STATE OF TENNESSEE
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
Division of Air Pollution Control
William R. Snodgrass Tennessee Tower
312 Rosa L. Parks Avenue, 15th Floor
Nashville, TN 37243

January 27, 2022

Certified Article Number
9414 7266 9904 2170 1008 06
SENDER'S RECORD

C T Corporation System
300 Montvue Road
Knoxville, Tennessee 37919-5546

RE: BAE Systems Ordnance Systems Inc.
File ID. 37-0028
Case No. APC21-0161

Dear Sir or Madam:

Enclosed, please find an Order and Assessment of Civil Penalty issued by Michelle Walker Owenby, Technical Secretary of the Air Pollution Control Board, Tennessee Department of Environment and Conservation (TDEC), in the above-referenced matter. Please read it carefully and pay special attention to the Notice of Rights section.

If you have any questions regarding this Order and Assessment of Civil Penalty, please contact Bill Miller at (615)-532-0136 or via e-mail at William.F.Miller@tn.gov. For all other questions, please contact the TDEC Division of Air Pollution Control at (615) 532-0554 or via e-mail at air.pollution.control@tn.gov.

Sincerely,

Kevin McLain
Section Manager, Enforcement
Division of Air Pollution Control

vom

Enclosure

TENNESSEE AIR POLLUTION CONTROL BOARD

IN THE MATTER OF:	)	**DIVISION OF AIR POLLUTION CONTROL**
	)	
	)	
BAE SYSTEMS ORDNANCE SYSTEMS INC.,	)	
	)	
	)	
	)	
RESPONDENT.	)	**CASE NO. APC21-0161**

TECHNICAL SECRETARY'S ORDER AND ASSESSMENT OF CIVIL PENALTY

Michelle Walker Owenby, Technical Secretary of the Air Pollution Control Board, states:

PARTIES

I.

Michelle Walker Owenby is the Technical Secretary of the Air Pollution Control Board ("Board") and Director of the Division of Air Pollution Control ("Division"), Tennessee Department of Environment and Conservation ("Department").

II.

BAE Systems Ordnance Systems Inc. ("Respondent") is a foreign corporation formed in Delaware and authorized to do business in the State of Tennessee. Respondent's facility address is 4509 West Stone Drive, Kingsport, Tennessee. Respondent's registered agent for service of process is C T Corporation System, 300 Montvue Road, Knoxville, Tennessee 37919-5546.

AUTHORITY

III.

The Technical Secretary may assess a civil penalty of up to $25,000 per day for each day of violation of the Tennessee Air Quality Act, Tenn. Code Ann. §§ 68-201-101 to -121 ("Act"), or Tennessee Air Pollution Control Regulations, Tenn. Comp. R. & Regs. 1200-03-01 to -36; 0400-30-01 to -39, ("Rules"). Tenn. Code Ann. § 68-201-116. The Technical Secretary may issue an order for correction to the responsible person when provisions of the Act or Rules are violated, and such person may be liable for resulting damages to the State. *Id.*

IV.

Respondent is a "person," Tenn. Code Ann. § 68-201-102(7), and has violated the Act and Rules.

V.

"Air contaminant" means particulate matter, dust, fumes, gas, mist, smoke, vapor, or any combinations thereof. Tenn. Code Ann. § 68-201-102(1).

VI.

"Air contaminant source" means any and all sources of emission of air contaminants, whether privately or publicly owned or operated. Tenn. Code Ann. § 68-201-102(2). Respondent operates an air contaminant source.

FACTS

VII.

On June 26, 2018, the Technical Secretary issued Title V Major Source operating permit number 568188, ("Permit 568188"), (facility 37-0028), to Respondent, for the manufacturing of explosives. On May 28, 2019, and February 1, 2021, the Technical Secretary issued modifications to Permit 568188.

VIII.

Conditions E4-4 and E4-4 (RC1) of Permit 568188 state, in pertinent part:

> The permittee is subject to 40 CFR part 63 subpart DDDDD because the permittee owns or operates industrial, commercial, or institutional boiler or process heater as defined in 40 CFR §63.7575 that is located at, or is part of, a major source of HAP, except as specified in 40 CFR §63.7491.

Conditions E4-4 and E4-4 (RC1) of Permit 568188 require emission sources 37-0028-01, 37-0028-02, 37-0028-03, and 37-0028-04 (coal-fired boilers) to comply with the applicable provisions of 40 CFR part 63 Subpart DDDDD (National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters). Subpart DDDDD establishes the following requirements:

- §63.7520(c), §63.7530(b), and Table 7 to Subpart DDDDD require owners or operators complying with a mercury emission limit using activated carbon

injection to establish a site-specific minimum activated carbon injection rate operating limit using data from the activated carbon rate monitors and mercury performance test. Owners or operators must determine the lowest hourly average established during the performance test as the operating limit. When an affected unit operates at lower loads, owners or operators must determine the required injection rate by multiplying the activated carbon injection rate by the load fraction. §63.7575 defines the load fraction as the actual heat input of a boiler or process heater divided by heat input during the performance test that established the minimum activated carbon injection rate.

- §63.7540(a) and Table 8 to Subpart DDDDD require owners or operators using carbon injection to demonstrate continuous compliance by collecting the carbon injection rate monitoring system data; reducing the data to 30-day rolling averages; and maintaining the 30-day rolling average carbon injection rate at or above the minimum carbon injection rate.

IX.

On or about August 26, 2021, the Division received Respondent's NESHAP Report (40 CFR part 63 Subpart DDDDD) for the period of January 1, 2021, through June 30, 2021. Respondent uses brominated powdered activated carbon (BPAC) sorbent injection to control mercury emissions from the coal-fired boilers. The NESHAP Report for January 1, 2021, through June 30, 2021, indicated that the BPAC sorbent injection rate continuous monitoring system (CMS) indicated BPAC injection rates below the required minimum values on the dates shown in Tables 1 and 2 below:

Table 1: Sorbent Injection Rate Deviations, Unit 2

Date	Measured 30-Day Average Sorbent Injection Rate (lbs/hr)	Required 30-Day Average Sorbent Injection Rate (lbs/hr)
6/24/21	19.50	20.19
6/25/21	19.16	20.24
6/26/21	18.64	20.21
6/27/21	18.20	20.36
6/28/21	17.70	20.21
6/29/21	17.57	20.25
6/30/21	17.65	20.32
Total number of 30-day averages: 181 Number of deviations: 7 Deviation percentage: 3.9%		

Table 2: Sorbent Injection Rate Deviations, Unit 4		
Date	**Measured 30-Day Average Sorbent Injection Rate (lbs/hr)**	**Required 30-Day Average Sorbent Injection Rate (lbs/hr)**
1/23/2021	33.82	34.29
1/24/2021	32.79	33.83
1/25/2021	31.70	33.52
1/26/2021	30.45	33.10
1/27/2021	29.19	32.70
1/28/2021	28.03	32.59
1/29/2021	27.91	32.69
1/30/2021	27.48	32.77
1/31/2021	28.76	32.92
2/1/2021	30.04	33.12
2/2/2021	31.23	33.28
2/3/2021	32.34	33.38
3/25/21	35.69	35.89
3/26/21	35.77	36.05
3/27/21	36.00	36.04
3/30/21	36.31	36.37
3/31/21	36.34	36.35
5/2/2021	35.74	35.90
5/3/2021	35.39	36.12
5/4/2021	35.06	36.54
5/5/2021	34.67	37.03
5/6/2021	34.32	37.36
5/7/2021	34.10	37.74
5/8/2021	34.03	38.05
5/9/2021	33.86	38.35
5/10/2021	33.64	38.51
5/11/2021	33.51	38.66
5/12/2021	33.46	39.07
5/13/2021	33.38	39.55
5/14/2021	33.28	39.73
5/15/2021	33.13	39.70
5/16/2021	32.89	39.64
5/17/2021	32.53	39.70
5/18/2021	32.05	39.74
5/19/2021	31.53	39.65
5/20/2021	31.04	39.38
5/21/2021	30.74	39.19
5/22/2021	30.39	38.89
5/23/2021	29.94	38.50

Table 2: Sorbent Injection Rate Deviations, Unit 4 (continued)		
Date	**Measured 30-Day Average Sorbent Injection Rate (lbs/hr)**	**Required 30-Day Average Sorbent Injection Rate (lbs/hr)**
5/24/2021	29.61	38.36
5/25/2021	29.40	38.40
5/26/2021	29.21	38.38
5/27/2021	28.91	38.71
5/28/2021	28.49	38.90
5/29/2021	28.22	39.06
5/30/2021	27.51	39.01
5/31/2021	27.71	38.95
6/1/2021	27.97	38.92
6/2/2021	28.22	38.96
6/3/2021	28.42	38.85
6/4/2021	28.63	38.46
6/5/2021	28.81	38.15
6/6/2021	28.69	37.82
6/7/2021	28.48	37.46
6/8/2021	28.42	37.25
6/9/2021	28.30	37.00
6/10/2021	28.11	36.76
6/11/2021	28.04	36.36
6/12/2021	28.06	36.15
6/13/2021	28.11	36.30
6/14/2021	28.21	36.64
6/15/2021	28.36	37.05
6/16/2021	28.71	37.22
6/17/2021	29.19	37.36
6/18/2021	29.71	37.49
6/19/2021	30.17	37.94
6/20/2021	30.49	38.41
6/21/2021	30.67	38.87
6/22/2021	30.84	39.40
6/23/2021	30.88	39.79
6/24/2021	30.80	40.16
6/25/2021	30.73	40.24
6/26/2021	30.70	40.15
6/27/2021	30.63	40.12
6/28/2021	30.27	39.78
6/29/2021	30.63	39.80
6/30/2021	30.53	39.93

Total number of 30-day averages: 181 Number of deviations: 77 Deviation percentage: 42.5%

X.

Respondent submitted the following information regarding the deviations identified above. The aforementioned Subpart DDDDD report for the period of January 1, 2021, to June 30, 2021 states, in pertinent part:

> The new venturi system replacing the blower system installed on 11 AUG 2020 seems to be functioning well. There also appears to be very little fluctuation and instrumentation interference. This indicates the changes made in late August appear to be working.
>
> . . .
>
> As outlined and detailed in the previous semiannual report, a subject matter expert was consulted to determine a cause and consulted on the installation of the new venturi equipment. The installation of the venture eliminated the need for the blower, which was determined to be the primary cause of backpressure issues. The BPAC readings have stabilized and minimal pressure/vacuum is being measured in the volumetric weighhopper, since this change.

Additionally, the previous Subpart DDDDD report for the period of July 1, 2020, to December 31, 2020, states, in pertinent part:

> In the event the equipment change did not completely fix the interference issue, an action plan consisting of additional equipment replacement including scale vendor pressure compensation kits, upsized supply lines and injection lances, and ultimately a redesigned supply system with new eductors and blowers was developed. Although there have been additional low injection rates these are not from the previous interference issue. If the interference returns the action plan will be executed as expeditiously as possible based on equipment supply and boiler shutdown schedules to ensure the sorbent injection monitoring system complies with regulatory requirements. The installation of the venture system has improved vacuum and educator operation as well as removing the instrumentation interference.

XI.

On October 5, 2021, the Division issued a Notice of Violation (NOV) to Respondent for the violations identified in paragraph **IX**. The NOV required that Respondent submit a correction action report to the Division detailing what actions will be taken to return into compliance. On

October 25, 2021, Respondent submitted information that all coal-fired boilers were currently shutdown and are in the process of being retired once the new natural gas steam facility has demonstrated consistent operations. On November 2, 2021, Respondent submitted a notification via e-mail to the Division that indicated the four coal-fired boilers had ceased operations and are no longer needed since the natural gas fired boilers, sources 37-0028-120, -121, -122, and -123, are now operational.

VIOLATIONS

XII.

By failing to comply with conditions E4-4 and E4-4 (RC1) of Permit 568188, Respondent violated Division Rule 1200-03-09-.02(6), which states, in pertinent part:

> Operation of each air contaminant source shall be in accordance with the provisions and stipulations set forth in the operating permit, all provisions of these regulations, and all provisions of the Tennessee Air Quality Act.

ORDER AND ASSESSMENT OF CIVIL PENALTY

XIII.

Respondent is assessed a civil penalty of $12,000 for violation of the Act and Rules, to be paid to the Department at the following address:

Division of Fiscal Services - Consolidated Fees Section
Tennessee Department of Environment and Conservation
William R. Snodgrass Tennessee Tower, 10th Floor
312 Rosa L. Parks Avenue
Nashville, Tennessee 37243

The civil penalty shall be delivered to the Department on or before the 31st day after receipt of this Order and Assessment of Civil Penalty. The case number, **APC21-0161**, should be clearly written on all correspondence.

RESERVATION OF RIGHTS

In issuing this Order and Assessment of Civil Penalty, the Department does not implicitly or expressly waive any provision of the Act or Rules promulgated thereunder or the authority to assess costs, civil penalties, and/or damages incurred by the State against the Respondent(s). The

Department expressly reserves all rights it has at law and in equity to order further corrective action, assess civil penalties and/or damages, and to pursue further enforcement action including, but not limited to, monetary and injunctive relief. Compliance with this order will be considered as a mitigating factor in determining the need for future enforcement action(s).

NOTICE OF RIGHTS

The Respondent may appeal this Order and Assessment. Tenn. Code Ann. §§ 68-201-108(a) and 68-201-116(b). To do so, a written petition setting forth the reasons for requesting a hearing must be received by the Technical Secretary within 30 days of the date Respondent received this Order and Assessment or this Order and Assessment becomes final. Any petition for review must be directed to:

Commissioner of the Department of Environment and Conservation
c/o Jenny L. Howard, General Counsel
Tennessee Department of Environment and Conservation
William R. Snodgrass Tennessee Tower, 2nd Floor
312 Rosa L. Parks Avenue
Nashville, Tennessee 37243

If an appeal is filed, an initial hearing of this matter will be conducted by an Administrative Law Judge (ALJ) as a contested case hearing. Tenn. Code Ann. § 68-201-108(a); Tenn. Code Ann. § 4-5-301 to -325; Tenn. Comp. R. & Regs. 1360-04-01. Such hearings are legal proceedings in the nature of a trial. Individual respondents may represent themselves or be represented by an attorney licensed to practice law in Tennessee. Artificial respondents (*e.g.*, corporations, limited partnerships, limited liability companies, etc.) cannot engage in the practice of law and therefore may only pursue an appeal through an attorney licensed to practice law in Tennessee. Low-income individuals may be eligible for representation at reduced or no cost through a local bar association or legal aid organization.

At the conclusion of any initial hearing, the ALJ has the authority to affirm, modify, or deny this Order and Assessment of Civil Penalty, including the authority to increase or decrease the penalty. Tenn. Code Ann. § 68-201-116. The ALJ, on behalf of the Board, has the authority to assess additional damages incurred by the Department including, but not limited to, all docketing

expenses associated with the setting of the matter for a hearing, and the hourly fees incurred due to the presence of the ALJ and a court reporter.

Technical questions and other correspondence involving compliance issues should be sent to:

Kevin McLain, Division of Air Pollution Control
Tennessee Department of Environment and Conservation
William R. Snodgrass Tennessee Tower, 15th Floor
312 Rosa L. Parks Avenue
Nashville, Tennessee 37243

Attorneys should contact the undersigned counsel of record. The case number, **APC21-0161**, should be written on all correspondence regarding this matter.

Issued by the Technical Secretary, Tennessee Air Pollution Control Board, Department of Environment and Conservation, on this 27th day of January, 2022.

Michelle W. Owenby

Michelle Walker Owenby
Technical Secretary
Tennessee Air Pollution Control Board

Reviewed by:

William Freeman Miller
BPR # 028826
Assistant General Counsel
Department of Environment & Conservation
312 Rosa L. Parks Avenue, 2nd Floor
Nashville, Tennessee 37243
(615) 532-0136
william.f.miller@tn.gov