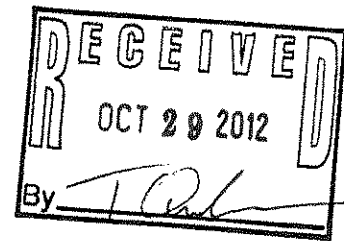


DEQ Air Quality Inspection Report



General Information

Facility Information:

Facility Name	ESCO Corporation
Site Address	2141 NW 25 th Avenue, Portland (Main Plant) 2211 NW Brewer, Portland (Plant 3)
County	Multnomah
Permit Number	26-2068
Permit Type (ACDP, ACDP-SM80, Title V)	Title V

Inspection Information:

Inspection Date/Time:		10:00 am Sept. 11 and 10:00 am Sept. 12, 2012
Inspection Type:	FCE/PCE (specify)	FCE
	State inspection	Y
	Announced	Y
	Unannounced	
Reason for inspection:	Regularly scheduled inspection	Y
	Complaint follow-up	
	Other (specify)	
Inspector(s) (name, title, agency)	George Davis, Environmental Engineer, DEQ	
DEQ Air Quality Manager/Region	Uri Papish, Manager, NWR/AQ <i>Uri Papish</i>	
Facility Representative (name, title, phone #)	Travis Quarles, Environmental Specialist 503-778-6493	

FCE INSPECTION REPORT CHECKLIST

Action	Completed (yes/no)	Comments
Current reports reviewed	y	
Excess emissions reviewed	y	
Enforcement history reviewed	y	
Applicable requirements reviewed	y	
Facility records reviewed on-site	y	
Facility observations completed	y	
Compliance/technical assistance provided	y	
Findings discussed on-site	y	

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Significant Emission Devices/Activities/Control Devices

Emission Device or Activity Description	Control Device Description
Electric Arc Furnaces, Main Plant	Baghouse
Argon-Oxygen Decarburization, Main Plant	Baghouse
Pouring, cooling, shakeout (PCS), Main Plant, Doghouse	Baghouses (2)
Electric Arc Furnace, Plant 3	Baghouses (2)
Pouring, cooling, shakeout, Plant 3	Baghouse
Miscellaneous activities (mold making, finishing, etc. at both plants)	Some controlled, baghouses; some uncontrolled

Notice of Intent to Construct Approvals (since last inspection)

Date	Description
2/11/11	Installation of baghouse snorkels to existing baghouse, lower finishing area
2/11/11	Installation of temporary dust filtration system for air arc station, lower finishing area
2/23/2011	Tie in LFA air arc station to baghouse
5/11/2011	Install Bay 2 Air Arc dust collector
2/7/2012	Install dust collector
2/22/2012	Install R&D vacuum furnace
8/3/2012	Install dust collector

Previous Inspection Date: FCE on July 21, 2010.

PRE-INSPECTION REVIEW

Current Issues

INSPECTION WALK-THROUGH AND OBSERVATIONS

Both the Main Plant and Plant 3 were walked-through during the inspection. Scrap metal storage areas were checked and no prohibited materials were seen. Emission control devices were in use in all active process areas and no problems were noted. Doors near EAFs and AOD were closed. No fugitive visible emissions were seen. One EAF charge was observed and no dump-back occurred before the steel was sent to the pouring area.

DEQ Air Quality Inspection Report

Reports^a (since last inspection)

a. Types of reports include annual reports, semi-annual compliance certifications (SACC), source test reports both for compliance and emission factor verification, and other compliance reports (specify).

Type	Period	Date Received	Deviations (yes/no)	Comments
annual	2010 2 nd half	2/3/2011	no	
semi-annual	2011 1 st half	7/19/11	Deviations reported, but not out of compliance, see note to right	ESCO reported intermittent compliance with conditions 10, 14 and G3 due to possible but unproven opacity exceedances from air arc cutting in the LFA. However, there was no actual demonstration of an exceedance, so not actually out of compliance.
annual	2011 2 nd half	2/7/12	no	
semi-annual	2012 1 st half	7/30/12	yes	Intermittent compliance with condition 58 of permit issued March 1, 2012, involving taking Plant 3 thermal sand reclaim coarse fraction separator out of service due to high wear. A Warning Letter, WL-POR-AQ-2012-0065 was sent on May 29, 2012. Has been corrected.

NESHAP Reports

Type	Period	Date Received	Deviations (yes/no)	Comments
ZZZZZ semi-annual compliance report	2 nd half 2010	1/18/2011	In compliance	
ZZZZZ semi-annual compliance report	1 st half 2011	7/19/11	In compliance	
ZZZZZ semi-annual compliance report	2 nd half 2011	1/30/12	In compliance	
ZZZZZ semi-annual compliance report	1 st half 2012	7/30/12	In compliance	

DEQ Air Quality Inspection Report

Condition 21 pollution prevention Reports

Type	Period	Date Received	Deviations (yes/no)	Comments
Annual	2011	3/15/12	In compliance	

Source Test Reports (Since last inspection report)

Pollutant	Time Period	Test Date	In Compliance?	Comments
none required during this period				

Excess Emissions (since last inspection)

Date	Emission Device/Activity	Excess Emissions (magnitude & duration)	Enforcement Action Taken (yes/no)	Resolution
none				

Enforcement History (since last inspection):

Date	Enforcement Action (WL or PEN citation and description)	Resolution
5/29/2012	WL-POR-AQ-2012-0065 for intermittent compliance with condition 58 of permit issued March 1, 2012, involving taking Plant 3 thermal sand reclaim coarse fraction separator out of service due to high wear.	Has been corrected, coarse fraction separator is in service.

Complaints (since last inspection):

Date	Description	Resolution
Multiple dates	78 complaints received since May 1, 2012	ESCO is under a Best Work Practices Agreement which requires improvements intended to reduce odors and dust. Conditions 48 through 65 of the permit constitute the Best Work Practices Agreement.

DEQ Air Quality Inspection Report

PERMIT REVIEW AND ON-SITE OBSERVATIONS

Condition Number	In compliance	Out of compliance	Other	Summary of Requirement	Observations/comments (records review, monitoring data, process parameters, control device parameters, etc)
1			x	Administrative condition	
2			x	Administrative condition	
3			x	List of Emissions Units	
4	x			Permittee must not cause a nuisance.	
5	x			Do not deposit PM > 250 microns on other real property	
6	x			Mon: Complaint investigation and recordkeeping	Permittee conducts complaint investigations as required and maintains the required records. Spot-checked complaints, no problems noted.
7			x	Permittee is exempt from ECO	
8			x	Accidental release prevention	
9			x	Source-specific RACT, 0% control.	
10	x			Prevent PM from becoming airborne.	No problems observed during walk-throughs.
11	x			Investigate and take corrective action if PM leaves plant site.	No incidences requiring corrective action have occurred.
12	x			Opacity limit, shall not equal or exceed 20% for more than 30 seconds in any one hour, all EUs except natural gas combustion.	No visible emissions from stacks or other openings observed.
13	x			Opacity limit, shall not equal or exceed 20% for more than 3 minutes in any one hour.	No visible emissions from stacks or other openings observed.
14	x			Take corrective action to reduce visible emissions from baghouses.	No incidences requiring corrective action have occurred.
15	x			Subpart ZZZZZ: Fugitive emission opacity limit, 20% or higher, 6 minute average.	No visible emissions from fugitive sources observed.

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Condition Number	In compliance	Out of compliance	Other	Summary of Requirement	Observations/comments (records review, monitoring data, process parameters, control device parameters, etc)
16	x			Subpart ZZZZZZ Mon: One 30 minute VE survey per month	Reviewed survey records; records complete, all required surveys done.
17	x			PM limit, 0.1 gr/dscf, all EUs except natural gas combustion.	
18	x			Process weight rule	
19	x			Take corrective action to restore normal operation to any listed baghouse if pressure drop is in corrective action range.	No incidences requiring corrective action have occurred.
20	x			CAM requirements for baghouses, monitor pressure drop.	Pressure drop is monitoring as required, records available and spot-checked.
21	x			Subpart ZZZZZZ: Limit of 0.8 lb PM/TMM or 0.06 lb metal HAP/TMM from metal melting furnaces	Initial compliance test indicates compliance with the limit.
22			x	Subpart ZZZZZZ mon: Source test every 5 years	Pending. Source test required no later than July 2, 2016.
23	x			Operate the emissions control system for a process whenever the process is operating	On May 16, 2012, the Slinger Bay Sand Bin Dust Collector (301290) was found not operating while sand transporter operating. Dust collector was manually started. Investigation found that a relay that starts the dust collector when the sand transporter is started had malfunction. Incident is considered a malfunction, not a violation of condition 23.
24	x			Operate listed emission control devices in accordance with Air Emission Control Device Operating Plan.	ESCO is installing/upgrading interlock systems to ensure that production processes cannot operate without associated emissions control system being in operation. Air Emission Control Device Operating Plan has been submitted to DEQ for review and approval. ESCO is operating according to the plan until DEQ comments are received.
25	x			Keep Door H to P3 cooling room closed except when in use.	Door H was closed during walk-through except when in use.

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Condition Number	In compliance	Out of compliance	Other	Summary of Requirement	Observations/comments (records review, monitoring data, process parameters, control device parameters, etc)
26	x			Mon: Monthly and semi-annual inspections of listed emission control systems.	Inspection logs reviewed. All inspections carried out as required. Semi-annual inspections are done by maintenance staff; maintenance work orders were spot-checked. Incident on May 16, 2012 (see condition 23, above) reported as required.
27			x	Subpart ZZZZZ: Monitor metal melting furnace baghouses either by inspection or by using bag leak detection system.	ESCO currently monitors by inspection.
28	x			Subpart ZZZZZ: Operate capture and collection system for metal melting furnaces.	All metal melting furnaces subject to the rule are equipped with capture and collection systems as required, systems were in use during the walk-through.
29	x			Subpart ZZZZZ: Operate in accordance with O&M plan.	O&M plan is part of Air Emission Control Device Operating Plan, which has been submitted to DEQ for review and approval. ESCO is operating according to the plan until DEQ comments are received.
30	x			Subpart ZZZZZ: In the event of exceedance of a Subpart ZZZZZ limit, restore operation to normal manner as expeditiously as possible.	No exceedances of Subpart ZZZZZ limits have occurred.
31	x			Subpart ZZZZZ: Keep records of exceedances and corrective actions taken	No exceedances of Subpart ZZZZZ limits have occurred.
32	x			Subpart ZZZZZ: Inspect baghouses on metal melting furnaces monthly and semi-annually for leaks and structural integrity.	Monthly and semi-annual inspections are done as required, see condition 26.
33			x	Subpart ZZZZZ: Bag leak detection system requirements if bag leak detection system installed for ZZZZZ compliance.	Bag leak detection system is not used.

DEQ Air Quality Inspection Report

Condition Number	In compliance	Out of compliance	Other	Summary of Requirement	Observations/comments (records review, monitoring data, process parameters, control device parameters, etc)
34			x	Subpart ZZZZZZ: Corrective action if bag leak detection system alarms if bag leak detection system installed for ZZZZZZ compliance.	Bag leak detection system is not used.
35			x	Subpart ZZZZZZ mon: recordkeeping for bag leak detection system if bag leak detection system installed for ZZZZZZ compliance.	Bag leak detection system is not used.
36	x			Subpart ZZZZZZ : repair defect or deficiency in capture system on metal melting furnaces as soon as practicable.	No repairs have been necessary.
37	x			Subpart ZZZZZZ mon: monthly inspections of capture system on metal melting furnaces.	Monthly inspections are done as required, see condition 26.
38	x			Subpart ZZZZZZ: develop and implement SSM plan for metal melting furnaces.	SSM plan has been developed and submitted to DEQ for review and approval.
39	x			Subpart ZZZZZZ: scrap metal requirements.	Copies of scrap material specifications are kept onsite and are provided to suppliers. Scrap piles were checked during walk-through and no prohibited materials were seen.
40	x			Subpart ZZZZZZ mon: scrap metal recordkeeping.	The required records are kept.
41	x			Subpart ZZZZZZ: use no methanol in furfuryl alcohol warm box mold or core making line.	ESCO does not use warm box mold or core making.
42	x			Mon: keep records of all binders used	Binder records spot-checked, required records are kept.
43	x			Surface Coating RACT VOC limit	Permittee uses RACT compliant paints

DEQ Air Quality Inspection Report

Condition Number	In compliance	Out of compliance	Other	Summary of Requirement	Observations/comments (records review, monitoring data, process parameters, control device parameters, etc)
44	x			Mon for Surface Coating RACT	Permittee monitorings for RACT compliance as required.
45			x	Insignificant Activities	
46	x			Annual pollution prevention report, due March 15	Report is submitted as required.
47	x			Pb limit of 0.1 tons per year	PSEL monitoring indicates compliance with this limit.
48			x	BWPA terms	
49			x	BWPA: Install doghouse baghouses by 12/31/2013	Pending
50	x			BWPA: Add Lower Finishing Air Arc Cutting control	Completed.
51	x			BWPA: Add Upper Finishing Air Arc Cutting control	Completed.
52	x			BWPA: Seal leaks on P3 PCS, inspect annually	Completed. Inspections done more frequently than required. No problems noted during walk-through
53			x	BWPA: Control phenol emissions from P3 by 3/31/2015	Pending
54	x			BWPA: Continue alternative binder studies, report in annual PP report, condition 46.	Studies conducted as required and reports submitted as required.
55			x	BWPA: Install bag leak detection on EAF and AOD baghouses by 12/31/2013	Pending
56	x			BWPA: Modify operational specs to limit door openings to improve EAF and AOD capture	Completed. Doors were closed during walkthrough except when in use.
57			x	BWPA: Add/improve EAF operations that affect capture by 12/31/2012.	Pending
58	x			BWPA: Install coarse fraction separator on thermal sand reclaim.	Completed. Coarse fraction separator (cyclone) has had high wear problems but ceramic lining has improved reliability.
59	x			BWPA: Identify and implement changes to reduce emissions at Main Plant dump back and transfer points by 12/31/2012.	Frequency of dump back operations has been significantly reduced.

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Condition Number	In compliance	Out of compliance	Other	Summary of Requirement	Observations/comments (records review, monitoring data, process parameters, control device parameters, etc)
60	x			BWPA: Identify and implement changes to reduce emissions at Plant 3 dump back and transfer points by 12/31/2012.	Frequency of dump back operations has been significantly reduced.
61			x	BWPA: Conduct study on thermal sand reclaim operating temperature by 12/31/2012.	Pending.
62			x	BWPA: Modify operations at AOD to improve capture by 3/31/2015.	Pending.
63	x			BWPA: Ensure operators use control equipment at workbenches in finishing.	Completed. Control equipment was in use during walk-through.
64			x	BWPA: Explanatory note	No requirements
65			x	BWPA: Perform engineering study on capture and control in slinger bay, or propose different study, subject to approval by DEQ and NAC, by 4/30/2017	Pending.
66	x			PSELS	Annual and semi-annual reports indicate compliance with PSELS.
67	x			HAP Synthetic Minor Limits	Annual and semi-annual reports indicate compliance with HAP limits.
68			x	Procedures for revising emission factors	Procedures have not been needed.
69	x			PSEL monitoring	Monitoring is done as required, spot-checked, no problems noted.
70			x	Testing requirements	
71			x	Modified Method 9 procedure	
72			x	EF verification and compliance source testing schedule	Testing is required no later than 4/30/2014.
73			x	Permittee must not knowingly render inaccurate any monitoring	

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Condition Number	In compliance	Out of compliance	Other	Summary of Requirement	Observations/comments (records review, monitoring data, process parameters, control device parameters, etc)
74			x	Use same methods for compliance and emissions for fee purposes	
75			x	Monitoring requirements commence on date of permit issuance.	
76			x	General records requirement	
77	x			Make effort to maintain 100 percent of records.	
78			x	Recordkeeping requirements commence on date of permit issuance.	
79	x			Keep records for five years.	Records are kept.
80	x			Specific recordkeeping requirements	Required records are kept and available.
81			x	Keep monitoring records for five years.	Note, this condition is a repeat of condition 79.
82	x		*	Immediate SSM reporting requirement	No incidents requiring immediate reporting have occurred. See condition 91, below.
83	x			Excess emission reporting requirements	
84	x			Permit deviations reporting	Permit deviation was reported as required, see Annual Reports section, page 3.
85	x			Submit source tests within 45 days	
86	x			Required reports must be certified by responsible official	
87	x			Reporting requirements commence on date of permit issuance.	
88	x			Semi-annual and annual report requirements	Reports include all required information. Incident on May 16, 2012 (see condition 23, above) reported as required.

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Condition Number	In compliance	Out of compliance	Other	Summary of Requirement	Observations/comments (records review, monitoring data, process parameters, control device parameters, etc)
89	x			Semi-annual compliance certification requirement	
90			x	Permittee may use monitoring for compliance certification purposes	
91	x			Subpart ZZZZZ semi-annual compliance certification and summary report requirements	One incident on May 16, 2012. Investigation of smoke in Plant 3 discovered the baghouse intake connecting flange had separated, reducing collection efficiency and allowing smoke into the building. Smoke was collected by high canopy hoods, no excess emission occurred. Equipment was repaired, incident was reported as required in semi-annual report. Immediate reporting per condition 82 was not required.
92			x	Non-applicable requirements	

DEQ Air Quality Inspection Report

OTHER DISCUSSIONS

COMPLIANCE STATUS OF FACILITY

Check one of the following:

<input checked="" type="checkbox"/>	Facility is in compliance with the permit conditions described above.
<input type="checkbox"/>	Facility is not in compliance with one or more of the permit conditions described above (provide additional detail below).

Is the facility under a compliance schedule to correct previous compliance problem(s)? Check one of the following:

<input checked="" type="checkbox"/>	Facility is not under a compliance schedule to correct previous noncompliance.
<input type="checkbox"/>	Facility is on schedule to correct previous noncompliance.
<input type="checkbox"/>	Facility is not on schedule to correct previous noncompliance (provide additional detail below).

Is the facility under a compliance schedule to comply with future requirement(s)? Check one of the following:

<input checked="" type="checkbox"/>	Facility is not under a compliance schedule for future requirement(s).
<input type="checkbox"/>	Facility is on schedule to meet future requirement(s).
<input type="checkbox"/>	Facility is not on schedule to meet future requirement(s) (provide additional detail below).

- If not in compliance, give additional detail and describe actions taken or to be taken: Warning Letter (WL) or Pre-Enforcement Notice (PEN).
- Provide any other notes or conclusions that may be pertinent to current or future compliance determinations.
- Discuss any compliance assistance and/or corrective action taken during the inspection.

ATTACHMENTS

- None