



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4

ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

DEC 08 2016

CERTIFIED MAIL 7011 3500 0003 2064 3759
RETURN RECEIPT REQUESTED

Mr. Benjamin Kacher
Counsel
BAE Systems Ordnance Systems, Inc.
4050 Peppers Ferry Rd.
Radford, Virginia 24141


Re: Consent Agreement and Final Order - Docket No.: CWA-04-2016-4517(b)
National Pollutant Discharge Elimination System Permit No.: TN0003671
BAE Systems Ordnance Systems, Inc.

Dear Mr. Kacher:

Enclosed please find a fully executed copy of the Consent Agreement and Final Order that has been finalized by the U.S. Environmental Protection Agency Region 4 and the Regional Administrator. Please make note of the provisions under Section IV. Payment.

Should you have any questions or concerns regarding this matter, please contact Ms. Laurie Jones at (404) 562-9201. Legal inquiries should be directed to Mr. Paul Schwartz, Associate Regional Counsel, at (404) 562-9576.

Sincerely,


for James D. Giattina
Director
Water Protection Division

Enclosure

cc: Ms. Jessica Murphy
Tennessee Department of Environment and Conservation

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4

IN THE MATTER OF:

BAE SYSTEMS ORDNANCE SYSTEMS,
INC.

RESPONDENT.

)
) CONSENT AGREEMENT AND
) FINAL ORDER
)
)
) Docket No.: CWA-04-2016-4517(b)
)

HEARING CLERK

2016 DEC - 8 PM 3: 57
P.B.

USEPA REGION 4
OFFICE OF REGIONAL
COUNSEL

CONSENT AGREEMENT

I. Statutory Authority

1. This is a civil penalty proceeding pursuant to Section 309(g)(2)(B) of the Clean Water Act ("CWA"), 33 U.S.C. § 1319(g)(2)(B), and the *Consolidated Rules of Practice Governing the Administrative Assessment of Civil Penalties, Issuance of Compliance or Corrective Action Orders and the Revocation, Termination or Suspension of Permits*, published at 64 Fed. Reg. 40176 (July 23, 1999), codified at 40 Code of Federal Regulations ("C.F.R.") Part 22 ("Part 22").

2. The authority to take action under Section 309(g)(2)(B) of the CWA, 33 U.S.C. § 1319(g)(2)(B), is vested in the Administrator of the United States Environmental Protection Agency ("EPA"). The Administrator has delegated this authority to the Regional Administrator, Region 4, who in turn has delegated this authority to the Director of the Water Protection Division ("Complainant").

II. Allegations

3. To accomplish the objective of the CWA (defined in Section 101(a) of the CWA, 33 U.S.C. § 1251(a), as to restore and maintain the chemical, physical and biological integrity of the nation's waters), Section 301(a) of the CWA, 33 U.S.C. § 1311(a), prohibits the discharge of pollutants by any person into waters of the United States except as in compliance with an National Pollutant Discharge Elimination System ("NPDES") permit issued pursuant to Section 402 of the CWA, 33 U.S.C. § 1342.

4. BAE Systems Ordnance Systems, Inc. ("BAE OSI" or "Respondent") is a corporation existing under the laws of Delaware and registered to do business in the State of Tennessee and is a "person" within the meaning of Section 502(5) of the CWA, 33 U.S.C. §1362(5), and thus subject to its requirements.

5. BAE OSI operates the Holston Army Ammunition Plant ("the Facility"), located at 4509 West Stone Drive, in Kingsport, Tennessee, which is a government-owned, contractor-operated facility. Included in BAE OSI's operation of the Facility is BAE OSI's operation of the Facility's wastewater treatment system which discharges "pollutants" from "point sources" into the Holston River and other tributaries of the Holston River, which are "navigable waters" as defined at Section 502(7) of the CWA, 33 U.S.C. § 1362(7).

6. In May of 2007, the Tennessee Department of Environment and Conservation ("TDEC") issued a modified NPDES permit (NPDES Permit No. TN0003671) (2007 Permit Modification) for the Facility to BAE OSI for the discharge of treated industrial and other wastewaters from a number of outfalls into the Holston River and its tributaries. The 2007 Permit Modification for the first time established an effluent limitation for hexahydro-1,3,5-trinitro-1,3,5-triazine, also known as Research Department Explosive (RDX). RDX is an explosive material that is a critical component in most military munitions and is manufactured only at the Facility. The 2007 Permit Modification set the limit at 12.2 lbs/day, as a monthly average, for discharges from Outfall 20 at the Facility. This effluent limit was derived based on the Holston River's classified use as a drinking water supply and on an EPA health advisory recommending a maximum concentration in drinking water of 2 ug/l to protect human health. Prior to the 2007 Permit Modification, the Tennessee Department of Environment and Conservation had not established an effluent limit for RDX and there was no limit on the discharge of RDX in the NPDES Permit. Because there was no restriction, neither BAE OSI, its predecessor operators, nor the Army had considered control technologies to control RDX discharges at the facility. In recognition of the challenges facing BAE OSI in dramatically reducing an explosive and novel pollutant, the 2007 Permit Modification established a compliance schedule under which BAE OSI was not required to meet the 12.2 lbs/day monthly average limit for RDX until May 1, 2012; for the interim period, the RDX limit was set at 175 lbs/day.

7. TDEC then reissued NPDES Permit No. TN0003671 ("the Permit") to BAE OSI, with an effective date of February 1, 2008. The 12.2 lbs/day monthly average limit for RDX from the 2007 Permit Modification, and the compliance deadline of May 1, 2012, remained in place under the reissued Permit. TDEC modified the Permit on August 31, 2010, with an effective date of October 1, 2010, again retaining the 12.2 lbs/day monthly average limit for RDX and the May 1, 2012 compliance deadline originally established in the 2007 Permit Modification. The Permit expired on March 31, 2014, but remains in force as it has been administratively continued pending reissuance from TDEC.

8. In the period since an RDX limit was first established in 2007, BAE OSI and the owner of the Facility, the United States Army, have endeavored to develop and implement effective controls to ensure compliance with the RDX effluent limits. More than \$43 million has been invested to identify, test, and operate effective RDX control measures. BAE OSI and the Army's efforts have resulted in significant reductions in the amounts of RDX in the Facility's discharge, due in large part to the installation and operation of a reverse osmosis system, which achieves a 98-99% RDX removal efficiency in pre-treating wastewater from six main sources of RDX at the Facility.

9. Notwithstanding these expenditures and efforts, until recently the Facility has exceeded the RDX effluent limit in most months since the 12.2 lbs/day RDX effluent limit in its Permit became effective in May of 2012. Since May 1, 2012, Respondent has exceeded the effluent limit for RDX each and every month except for the recent months of August 2015, October 2015, December 2015, February 2016, April 2016, May 2016, June 2016, and July 2016, when the permit limit was met. In most cases the exceedances of the effluent limit were substantial, with average loading for the period from May 1, 2012 to May 1, 2016 of 42.96 lbs/day, however, the average loading since July 2015 has been 9.31 lbs/day. The RDX violations that have occurred since May 1, 2012 are identified on Exhibit 1, attached hereto.

10. In early 2013, BAE OSI and the Army conducted an assessment of additional sources of RDX to the Facility's Wastewater Treatment Plant ("WWTP"). BAE OSI and the Army determined that highly variable sources of RDX from other buildings not plumbed to the reverse osmosis system could not be sufficiently treated with the Facility's existing WWTP. BAE OSI and the Army decided that an upgrade to the WWTP, with additional anoxic suspended growth basins, would be the optimal solution. When fully operational, the WWTP is expected to remove up to 344 pounds of RDX from up to 6 million gallons of wastewater per day, both well above current rates. A construction schedule for the designed upgrades to the WWTP was established with an overall completion date of February 2020. The schedule is based on the time required to complete engineering design and construction timeframe, the need to keep the WWTP operational during construction, the need for staggered construction to maintain safety standards in an explosive environment, and Department of Defense safety reviews.

11. On August 27, 2014, BAE OSI and the Army entered into a Compliance Agreement with TDEC ("TDEC Compliance Agreement") to address issues related to treatment of RDX waste streams at the Facility. The TDEC Compliance Agreement requires implementation of the WWTP upgrade proposed by BAE OSI and the Army, and implementation of certain additional remedial or mitigation measures, and requires BAE OSI and the Army to meet certain milestones on a schedule, with the last of the tasks to be completed by February 2020. The WWTP upgrade is estimated to cost \$80 million.

12. In addition to the RDX effluent limitation described above, the Permit also includes monthly average and daily maximum effluent limits for BOD5 (a five-day measure of biochemical oxygen demand). The BOD5 limits are tiered, i.e., different limits are established at different production volume tiers. BAE OSI has on numerous occasions in the last five years exceeded the BOD limits in the Permit. In addition, BAE OSI has reported occasional exceedances of additional effluent limits in the Permit, including effluent limits for Total Suspended Solids, nitrogen (nitrogen as ammonia and nitrate limits), E.coli and cyanide. The BOD5, Total Suspended Solids, nitrogen (nitrogen as ammonia and nitrate), E.coli, Total Residual Chlorine, and Cyanide effluent limit violations that are alleged are listed on Exhibit 1, attached hereto.

13. In March of 2014, BAE OSI and the Army instituted new procedures to desynchronize loading on the WWTP to address its issues with BOD5 exceedances, but the facility continues to experience periodic exceedances of the BOD5 effluent limits in the Permit. The planned upgrades to the WWTP are expected to minimize any residual risk of BOD5 exceedances due to upsets or other unpredictable causes.

14. The EPA and BAE OSI have engaged in negotiations to develop additional cost-effective remedial and operational measures that can be implemented at the Facility to address the above-described violations. Those led to an Administrative Order on Consent between EPA and BAE OSI, with an effective date of April 15, 2016, which identifies additional measures which BAE OSI has agreed to implement to achieve near term reductions in BAE OSI's RDX discharge and also reduce the potential for further spills, leaks, bypasses, and BOD5 exceedances prior to the projected completion date of BAE OSI's planned WWTP upgrade in February 2020.

15. Based on the foregoing, Respondent has violated the Permit by discharging RDX, BOD5 and additional pollutants limited by the permit at levels exceeding the effluent limitations in the Permit on numerous occasions. Exhibit A attached hereto lists the violations addressed by this Consent Agreement and Final Order ("CA/FO").

III. Stipulations and Findings

16. Complainant and Respondent have conferred for the purpose of settlement pursuant to 40 C.F.R. § 22.18 and desire to resolve this matter and settle the allegations described herein without a formal hearing. Therefore, without the taking of any evidence or testimony, the making of any argument, or the adjudication of any issue in this matter, and in accordance with 40 C.F.R. § 22.13(b), this CA/FO will simultaneously commence and conclude this matter.

17. For the purposes of this CA/FO, Respondent admits the jurisdictional allegations set out above and neither admits nor denies the factual allegations set out above.

18. Respondent hereby waives its right to contest the allegations set out above and its right to appeal the Final Order accompanying this Consent Agreement.

19. By signing this CA/FO, Respondent certifies that the information it has supplied concerning this matter was at the time of submission, and is, truthful, accurate, and complete for each such submission, response and statement. Respondent realizes that there are significant penalties for submitting false or misleading information, including the possibility of fines and/or imprisonment for knowing submission of such information.

20. EPA reserves the right to assess and collect any and all civil penalties for any violation described herein to the extent that any information or certification provided by Respondent was materially false or inaccurate at the time such information or certification was provided to EPA.

21. Complainant and Respondent agree to settle this matter by their execution of this CA/FO.

IV. Payment

22. Pursuant to Section 309(g)(2)(A)(B) of the CWA, 33 U.S.C. § 1319(g)(2)(B), and 40 C.F.R Part 19, and considering the nature of the violations and other relevant factors, the EPA has determined that one hundred sixty-eight thousand, seven hundred and fifty dollars (\$168,750) is an appropriate civil penalty to settle this action based upon the failure to upgrade the Facility within the timeframe necessary to prevent the violations, the seriousness of the violations and other factors. Respondent consents to the assessment of and agrees to pay the civil penalty and consents to the other conditions set forth in this CA/FO.

23. Respondent shall submit payment of the penalty specified in the preceding paragraph within thirty (30) days of the effective date of this CA/FO via a cashier's or certified check, payable to the order of "Treasurer, United States of America." The check shall reference on its face the name of Respondent and the Docket Number of this CA/FO. Such payment shall be tendered to:

**U.S. Environmental Protection Agency
Fines and Penalties
Cincinnati Finance Center
P.O. Box 979077
St. Louis, Missouri 63197-9000**

24. At the time of payment, Respondent shall send a separate copy of the check, and a written statement that payment has been made in accordance with this CA/FO, to the following persons at the following addresses:

**Regional Hearing Clerk
U.S. Environmental Protection Agency, Region 4
Atlanta Federal Center
61 Forsyth Street, S.W.
Atlanta, Georgia 30303-8960**

and

**Mary Mattox
U.S. Environmental Protection Agency, Region 4
Water Protection Division
Clean Water Enforcement Branch
Municipal and Industrial Enforcement Section
Atlanta Federal Center
61 Forsyth Street, S.W.
Atlanta, Georgia 30303-8960**

25 The penalty amount specified in Paragraph 22 above shall represent civil penalties assessed by EPA and shall not be deductible for purposes of Federal taxes.

26. Pursuant to Section 309(g)(9) of the CWA, 33 U.S.C. § 1319(g)(9), failure by the Respondent to pay the penalty assessed by the CA/FO in full by its due date may subject the Respondent to a civil action to collect the assessed penalty plus interest (at currently prevailing rates from the effective date of this CA/FO), attorney's fees, costs for collection proceedings and a quarterly nonpayment penalty for each quarter during which such failure to pay persists. Such nonpayment penalty shall be in an amount equal to twenty percent (20%) of the aggregate amount of such penalty and nonpayment penalty which are unpaid as of the beginning of such quarter. In any such collection action, the validity, amount and appropriateness of the penalty and of this CA/FO shall not be subject to review.

V. General Provisions

27. This CA/FO does not waive, extinguish, or otherwise affect the Respondent's obligation to comply with all applicable provisions of federal, state, or local law, nor shall it be construed to be a ruling on, or determination of, any issue related to any federal, state, or local permit.

28. Full payment of the civil penalty, as provided in Section IV, shall not in any case affect the right of the EPA or the United States to pursue appropriate injunctive or other equitable relief or criminal sanctions for any violations of law. Full payment of the civil penalty, as provided in Section IV, shall only resolve the Respondent's liability for Federal civil penalties for the violations alleged in this CA/FO.

29. Each undersigned representative of the parties to this CA/FO certifies that he or she is fully authorized to enter into the terms and conditions of this CA/FO and to execute and legally bind that party to it.

30. This CA/FO applies to and is binding upon Respondent and its officers, directors, employees, agents, successors and assigns.

31. Any change in the legal status of Respondent including, but not limited to, any transfer of assets of real or personal property, shall not alter Respondent's responsibilities under this CA/FO.

32. Each party shall bear its own costs and attorneys' fees in connection with the action resolved by this CA/FO.

33. In accordance with 40 C.F.R. § 22.5, the individuals below are authorized to receive service relating to this proceeding.

For Complainant:

Paul Schwartz
Associate Regional Counsel
Office of Environmental Accountability
U.S. Environmental Protection Agency, Region 4
Atlanta Federal Center
61 Forsyth Street, S.W.
Atlanta, Georgia 30303-8960
(404) 562-9576

For Respondent:

Benjamin Kacher
Counsel
BAE Systems Ordnance Systems Inc.
4050 Peppers Ferry Rd.
Radford, VA 24141

34. The parties acknowledge and agree that this CA/FO is subject to the requirements of 40 C.F.R. § 22.45(c)(4), which provides a right to petition to set aside a consent agreement and proposed final order based on comments received during the public comment period.

35. Pursuant to Section 309(g) of the CWA, 33 U.S.C. § 1319(g), and 40 C.F.R. § 22.38(b), Complainant represents that the State of Tennessee was provided a prior opportunity to consult with Complainant regarding this matter.


36. Effective upon signature of this CA/FO by Respondent, Respondent agrees that the time period commencing on the date of its signature and ending on the date EPA receives from Respondent the payment required by this CA/FO shall not be included in computing the running of any statute of limitations potentially applicable to any action brought by the EPA related to the matters addressed in this CA/FO and that, in any action brought by the EPA related to the matters addressed, Respondent will not assert, and may not maintain, any defense or claim based upon principles of statute of limitations, waiver, laches, estoppel, or other defense based on the passage of time during such period. If EPA gives notice to Respondent that it will not make this CA/FO effective, the statute of limitations shall begin to run again commencing ninety days after the date such notice is sent by EPA.

VI. Effective Date

37. The effective date of this CA/FO shall be the date on which the CA/FO is filed with the Regional Hearing Clerk.


AGREED AND CONSENTED TO:

For COMPLAINANT, U.S. ENVIRONMENTAL PROTECTION AGENCY:


for James D. Giattina
Director
Water Protection Division
U.S. EPA, Region 4

Date: 4/29/2016

For RESPONDENT, BAE SYSTEMS ORDNANCE SYSTEMS, INC.:


Benjamin Kacher
Counsel
BAE Systems, Ordnance Systems, Inc.

Date: Oct 6, 2016

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4

IN THE MATTER OF:)
)
BAE SYSTEMS ORDNANCE SYSTEMS,) CONSENT AGREEMENT AND
INC.) FINAL ORDER
)
RESPONDENT.) Docket No.: CWA-04-2016-4517(b)
)
)

FINAL ORDER

In accordance with the *Consolidated Rules of Practice Governing the Administrative Assessment of Civil Penalties, Issuance of Compliance or Corrective Action Orders and the Revocation, Termination or Suspension of Permits*, 40 C.F.R. Part 22, and authorities delegated to me, the forgoing Consent Agreement is hereby approved and incorporated by reference into this Final Order. Pursuant to Section 309(g)(2)(B) of the CWA, 33 U.S.C. § 1319(g)(2)(B), Respondent is hereby ordered to comply with the terms of the foregoing Consent Agreement.

U.S. ENVIRONMENTAL PROTECTION AGENCY

Date: DEC 6 2016



Heather McTeer Toney
Regional Administrator
U.S. EPA, Region 4

Exhibit 1

month	pollutant	test type	days of violation	limit	value	pollutant	test type	days of violation	limit	value	pollutant	test type	days of violation	limit	value	pollutant	test type	days of violation	limit	value
May-12	RDXL	monthly avg	30	12.3	62.9															
Jun-12	RDXL	monthly avg	30	12.3	30.9															
Jul-12	RDXL	monthly avg	30	12.3	47.3															
Aug-12	RDXL	monthly avg	30	12.3	22															
Sep-12	RDXL	monthly avg	30	12.3	66.1															
Oct-12	RDXL	monthly avg	30	12.3	37															
Nov-12	RDXL	monthly avg	30	12.3	51.4															
Dec-12	RDXL	monthly avg	30	12.3	30.1															
Jan-13	RDXL	monthly avg	30	12.3	70.1															
Feb-13	RDXL	monthly avg	30	12.3	73.9	BOD	monthly avg	30	182	213.3	BOD	daily max	3	505	370.8					
Mar-13	RDXL	monthly avg	30	12.3	58.3	BOD	monthly avg	30	188	425.1	BOD	daily max	2	505	708.2					
Apr-13	RDXL	monthly avg	30	12.3	54.3	BOD	monthly avg	30	188	289	BOD	daily max	1	505	391.6					
May-13	RDXL	monthly avg	30	12.3	110.3															
Jun-13	RDXL	monthly avg	30	12.3	111															
Jul-13	RDXL	monthly avg	30	12.3	49.7															
Aug-13	RDXL	monthly avg	30	12.3	84.9	BOD	monthly avg	30	188	223.8	BOD	daily max	1	505	874.6					
Sep-13	RDXL	monthly avg	30	12.3	91.1	BOD	monthly avg	30	188	311	BOD	daily max	4	505	1031.3					
Oct-13	RDXL	monthly avg	30	12.3	54.9															
Nov-13	RDXL	monthly avg	30	12.3	67.1	BOD	monthly avg	30	188	248.9	BOD	daily max	3	505	958.1					
Dec-13	RDXL	monthly avg	30	12.3	53.1															
Jan-14	RDXL	monthly avg	30	12.3	32	BOD	monthly avg	30	188	338.8	BOD	daily max	3	505	1011.4					
Feb-14	RDXL	monthly avg	30	12.3	37.4	BOD	monthly avg	30	188	411.8	BOD	daily max	8	505	2379.9					
Mar-14	RDXL	monthly avg	30	12.3	43.1	BOD	monthly avg	30	188	271.8	BOD	daily max	8	505	452.4					
Apr-14	RDXL	monthly avg	30	12.3	63.2															
May-14	RDXL	monthly avg	30	12.3	43.9															
Jun-14	RDXL	total	30	12.2	28.10															
Jul-14	RDXL	total	30	12.2	35.50															
Aug-14	RDXL	total	30	12.2	60.10	Solids, total suspended	MAX	1	40	60.00	Chlorine, total residual	MAX	1	0.10	0.10					
Sep-14	RDXL	total	30	12.2	41.90	BOD, 5-day, 20 deg C	AVG	30	188	342.00	BOD, 5-day, 20 deg C	MAX	1	505	5,872.00					
Oct-14	RDXL	total	30	12.2	23.70															
Nov-14	RDXL	total	30	12.2	20.10															
Dec-14	RDXL	total	30	12.2	28.00															
Jan-15	RDXL	total	30	12.2	52.00															
Feb-15	RDXL	total	30	12.2	34.70															
Mar-15	RDXL	total	30	12.2	22.70															
Apr-15	RDXL	total	30	12.2	31.10															
May-15	RDXL	total	30	12.2	13.70	BOD, 5-day, 20 deg C	AVG	30	188	267.00	BOD, 5-day, 20 deg C	MAX	1	505	2,378.00	Solids, total suspended	MAX	1	850	1,227.00
Jun-15	RDXL	total	30	12.2	24.00															
Jul-15	RDXL	total	30	12.2	21.30	BOD, 5-day, 20 deg C	AVG	30	188	469.00	BOD, 5-day, 20 deg C	MAX	1	505	3,804.00	Solids, settleable	MAX	1	.5	1.00
Aug-15	RDXL	total	30	12.2	15.40															
Sep-15	RDXL	total	30	12.2	13.40															
Nov-15	RDXL	total	30	12.2	14.4															
Jan-16	RDXL	total	30	12.2	18.6															
May-16	RDXL	total	30	12.2	18.6															
May-10											BOD, 5-day, 20 deg C	MAX	1	505	229.27	Chlorine, total residual	MAX	1	2	2.20

CERTIFICATE OF SERVICE

The undersigned certifies that a true and correct copy of the attached **CONSENT AGREEMENT AND FINAL ORDER** in the matter of BAE Systems Ordnance Systems, Inc., CWA-04-2016-4517(b) (filed with the Regional Hearing Clerk on 12-08 2016) was served on 12-08, 2016, in the manner specified to each of the persons listed below.

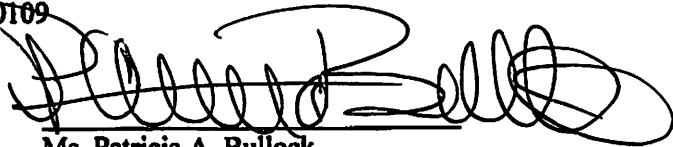
By hand-delivery:

Paul Schwartz
Associate Regional Counsel
Office of Environmental Accountability
U.S. Environmental Protection Agency, Region 4
Atlanta Federal Center
61 Forsyth Street, S.W.
Atlanta, Georgia 30303-8960
(404) 562-9576

By certified mail,
return receipt requested:

Benjamin Kacher
Counsel
BAE Systems Ordnance Systems Inc.
4050 Peppers Ferry Rd.
Radford, VA 24141
(540) 639-7138

Ms. Tisha Calabrese Benton
Director, Division of Water Resources
Tennessee Department of Environment and Conservation
401 Church Street, 6th Floor, L&C Annex
Nashville, Tennessee 37243 -0435
(615) 532-0109



Ms. Patricia A. Bullock
Regional Hearing Clerk
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