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DEPARTMENT OF NATURAL RESOURCES

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JUN 09 2016

Ms. Tonya Aggson
Environmental Engineer
Alliant Techsystems Operations LLC. - Lake City Army Ammunition Plant
P.O. Box 1000
Independence, MO 64051

RE: New Source Review Permit Amendment - Permit Number: 032015-020A
Project Number: 2016-04-016; Installation Number: 095-0046

Dear Ms. Aggson:

This amendment is in response to your plans to operate a 0.8 MMBtu/hr natural gas fired Salt Holding Tank (EP-53E). Due to the proximity in timing, this project is considered a part of the same project as the equipment permitted in permit #032015-020. Therefore, in this amendment the potential emissions from the natural gas fired Salt Holding Tank are considered in combination with the emissions of the equipment associated with Permit #032015-020.

In your previous permit #032015-020, the project included replacing all existing electric furnaces associated with the installation's existing machine gun belt links operation. Table 2 of the permit listed the furnace and its exhaust stacks associated with the links operations. The included natural gas fired emission units were EP-53 Links Anneal Oven Charge End (0.37 MMBtu/hr), EP-53A Links Anneal Oven Burner Exhaust West (1 MMBtu/hr), EP53-B Links Anneal Oven Burner Exhaust East (1.2 MMBtu/hr), EP-53C Links Quench Bath Heater (1 MMBtu/hr), and EP-53D Links Endothermic Gas Generator (0.6 MMBtu/hr). After the completion of permit #032015-020 Lake City Army Ammunition added a natural gas fired Salt Holding Tank (EP-53E) without seeking a determination from the Air Pollution Control Program. This amendment is to add EP-53E to the project equipment list and to update the project emissions to include the emissions from EP-53E.

According to your amendment application, annual preventive maintenance specifies that the salt used in the furnace permitted in permit #032015-020 and the three furnaces described in the no permit required project #2005-10-019 be removed from the salt quench bath. This is accomplished by pumping the molten salt from the quench bath into a secondary salt holding tank. The secondary salt holding tank holds the salt at a temperature of 500 degrees Fahrenheit for 8 to 10 days using one 0.8 MMBtu/hr natural gas fired radiant tube burner (EP-53E). Once the furnace quench bath is empty, the quench bath is cooled, its components are inspected or repaired and then the salt is pumped from the holding tank back into the quench bath.

The new equipment list which includes the Salt Holding Tank is listed in Table 1.

Table 1: Project Equipment List

Emission Unit	Description	Project Status	MHDR
EP-53	Links Anneal Oven Charge End	New	0.37 MMBtu/hr natural gas
EP-53A	Links Anneal Oven Burner Exhaust West	New	1 MMBtu/hr natural gas
EP-53B	Links Anneal Oven Burner Exhaust East	New	1.2 MMBtu/hr natural gas
EP-53C	Links Quench Bath Heater	New	1 MMBtu/hr natural gas
EP-53D	Links Endothermic Gas Generator	New	0.6 MMBtu/hr natural gas
EP-53E	Salt Holding Tank	New	0.8 MMBtu/hr natural gas
EP46	(2) Tie Bar Machines	Modified	6,900 links/hr
EP47	(3) Resistance Welders	Modified	42,609 links/hr
-	Lamstamp, lubricant used by link presses	Modified	320,400 links/hr ~ 0.305 gal/hr
-	Vanish 6833, lubricant used by ammunition can seal presses	Modified	5,400 ammunition can seals/hr ~ 0.084 gal/hr

Table 2 represents the new calculations for this amendment.

Table 2: Emissions Summary (tons per year)

Pollutant	Regulatory <i>De Minimis</i> Levels	Existing Potential Emissions	Existing Actual Emissions (2013 EIQ)	Potential Emissions of the Application
PM	25.0	N/D	N/A	7.53
PM ₁₀	15.0	76.20	7.25	7.65
PM _{2.5}	10.0	N/D	7.18	7.65
SO _x	40.0	1,780.65	1.36	0.01
NO _x	40.0	368.95	47.05	2.12
VOC	40.0	1,460.25	113.07	2.30
CO	100.0	167.45	26.11	1.78
GHG (CO _{2e})	100,000	N/D	N/A	2,551.81
HAPs	25.0	272.24	11.18	0.04
Hexane	10.0	N/D	0.50	0.03

N/A = Not Applicable; N/D = Not Determined

The SMAL for hexane is 10.0 tpy.

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Emissions from the combustion of natural gas associated with EP-53E were determined using emission factors obtained from the EPA document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition, Section 1.4 "Natural Gas Combustion" (July 1998).

If you were adversely affected by this permit decision, you may be entitled to pursue an appeal before the administrative hearing commission pursuant to Sections 621.250 and 643.075.6 RSMo. To appeal, you must file a petition with the administrative hearing commission within thirty days after the date this decision was mailed or the date it was delivered, whichever date was earlier. If any such petition is sent by registered mail or certified mail, it will be deemed filed on the date it is mailed; if it is sent by any method other than registered mail or certified mail, it will be deemed filed on the date it is received by the administrative hearing commission, whose contact information is: Administrative Hearing Commission, United States Post Office Building, 131 West High Street, Third Floor, P.O. Box 1557, Jefferson City, Missouri 65102, phone: 573-751-2422, fax: 573-751-5018, website: www.oa.mo.gov/ahc.

If you have any questions regarding this amendment, please do not hesitate to contact Chad Stephenson, at the department's Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102 or at (573) 751-4817. Thank you for your attention to this matter.

Sincerely,

AIR POLLUTION CONTROL PROGRAM



Kendall B. Hale
Permits Section Chief

KBH:csj

Enclosures

c: Kansas City Regional Office
PAMS File: 2016-04-016