

16 October 2023

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Land, Chemicals and Redevelopment Division, RCRA Branch
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VIA ELECTRONIC MAIL

**Subject: Third Quarter 2023 Progress Report
Nammo Defense Systems Inc. Facility
Mesa, Arizona**

Pursuant with Paragraph 34 of the Administrative Order of Consent between Nammo Defense Systems Inc. (NDS) and the United States Environmental Protection Agency Region 9 (EPA) effective 9 February 2021, this report submittal includes a summary of the activities completed during the third quarter (3Q) 2023.

CONTACT INFORMATION AND CHANGES IN PROJECT PERSONNEL

Contact Name and Position	Contact Information	Changes
Jocelyn Clark (EPA, Special Projects Coordinator)	Clark.Jocelyn@EPA.gov (415) 972-3324	No change
Matthew Trask, Director, Ethics and Compliance	mtrask@nammo.us (480) 898-2495	No change
Carole Thompson (NDS, Communications Manager)	CThompson@Nammo.us (480) 898-2565	No change
Fabrizio Mascioni (Geosyntec Consultants, Project Manager)	FMascioni@Geosyntec.com (602) 513-5816	No change

Isaac Roll (Geosyntec Consultants, Senior Engineer)	iroll@geosyntec.com (602) 513-5829	No change
Jeremy Musson (Pinyon Environmental [Pinyon], Groundwater Sampling Project Manager)	musson@pinyon-env.com (303) 980-5200	No change

SIGNIFICANT ACTIVITIES DURING REPORTING PERIOD

Deliverables

Consent Order Project:

- Consent Order Designation of New Project Coordinator Letter – 6/21/2023
- Draft Fact Sheet – 8/3/2023
- Second Quarter 2023 Groundwater Monitoring Report, Former TTU, Nammo Defense Systems Inc., Mesa, Arizona – 8/30/23
- Established Physical Repository – 8/18/2023
- Upload of current approved groundwater monitoring report to current website - 8/31/2023
- Submission of new proposed name for administrative order website – 8/31/2023

Plant 3 and Former Water Bore Out (WBO) Project:

- Technical Memorandum Well Network Sampling Frequency Optimization (Revision 1) – 8/7/2023
- Second Quarter 2023 Groundwater Monitoring Report, Nammo Defense Systems Inc., Plant No. 3 Mesa, Arizona – 9/11/23

Meetings

- Biweekly meetings were conducted with EPA, Arizona Department of Environmental Quality (ADEQ), NDS, and its consultants related to the Consent Order Project.
- Monthly meetings were conducted with ADEQ, NDS, and its consultants related to the Voluntary Remediation Program Project.

Field Activities

- 3Q 2023 groundwater sampling was conducted at the Former TTU well network from 9/5/2023 through 9/7/2023.
- 3Q 2023 groundwater sampling was conducted at the former WBO well network from 6/14/2023 through 6/18/2023.
- On 7/28/23 NT-4 was uncovered and temporarily secured for planned repairs.

Stakeholder Interaction and Meetings

- NA

Notable Analytical Results

Consent Order Project:

- 3Q 2023 Groundwater Monitoring -
 - Preliminary results received; No trigger levels were reached.

Plant 3 and Former WBO Project:

- 3Q 2023 Groundwater Monitoring –
 - Results from 3Q groundwater monitoring have not yet been received.

Action Items for Next Reporting Period

Consent Order Project:

- Submittal of 3Q 2023 Former TTU Groundwater Monitoring Report 60 days from end of quarter (11/30/23).
- Completion of 4Q 2023 Former TTU sampling December 2023.
- Community Relations Work Plan submittal by 10/21/2023.

Plant 3 and Former WBO Project:

- Per the ADEQ VRP approval email dated 8/30/2023 approving the Technical Memorandum Well Network Sampling Frequency Optimization, results of the groundwater monitoring program will be documented semiannually in a 2Q semiannual report, and a 4Q annual report. Monitoring well NT-4 was found to be buried during 2Q sampling as a result of construction activities. Attempts to uncover the well will be made in 3Q.
- Commence installation of NT-19 and NT-20 (October 2023)

Remediation Systems Updates

Consent Order Project – Interim Response Hydraulic Containment System:

- The evaporator system was down for maintenance after the week of 6/26 due to leaks in the main tank resulting from extensive corrosion damage due to the aggressive nature of perchlorate salts. The system was cleaned out in preparation of repairs on 7/10. Perchlorate residue from the system was analyzed to determine whether or not it would be safe to weld in close proximity; the residue was found to be inert. Repairs were initially completed on 7/31 and the system was restored to service briefly starting on 8/2, with further repairs for a gas issue on 8/16, before being out of service through the rest of the quarter.
- 6,250 gallons of water was collected from the wells by a contractor on 9/7, 9/21, and 9/28 for offsite disposal.

Plant 3 and Former WBO Project – Hydraulic Containment FBR System

The hydraulic containment system implemented at the former WBO pits area uses an FBR system to treat water extracted from one or two extraction wells (EXT-1 and EXT-2), where EXT-2 is typically held in reserve while EXT-1 is operated. Since 5/22/23 the FBR system operated continuously at an average flow rate of approximately 400 gallons per minute. Downtime during the month of September was not substantial; the system was offline for approximately a day to accommodate the addition of carbon to the reactors and a concurrent repair to a leaking flange. A semiannual progress report further describing performance and operations and maintenance responsibilities will be submitted to ADEQ by February 28, 2024.

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If you have any questions about this report, please contact Fabrizio Mascioni with Geosyntec.

Sincerely,



Fabrizio Mascioni, R.G. (AZ 65652)
Principal

Copies to: Matthew Trask, NDS
Kyle Johnson, ADEQ
Antony Leverock, ADEQ
Robin Thomas, ADEQ
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