will comply with conditions in the Notice of Approval and other commitments made in the environmental assessment.	Required to be posted based on EA Condition 7.4, but otherwise does not specifically state that the plan must be posted the the website	https://www.durhamyorkwaste.ca/Documents/FacilityManagementPlans/ComplianceMonitoring.aspx	https://www.durhamyorkwaste.ca/Assets/Documents/FacilityManagement/ComplianceMonitoring/Program/Compliance_Monitoring_Program.pdf
W 7	✓	Compliance Reports	EA	5.4	The proponent shall submit annual Compliance Reports until all conditions in this Notice of Approval and the commitments in the environmental assessment are satisfied.	Required to be posted based on EA Condition 7.4, but otherwise does not specifically state that the plan must be posted the the website. Compliance reports are also referenced in EA Condition 8.2.d	https://www.durhamyorkwaste.ca/Documents/FacilityManagementPlans/ComplianceMonitoring.aspx	https://www.durhamyorkwaste.ca/Assets/Documents/FacilityManagement/ComplianceMonitoring/AnnualReports/2015_Annual_Compliance_Monitoring_Report.pdf
W 8	✓	Compliance Reports	EA	8.2.d	Preparing an annual report about the advisory committee's activities to be submitted as part of the Compliance Reports required by Condition 5 of this Notice of Approval.	Required to be posted based on EA Condition 7.4, but otherwise does not specifically state that the plan must be posted the the website. Compliance reports are also referenced in EA Condition 5.4		
W 9	✓	Groundwater and Surface Water Monitoring Plan	CofA	16. (1) (g)	Groundwater and Surface Water Monitoring and Reporting Plan, prepared in accordance with the requirements of the EA Approval.	Also required by CofA Condition 7. (14) (c) and EA Condition 20.1.		
W 10	✓	Groundwater and Surface Water Monitoring Plan & Reports	EA	20.10.	Prior to the start of construction, the proponent shall identify any areas where the undertaking may affect groundwater or surface water. For those areas, the proponent shall prepare and implement, in consultation with the ministry's Central Region Office and to the satisfaction of the Regional Director, a Groundwater and Surface Water Monitoring Plan.	Also required by CofA Conditions 7. (14) (c) and 16. (1) (g).	https://www.durhamyorkwaste.ca/Documents/MonitoringPlansReports/GroundSurfaceWaterReports/Reports/Groundwater_Surface_Water_Monitoring_Plan.pdf	https://www.durhamyorkwaste.ca/Assets/Documents/MonitoringPlansReports/GroundSurfaceWaterReports/Reports/Groundwater_Surface_Water_Monitoring_Plan.pdf
W 11	✓	Groundwater and Surface Water Monitoring Plan & Reports	CofA	7. (14) (c)	The Regions shall post the Groundwater and Surface Water Monitoring Plan and the results of the Groundwater and Surface Water Monitoring program on the Owner's web site for the Facility in accordance with the requirements of the EA Approval and Condition 15.	Also required by CofA Condition 16. (1) (g) and EA Condition 20.1.		
W 12	✓	Multiple	EA	7.4	The proponent shall give notice of and provide information about the undertaking to interested members of the public and Aboriginal communities through an internet web site and by other means. Such information shall include:	This condition requires posting of multiple documents (no specific documents listed as part of this condition).	https://www.durhamyorkwaste.ca/Home/Home.aspx	
W 13	✓	Multiple	EA	7.4.a	Activities that are part of the undertaking, including monitoring activities;	This condition requires posting of multiple document (no specific documents listed as part of this condition).	https://www.durhamyorkwaste.ca/Home/Home.aspx	
W 14	✓	Multiple	EA	7.4.b	Reports and records related to the undertaking that are required to be submitted under this Notice of Approval or under any other ministry approvals that apply to the undertaking; and,	This condition requires posting of multiple documents (no specific documents listed as part of this condition).	https://www.durhamyorkwaste.ca/Home/Home.aspx	
W 15	✓	Multiple	CofA	16. (1)	The Owner shall, at all times, maintain documentation that describes the current operations of the Facility. The Owner shall post the documentation at the website for the undertaking and during regular business hours, the Owner shall make the following documents available for inspection at the Site by any interested member of the public, upon submission to the Ministry for review:	This condition does not specifically state which documents shall be posted to website, but interpretation suggests the documents outlined in CofA Conditions 16. (1) (a)-(g). Note: EA Conditions 16. (1) (a)-(c) are not applicable to the construction phase.	https://www.durhamyorkwaste.ca/Home/Home.aspx	
W 16	✓	Noise Monitoring and Reporting Plan	EA	19.4	The proponent shall post the Noise Monitoring and Reporting Plan and on the proponent's web site for the undertaking following submission of the plan to the Director.	Also required by CofA Condition 16. (1) (f)	https://www.durhamyorkwaste.ca/Documents/MonitoringPlansReports/Noise.aspx	http://durhamyorkwaste.ca/pdfs/project/noise/2011_09.15_DYECNoiseMP.pdf
W 17	✓	Noise Monitoring and Reporting Plan	CofA	16. (1) (f)	Noise Monitoring and Reporting Plan, prepared in accordance with the requirements of the EA Approval; and	Also required by EA Condition 19.4		

W 18	✓	Odour Management and Mitigation Plan	EA	18.2	The proponent shall submit the Odour Management and Mitigation Plan to the Regional Director a minimum of six months prior to the start of construction or at such other time as agreed to in writing by the Regional Director.	Required to be posted based on EA Condition 7.4, but otherwise does not specifically state that the plan must be posted the the website. Also required by CofA Condition 16. (1) (e).	https://www.durhamyorkwaste.ca/Documents/MonitoringPlansReports/Odour.aspx	https://www.durhamyorkwaste.ca/Assets/Documents/MonitoringPlansReports/Odour/Plan/Odour_Management_Mitigation_Plan.pdf
W 19	✓	Odour Management and Mitigation Plan	CofA	16. (1) (e)	Odour Management and Mitigation Plan, prepared in accordance with the requirements of the EA Approval;	Also required by EA Condition 18.2		
W 20	✓	Terms of Reference for the Advisory Committee (EFWAC)	EA	8.11	The proponent shall submit the advisory committee's Terms of Reference to the Director and Regional Director.	Required to be posted based on EA Condition 7.4, but otherwise does not specifically state that the plan must be posted the the website	http://durhamyorkwaste.ca/project/project_doc.htm	http://durhamyorkwaste.ca/pdfs/project/EFWMACTermsOfReference.pdf
W 21	✓	Waste Diversion Program Monitoring Plan & Annual Reports	EA	10.5	The proponent shall post the Waste Diversion Program Monitoring Plan and the annual reports required on the proponent's web site for the undertaking.	Waste Diversion Monitoring Plan	https://www.durhamyorkwaste.ca/Documents/FacilityManagementPlans/WasteDiversion.aspx	
W 22	✓	Waste Diversion Program Monitoring Plan & Annual Reports	EA	10.5	The proponent shall post the Waste Diversion Program Monitoring Plan and the annual reports required on the proponent's web site for the undertaking.	Durham Region Annual Report 2014	https://www.durhamyorkwaste.ca/Documents/FacilityManagementPlans/WasteDiversionReports/WasteDiversionReports2014.aspx	https://www.durhamyorkwaste.ca/Assets/Documents/FacilityManagement/WasteDiversion/Reports/2014/2014_Durham_Region_Waste_Diversion_Report.pdf
	Durham Region Annual Report 2013					https://www.durhamyorkwaste.ca/Documents/FacilityManagementPlans/WasteDiversionReports/WasteDiversionReports2013.aspx	https://www.durhamyorkwaste.ca/Assets/Documents/FacilityManagement/WasteDiversion/Reports/2013/2013_Durham_Region_Waste_Diversion_Report.pdf	
	Durham Region Annual Report 2012					https://www.durhamyorkwaste.ca/Documents/FacilityManagementPlans/WasteDiversionReports/WasteDiversionReports2012.aspx	https://www.durhamyorkwaste.ca/Assets/Documents/FacilityManagement/WasteDiversion/Reports/2012/2012_Durham_Region_Waste_Diversion_Report.pdf	
	Durham Region Annual Report 2011					http://durhamyorkwaste.ca/project/project_doc.htm	http://durhamyorkwaste.ca/pdfs/project/waste_diversion/2012.11.01_Durham_WMS2011AnnualReport.pdf	
	Durham Region Annual Report 2010					http://durhamyorkwaste.ca/project/project_doc.htm	http://durhamyorkwaste.ca/pdfs/project/waste_diversion/2011.10.21_DurhamRegionWasteManagementAnnualReport2010.pdf	
W 23	✓	Waste Diversion Program Monitoring Plan & Annual Reports	EA	10.5	The proponent shall post the Waste Diversion Program Monitoring Plan and the annual reports required on the proponent's web site for the undertaking.	York Region Annual Report 2014	https://www.durhamyorkwaste.ca/Documents/FacilityManagementPlans/WasteDiversionReports/WasteDiversionReports2014.aspx	https://www.durhamyorkwaste.ca/Assets/Documents/FacilityManagement/WasteDiversion/Reports/2014/2014_York_Region_Waste_Diversion_Report.pdf
	York Region Annual Report 2013					https://www.durhamyorkwaste.ca/Documents/FacilityManagementPlans/WasteDiversionReports/WasteDiversionReports2013.aspx	https://www.durhamyorkwaste.ca/Assets/Documents/FacilityManagement/WasteDiversion/Reports/2013/2013_York_Region_Waste_Diversion_Report.pdf	
	York Region Annual Report 2012					https://www.durhamyorkwaste.ca/Documents/FacilityManagementPlans/WasteDiversionReports/WasteDiversionReports2012.aspx	https://www.durhamyorkwaste.ca/Assets/Documents/FacilityManagement/WasteDiversion/Reports/2012/2012_York_Region_Waste_Diversion_Report.pdf	
	York Region Annual Report 2011					http://durhamyorkwaste.ca/project/project_doc.htm	http://durhamyorkwaste.ca/pdfs/project/waste_diversion/2012.11.01_REVISED_York_WMS2011AnnualReport.pdf	
	York Region Annual Report 2010					http://durhamyorkwaste.ca/project/project_doc.htm	http://durhamyorkwaste.ca/pdfs/project/waste_diversion/2011.10.21_YorkRegion2010WasteDiversionReport_PAGE.pdf	
W24	✓	Continuous Air Emissions Monitoring	EA	12.7	The proponent shall post the reports of the air emissions monitoring systems on the proponent's web site for the undertaking		https://www.durhamyorkwaste.ca/EmissionsData/EmissionsData.aspx	

Appendix F
Acceptance Summary Checklist

Appendix F Acceptance Phase Audit Checklist

Auditor Checklist		Documentation Required	Summary of Requirement	Reference Document	Relevant Section of Reference Document	Auditor Comments
Item	Current Audit (Observed / Reviewed)					
1	√	30-Day Reliability Test	During this test the Facility will be operated at a minimum of 95% of Demonstrated Design Steam Flow. The Demonstrated Design Steam Flow shall be established during the Energy Recovery Tests and will be the average steam flow when burning 436 tons per day of MSW with an HHV of 13 MJ/kg. During the 30-day test period, the 4-hour steam flow averages used to demonstrate compliance will be limited to the lesser of i) the actual 4-hour steam flow averages or ii) 110% of the highest 4-hour average steam flow measured during the Energy Recovery Tests.	Acceptance Phase Audit Plan	1.5	Covanta Acceptance Test Report (CATR), November 2015 Executive summary 95% flow - page 3 / row 1 DYEC acceptance test report dated November 2015
2	√		In addition, the availability during the 30-day Reliability Test, defined as the ratio of the number of boiler-hours the processing lines are on-line to process waste versus the number of hours during the period (e.g. 30 days x 24 hours/day x 2 processing lines), shall not be below an availability of 95%.	Acceptance Phase Audit Plan	1.5	CATR 99.9% availability reported
3	√		The objective of this test is to demonstrate compliance of the facility with the Throughput Guarantees in Exhibit 2 to Appendix 19 during a five (5) day (120-hour) test period. The Facility will be tested for one consecutive 120-hour period, during which the Facility will process at least 2,130 tonnes (and no less than 1,000 tonnes per unit) of Reference Waste.	Acceptance Phase Audit Plan	1.6	2257 tonnes processed Acceptance Test Report Page 3 / Row 3 Tab 3 5-Day Through put / Residue Quality / Quantity Test
4	√		The amount of waste processed during the Throughput Capacity Test shall be adjusted for the measured waste HHV in accordance with the table provided in Exhibit 2 to Appendix 19. The waste HHV shall be determined during the Energy Recovery Tests using a correlation developed from boiler calorimetry tests taken at the Facility. In the event the measured waste HHV lies between two data points in the table in Exhibit 2 to Appendix 19, a linear interpolation will be performed to determine the waste throughput.	Acceptance Phase Audit Plan	1.6	CATR tab 3 / page 9
5	√		If the heating value of the waste burned is determined to have an HHV below 11,000 kJ/kg, the waste supplied shall be considered outside of the facility acceptable range and the test will then be repeated at the Owner's expense.	Acceptance Phase Audit Plan	1.6	Not applicable (see #4)
6	√		The Facility shall not have passed the Throughput Capacity Test, even though the tonnage processed meets the capacity requirements stated above, if the facility fails the Residue Quality Test.	Acceptance Phase Audit Plan	1.6	Tab 3 / page 10 and tech memo December 17, 2015

Auditor Checklist		Documentation Required	Summary of Requirement	Reference Document	Relevant Section of Reference Document	Auditor Comments
Item	Current Audit (Observed / Reviewed)					
7	√	Energy Recovery Test	The objective of the Energy Recovery Test is to demonstrate the ability of the Facility to generate electricity at a specified throughput of waste (at a Reference Waste HHV) for the purpose of meeting the Electrical Generation Guarantee. Energy Recovery Tests shall consist of a minimum of three (3) minimum 8-hour electric generation tests performed during the 5-day Throughput Capacity Test period. During the test all Facility electrical power requirements shall be supplied by the Facility generator. The tests should include using boiler as a calorimeter (BAC) tests to determine the actual HHV of the waste to correct the kwh/tonne of reference fuel combusted. The basic formulas shall include:	Acceptance Phase Audit Plan	1.7	CATR tab 4 / 8 hour Energy Recovery Test 8 hour Residue Quality Test (page 2)
8	√		1) Fuel Heat Input = Heat Output (Steam) + Losses – Heat Credits	Acceptance Phase Audit Plan	1.7	CATR tab 4 / page 9
9	√		2) HHV of Burned Waste = Fuel Heat Input / kgs of Burned Waste	Acceptance Phase Audit Plan	1.7	CATR tab 4 / page 9
10	√		3) Boiler Efficiency = Heat Output(Steam) / Heat Input	Acceptance Phase Audit Plan	1.7	CATR tab 4 / page 8 and page 9
11	√		4) Steaming Rate = kgs of Steam / kgs of Burned Waste	Acceptance Phase Audit Plan	1.7	CATR tab 4 / page 8
12	√		5) Electric Generation Rate = Net kWh / kgs of Burned Waste	Acceptance Phase Audit Plan	1.7	CATR tab 4 / page 11
13	√		Each Energy Recovery Test shall be a consecutive 8-hour period (minimum) for each unit. Pertinent test data shall be recorded at appropriate intervals in accordance with the test code. More specifically, the readings taken and recorded during the test will include, but will not necessarily be limited to, the following:	Acceptance Phase Audit Plan	1.7	CATR tab 4 / table 1 and 2
14	√		Waste feed rate;	Acceptance Phase Audit Plan	1.7	CATR tab 4 / table 3 page 5
15	√		Boiler outlet steam – flow rates, temperatures, and pressures;	Acceptance Phase Audit Plan	1.7	CATR tab 4 table 1 and 2
16	√		Feedwater – flow rates, temperatures, and pressures;	Acceptance Phase Audit Plan	1.7	CATR tab 4 table 1 and 2
17	√		Attemperator – water flow rates, temperatures and pressures;	Acceptance Phase Audit Plan	1.7	CATR tab 4 table 1 and 2
18	√		Boiler drum pressures;	Acceptance Phase Audit Plan	1.7	CATR tab 4 / page 1 table 1

Auditor Checklist		Documentation Required	Summary of Requirement	Reference Document	Relevant Section of Reference Document	Auditor Comments
Item	Current Audit (Observed / Reviewed)					
19	√		Flue gas – flow rates and temperatures at the economizer outlet;	Acceptance Phase Audit Plan	1.7	CATR tab 4 / table 1
20	√		Carbon dioxide, oxygen, carbon monoxide, and moisture in the flue gas at the outlet of the economizer;	Acceptance Phase Audit Plan	1.7	CATR table 1 number 21, 22, 23
21	√		Residues and fly ash quantities and unburned carbon content;	Acceptance Phase Audit Plan	1.7	CATR tab 1 / page 4 Tab 4 / table 1 number 29 and 35
22	√		Ambient wet/dry bulb temperatures, barometric pressures;	Acceptance Phase Audit Plan	1.7	CATR tab 4 / table 1 Number 12, 13, 20
23	√		Residue quench water quantities (if applicable);	Acceptance Phase Audit Plan	1.7	Not applicable
24	√		Moisture in Residue;	Acceptance Phase Audit Plan	1.7	CATR tab 4 / tables 1 number 36
25	√		Boiler blowdown rate and temperature;	Acceptance Phase Audit Plan	1.7	CATR tab 3 / page 8
26	√		Turbine generator output;	Acceptance Phase Audit Plan	1.7	CATR tab 4 / tables 1 and 2
27	√		In-house power consumption;	Acceptance Phase Audit Plan	1.7	CATR tab 4 / table 1 calculations from delta
28	√		Actual Net Electrical Output to the utility grid;	Acceptance Phase Audit Plan	1.7	CATR tab 4 / table 1 number 42
29	√		Steam delivered to the Customers (if applicable) In normal operating or waste based operating mode In standby mode; and	Acceptance Phase Audit Plan	1.7	Not applicable
30	√		Steam measured at inlet of the turbine (waste based operations only).	Acceptance Phase Audit Plan	1.7	CATR tab 4 / table 2 "Turbine Throttle Pressure"

Auditor Checklist		Documentation Required	Summary of Requirement	Reference Document	Relevant Section of Reference Document	Auditor Comments
Item	Current Audit (Observed / Reviewed)					
31	√	Residue Tests	The Residue (e.g. bottom ash and grate siftings only) moisture content and percent combustible matter shall be determined during the Residue Quality Test. The Residue Quality Test will be performed during the five (5) day Throughput Capacity Test and on more frequent intervals during the Energy Recovery Tests. The purpose of this test is to ensure the quality of the bottom ash from the combustion units meet the Performance Guarantees for moisture content of less than or equal to 25%, and unburned carbon of less than or equal to 3%. The Residue samples shall be collected from the combined bottom ash and siftings generated by each combustion train in accordance with ASME PTC 34, the CofA, and MOE requirements. The sampling and testing procedures for the Residue Quality Test shall be included in the Final Acceptance Test Plan, which shall be submitted to the Owner and MOE at least sixty (60) days prior to the start of the Acceptance Test for approval.	Acceptance Phase Audit Plan	1.8.1	CATR tab 4 / table 1 number 36 and 39 Final acceptance plan Fall October 2014
32	√		The purpose of the Residue Quantity Test is to ensure the Facility meets the Exhibit 2 to Appendix 19 Performance Guarantee for the total Residue (including bottom ash, grate siftings, boiler and air pollution control fly ash) weighing not more than 30% of the Tonnage combusted to produce such Residue, adjusted for the measured waste HHV in accordance with Table A10-2. The Residue Quantity Test shall be performed during the 30-day Reliability Test and the 5-day Throughput Capacity Test. The main weigh scale and other weighting devices shall be used to determine quantity of residues generated	Acceptance Phase Audit Plan	1.8.2	CATR Residue Quantity Test failed Addressed in December 17, 2015, HDR memo table 1 summary resolved contractually
33	√	Ferrous Metals Recovery Test	The Ferrous Recovery Test shall be conducted on three (3) separate days during the 30 day Reliability Test. Each test shall be a minimum of 8 hours in duration. Residue Samples shall be collected at one-half (1/2) hour intervals. The unrecovered ferrous ratio shall be sampled downstream of the magnetic ferrous separator. The oversize (or grizzly scalper) ferrous shall also be collected, weighed and added to the process ferrous extracted from the magnetic separator. The total Residue weight collected during the test shall also be obtained during the test period. Compliance will be determined by comparing the average of the three (3) tests to the Metals Recovery Guarantee for ferrous metals in Exhibit 2 to Appendix 19.	Acceptance Phase Audit Plan	1.9.1	CATR tab 5 metals recovery test mostly collected at 1/2 hour intervals with exception on day 1 Recovery of ferrous metals Table 1 >80% (page 9)

Auditor Checklist		Documentation Required	Summary of Requirement	Reference Document	Relevant Section of Reference Document	Auditor Comments
Item	Current Audit (Observed / Reviewed)					
34	√	Non-Ferrous Metals Recovery Test	The Non-Ferrous Recovery Test shall be conducted on three (3) separate days during the 30 day Reliability Test. Each test day shall be a minimum of 8-hours in duration. Residue samples shall be collected at one-half (1/2) hour intervals. The unrecovered non-ferrous ratio shall be sampled downstream of the eddy current or non-ferrous metal separator. The oversize (or grizzly scalper) non-ferrous metals shall also be collected, weighed and added to the process non-ferrous extracted from the eddy current separator. The total Residue weight collected during the test shall also be obtained during the test period. Compliance will be determined by comparing the average of the three (3) tests to the Metals Recovery Guarantee for non-ferrous metals in Exhibit 2 to Appendix 19.	Acceptance Phase Audit Plan	1.9.2	Tab 5 October 7, one 45 minute interval (9:15-10:00)
35	√	Environmental Compliance Test	Environmental Compliance Test	Acceptance Phase Audit Plan	1.10	Tab 6 / tab 7 Ortech (3rd party tester)
36	√	Acceptance Test Report	After completion of the Acceptance Test, a report containing the information related to the Acceptance Test (the "Acceptance Test Report") shall be prepared by the DBO Contractor and, within 60 calendar days, 10 copies shall be submitted to the Owner. The Acceptance Test Report shall contain, but not be limited to, the following information and certifications:	Acceptance Phase Audit Plan	1.11	DYEC CATR acceptance test report dated November 2015
37	√		Copies of all data and log sheets.	Acceptance Phase Audit Plan	1.11	DYEC CATR acceptance test report dated November 2015
38	√		Copies of all laboratory analyses.	Acceptance Phase Audit Plan	1.11	DYEC CATR acceptance test report dated November 2015
39	√		A listing of all federal, state, county, and other regulatory agency requirements and the respective test results indicating conformance and compliance or lack of conformance/compliance with these requirements.	Acceptance Phase Audit Plan	1.11	DYEC acceptance test report dated November 2015 and HDR technical memorandum Dec 17, 2015
40	√		All necessary certificates relating to calibrations, testing, evaluation, analyses, and performance required pursuant to the Acceptance Test Plan.	Acceptance Phase Audit Plan	1.11	DYEC acceptance test report dated November 2015 and HDR technical memorandum Dec 17, 2015
41	√		A summary of test results supported by calculations demonstrating the ability to meet the requirements relating to the Throughput Performance Capacity and Energy Recovery Tests.	Acceptance Phase Audit Plan	1.11	DYEC CATR acceptance November 2015
42	√		A stand alone Emission Test Report prepared in accordance with the Certificate of Approval and MOE requirements.	Acceptance Phase Audit Plan	1.11	CATR tab 6 and 7
43	√		A stand alone Residue Test Report prepared in accordance with the Certificate of Approval and MOE requirements.	Acceptance Phase Audit Plan	1.11	CATR tab 1

Auditor Checklist		Documentation Required	Summary of Requirement	Reference Document	Relevant Section of Reference Document	Auditor Comments
Item	Current Audit (Observed / Reviewed)					
44	√		A certification signed by an officer of the DBO Contractor stating that the Acceptance Tests were conducted in accordance with the Acceptance Test Plan; the requirements of the Acceptance Test were satisfied or the extent to which they were not satisfied; and the Acceptance Test demonstrated that the Facility met each of the Performance Guarantees specified in the Contract Documents.	Acceptance Phase Audit Plan	1.11	DYEC Covanta letter dated November 24, 2015
45	√	Facility Acceptance Test Criteria	The Facility shall be deemed to have passed the Acceptance Test Criteria if the Acceptance Test demonstrates that, each of the following criteria has been met or exceeded:	Acceptance Phase Audit Plan	1.12	CATR data and HDR December 2015 letter reviewing components of acceptance test on behalf of the owners.
46	√		The 30-day Reliability Test has demonstrated during the test period that the Facility has operated at a minimum of 95% of the Demonstrated Design Steam Flow with a Facility availability greater than 95%.	Acceptance Phase Audit Plan	1.12	See item 2.
47	√		The Throughput Capacity Guarantee Test has demonstrated the ability of the Facility to process waste in accordance with the Throughput Capacity Guarantee in Exhibit 2 to Appendix 19 during a consecutive five (5)-day test period , and that the amount of Reference waste (in tonnes) processed during the testing period is 2,130 tonnes (and no less than 1,000 tonnes per unit).	Acceptance Phase Audit Plan	1.12	See item 3
48	√		The Energy Recovery Test has demonstrated that the average net electrical production rate (in kWh/tonne) is not less than the Electrical Production Guarantee identified in Exhibit 2 to Appendix 19.	Acceptance Phase Audit Plan	1.12	See items 7, 12 and 13
49	√		The Residue Quality Guarantee has demonstrated that the unburned carbon content is less than 3%, and moisture content is less than 25%.	Acceptance Phase Audit Plan	1.12	See items 21 and 31
50	√		The Residue Quantity Guarantee is demonstrated if the quantity of Residue generated (in tonnes) is less than or equal to 30% of Waste processed(in tonnes), adjusted for the measured waste HHV in accordance with Table A10-2. Residue to be Residue from the Facility, excluding ferrous and non-ferrous materials recovered, but including any returned or disposed ash resulting from the ferrous and non ferrous cleanup-The Metals Recovery Guarantee is demonstrated if the measured recovery efficiency percentages for ferrous metals and for non-ferrous metals comply with those identified by the DBO Contractor in Exhibit 2 to Appendix 19.	Acceptance Phase Audit Plan	1.12	See items 21 and 32
51	√		The Environmental Compliance Guarantee is demonstrated if the results of the air emissions, noise, and general test requirements are in compliance with the CofA.	Acceptance Phase Audit Plan	1.12	See item 42

Auditor Checklist		Documentation Required	Summary of Requirement	Reference Document	Relevant Section of Reference Document	Auditor Comments
Item	Current Audit (Observed / Reviewed)					
52	√	Minimum Acceptance Criteria	The Facility shall be deemed to have satisfied the Minimum Acceptance Criteria if the minimum criteria for throughput capacity (90% compliance with Throughput Capacity Guarantee), for energy (95% compliance with the Electrical Generation Rate Guarantee), for metals recovery (90% compliance with the Metals Recovery Guarantee, and for environmental compliance (100% compliance with the Environmental Compliance Guarantees) have been demonstrated.	Acceptance Phase Audit Plan	1.13	CATR data and HDR December 2015 letter reviewing components of acceptance test on behalf of the owners.