



Louisville Metro Air Pollution Control District
701 W. Ormsby Avenue
Louisville, Kentucky 40203



Permit No.: C-1216-1004-16-V

Plant ID:

Effective Date: xx/xx/2016

Expiration Date: xx/xx/2017

Source: BAE Systems
Owner: BAE System Land & Armaments L.P.
163 Rochester Drive
Louisville, KY 40214

is authorized to construct the described control equipment by the Louisville Metro Air Pollution Control District. Authorization is based on information provided with the application submitted by the company and in accordance with applicable regulations and the conditions specified herein.

Process equipment description:

One (1) Trinco shot blast cabinet with aluminum oxide blast media (U12, E39a), make Trinco, model DP850-PC, rated at 268 lbs/hr, for surface preparation of miscellaneous metal parts controlled by a filter (C39a) (the dust is collected in the dust collector) located inside Building 51.

Applicable Regulation(s): 2.03, 2.16, 5.00, 5.01, 5.14, 5.20, 5.21, 5.22, 5.23, and 7.08

Application No.: 78030

Application Received: 06/29/2016

Permit Writer: Nantaporn Noosai

Public Comment Date: 07/28/2016

{manager1}
Air Pollution Control Officer
{date1}

Construction Permit Revisions

Permit No.	Issue Date	Public Notice Date	Change Type	Change Scope	Description
C-1216-1004-16-V	xx/xx/2016	07/28/2016	Initial	Entire Permit	Initial Permit Issuance for one (1) 268 lb/hr shot blast cabinet with aluminum oxide blast media (U12, E39a) for surface preparation of miscellaneous metal parts controlled filter (C39a). This equipment is to replace a glass bead shot blast cabinet, make Empire, model MH-36485, rated at 50 lb/hr, located at Hut 51 west wall.

This permit covers only the provisions of Kentucky Revised Statutes Chapter 77 Air Pollution Control, the regulations of the Louisville Metro Air Pollution Control District (District) and, where appropriate, certain federal regulations. The issuance of this permit does not exempt any owner or operator to whom it has been issued from prosecution on account of the emission or issuance of any air contaminant caused or permitted by such owner or operator in violation of any of the provisions of KRS 77 or District regulations. Any permit shall be considered invalid if timely payment of applicable fees is not made after receipt of the statement of fees (SOF). The permit contains general permit conditions and specific permit conditions. General conditions are applicable unless a more stringent requirement is specified elsewhere in the permit.

General Conditions

- G1. The owner or operator of the affected facility covered by this permit shall notify the District of any process change, equipment change, material change, or change in method or hours of operation. This requirement is applicable to those changes (except equipment changes) that may have the potential for increasing the emission of air contaminants to a level in excess of the applicable limits or standards specified in this permit or District regulations.
- G2. The owner or operator shall obtain new or revised permits from the District in accordance with District Regulation 2.16 for Title V sources, District Regulation 2.17 for FEDOOP sources or District Regulation 2.03 for other sources:
- a. The company relocates to a different physical address.
 - b. The ownership of the company is changed.
 - c. The name of the company as shown on the permit is changed.
 - d. Permits are nearing expiration or have expired.
- G3. The owner or operator shall submit a timely application for changes according to G2. Timely renewal is not always achievable; therefore, the company is hereby authorized to continue operation in compliance with the latest District permit(s) until the District issues the renewed permit(s).
- G4. The owner or operator shall not be authorized to transfer ownership or responsibility of the permit. The District may transfer permits after appropriate notification (Form AP-100A) has been received and review has been made.
- G5. The owner or operator shall pay the required permit fees within 45 days after issuance of the SOF by the District, unless other arrangements have been proposed and accepted by the District.
- G6. This permit allows operation 8,760 hours per year unless specifically limited elsewhere in this permit.

- G7. The owner or operator shall submit emission inventory reports as required by Regulation 1.06.
- G8. The owner or operator shall timely report abnormal conditions or operational changes, which may cause excess emissions as required by Regulation 1.07.
- G9. Unless specified elsewhere in this permit, the owner or operator shall complete required monthly record keeping within 30 days following the end of each calendar month.
- G10. If a change in the Responsible Official (RO) occurs during the term of this permit, the owner or operator shall provide written notification (Form AP-100A) to the District within 30 calendar days of the date the RO change occurs.

Specific Conditions

S1. Standards (Regulation 2.03, section 6.1)

a. PM/PM₁₀

- i. The owner or operator shall not allow plantwide PM/PM₁₀ emissions to exceed 100 tons per 12-month rolling period¹. (Regulation 2.05)
- ii. The owner or operator shall not allow PM emissions to exceed 2.34 lb/hr from the Trinco shot blast cabinet (U12, E39a)². (Regulation 7.08, section 3.1.2)
- iii. The owner or operator shall use control device filters that meet the manufacturer’s original specifications with 90% control efficiency or greater. (Regulation 2.03, section 6.1)

b. Opacity

The owner or operator shall not allow visible emissions to equal or exceed 20% opacity. (Regulation 7.08, section 3.1.1)

c. TAC

- i. The owner or operator shall utilize control device C39a at all times the Trinco shot blast cabinet is in operation and shall, to the extent practicable, maintain and operate the affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions³. (Regulation 2.03, section 6.1)

¹ The PM/PM₁₀ limit of 100 tons per year, plantwide, is a PSD avoidance limit.

² The company submitted a Potential to Emit (PTE) calculation on 07/20/2016 demonstrating that the potential uncontrolled PM emissions from the Trinco shot blast cabinet (1.85 lb/hr) cannot exceed the standard (2.34 lb/hr) from Regulation 7.08.

³ Based on the company’s Environmental Acceptability (EA) demonstration submitted on 07/20/2016, Aluminum (Al), Antimony (Sb), Arsenic (As), Chromium III and VI (Cr³⁺ and Cr⁶⁺), Cobalt (Co), Copper (Cu), Lead (Pb), Manganese (Mn), and Mercury (Hg) emissions are *de minimis* uncontrolled, Cadmium (Cd) and Nickel (Ni) emissions are *de minimis* controlled but not *de minimis* uncontrolled. Therefore, the permit will require the control device for the Trinco shot blast cabinet to be operated at all times in order to comply with the STAR program. As of the effective of this permit, the *de minimis* levels of the determined TACs are:

TAC	De minimis (lbs/hr)	De minimis (lbs/averaging period)	Averaging Period	TAC	De minimis (lbs/hr)	De minimis (lbs/averaging period)	Averaging Period
Aluminum	1.00	1.00	8 hr	Cobalt	0.00022	0.19	Annual
Antimony	0.76	672.00	Annual	Copper	0.04	0.04	8 hr
Arsenic	0.00012	0.11	Annual	Lead	0.043	38.40	Annual
Cadmium	0.00030	0.27	Annual	Manganese	0.027	24.00	Annual
Chromium III	0.10	0.10	8 hr	Mercury	0.16	144.00	Annual
Chromium VI	0.000045	0.04	Annual	Nickel	0.0021	1.82	Annual

- ii. The owner or operator shall not allow emissions of any TAC to exceed environmentally acceptable (EA) levels, whether specifically established by modeling or determined by the District to be *de minimis*. (Regulation 5.00 and 5.21)

S2. Monitoring and Record Keeping (Regulation 2.03, section 6.1)

The owner or operator shall maintain the required records for a minimum of 5 years and make the records readily available to the District upon request.

a. PM/PM₁₀

- i. The owner or operator shall monthly calculate and record PM/PM₁₀ emissions plantwide monthly and for the past 12-consecutive months.
- ii. The owner or operator shall maintain records of the certification for the filters in the control device.

b. Opacity

- i. The owner or operator shall conduct a monthly one-minute visible emissions survey, during normal operation, of the emission points. No more than four emission points shall be observed simultaneously. The opacity surveys can be performed on the building exhaust points if the process is inside an enclosure.
- ii. At emission points where visible emissions are observed, the owner or operator shall initiate corrective action within eight hours of the initial observation. If the visible emissions persist, the owner or operator shall perform or cause to be performed a Method 9, in accordance with 40 CFR Part 60, Appendix A, within 24 hours of the initial observation.
- iii. The owner or operator shall maintain records, monthly, of the results of all visible emissions surveys and tests. Records of the results of any visible emissions survey shall include the date of the survey, the name of the person conducting the survey, whether or not visible emissions were observed, and what if any corrective action was performed. If an emission point is not being operated during a given month, then no visible emission survey needs to be performed and a negative declaration shall be entered in the record.

c. **TAC**

- i. The owner or operator shall maintain records sufficient to demonstrate environmental acceptability, including, but not limited to, SDS, analysis of emissions, and/or modeling results.
- ii. The owner or operator shall re-evaluate the environmental acceptability and document the environmentally acceptable emissions if a new TAC is introduced or the content of a TAC in a raw material increases above *de minimis* at the time of the change.
- iii. The owner or operator shall, monthly, perform and keep records of a visual inspection of the structural and mechanical integrity of the dust collector for signs of damage, air leakage, corrosion, etc. and repair as needed.
- iv. The owner or operator shall maintain daily records of any periods of time where the Trinco shot blast cabinet was operating without filter or a declaration that the filter was operated at all times when the blast cabinet was in operation for a given day. The record shall include the following:
 - 1) The date, duration (including start and stop time) of each bypass event;
 - 2) Identification of the control device and process equipment in operation;
 - 3) The total lb/averaging period and lb/hr emissions of Cadmium, and Nickel during each bypass event;
 - 4) Summary information on the cause or reason for each control device bypass event;
 - 5) Corrective action taken to minimize the extent and duration of each bypass event; and
 - 6) Measures implemented to prevent reoccurrence of the situation that resulted in bypassing the control device.

S3. **Reporting (Regulation 2.03, section 6.1)**

The owner or operator shall submit semi-annual compliance reports that include the information in this section. All reports shall include the company name, plant ID number, and the beginning and ending date of the reporting period. The compliance reports shall be postmarked within 60 days following the end of each reporting period. All compliance reports shall include the following certification statement per Regulation 2.16, section 3.5.11.

- “Based on information and belief formed after reasonable inquiry, I certify that the statements and information in this document are true, accurate, and complete.”
- Signature and title of the Responsible Official of the company.

The compliance reports are due on or before the following dates of each calendar year:

<u>Reporting Period</u>	<u>Report Date</u>
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January 1 st through June 30 th	August 29 th
July 1 st through December 31 st	March 1 st

a. **PM/PM₁₀**

i. The owner or operator shall include, the following information in the semi-annual compliance monitoring reports for PM/PM₁₀:

- 1) The reporting period;
- 2) The monthly and 12-rolling month PM/PM₁₀ emissions, plantwide, for each month in the reporting period;

b. **Opacity**

i. Any deviation from the requirement to perform monthly visible emission surveys or Method 9 tests;

ii. Any deviation from the requirement to record the results of each visible emission survey and Method 9 test performed;

iii. The number, date, and time of each visible emission survey where visible emissions were observed and the results of the Method 9 test performed;

iv. Identification of all periods of exceeding an opacity standard; and

v. Description of any corrective action taken for each exceedance of the opacity standard.

c. **TAC**

i. The owner or operator shall report any conditions that were inconsistent with those conditions analyzed in the most recent Environmental Acceptability Demonstration or a negative declaration stating that operations were within the conditions analyzed. This includes, but is not limited to, control device upset conditions.

ii. For any conditions outside the analysis, the owner or operator shall re-analyze to determine whether these conditions comply with the STAR program. Changes to the air dispersion modeling program or meteorological data used in the most recent Environmental Acceptability Demonstration do not trigger the requirement to re-analyze. (Regulation 5.21 sections 4.22 – 4.24)

iii. The owner or operator shall submit the re-evaluated EA demonstration to the District within 6 months after a change of a raw material as described in S.2.c.ii.

- iv. The owner or operator shall report any deviation from the requirement of performing a monthly visual inspection of the structural and mechanical integrity of the baghouse.
- v. The owner or operator shall report any deviation from the requirement to utilize the control device (filter) at all times the Trinco shot blast booth is in operation, including the following:
 - 1) The date, duration (including start and stop time) of each bypass event;
 - 2) The total lb/averaging period and lb/hr of Cadmium, and Nickel during each bypass event;
 - 3) Summary information on the cause or reason for each control device bypass event;
 - 4) Corrective action taken to minimize the extent and duration of each bypass event; and
 - 5) Measures implemented to prevent reoccurrence of the situation that resulted in bypassing the filter.
 - 6) If there are no periods of bypassing the filter during a reporting period, the owner or operator shall submit a negative declaration for the reporting period.