

NAMMO DEFENSE SYSTEMS INC.

September 1, 2021

U.S. Environmental Protection Agency – Region 9
EPA Pacific Southwest San Francisco Office
75 Hawthorne Street
San Francisco, CA, 94105

NDS Quarterly Progress Report

To Whom It May Concern:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted.

Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete.

I have no personal knowledge that the information submitted is other than true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature:



Name:

Stephen Cummings

Title:

Health, Environment, Safety & Security (HESS) Engineer

Date:

09/01/21

17 August 2021

Mr. William Frier
Special Projects Coordinator
US Environmental Protection Agency Region 9
San Francisco, California

**Subject: Updated First and Second Quarter 2021 Progress Report Based on
EPA 6 August 2021 Comments
Nammo Defense Systems Inc. Facility
Mesa, Arizona**

Dear Mr. Frier,

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, states that NDS shall provide EPA with quarterly progress reports. Based on the effective date of this order, and prior communications with EPA, this first report is submittal includes both first and second quarter 2021 activities. This report was updated based on EPA comments dated 6 August 2021.

Contact Information and Changes in Project Personnel

Contact Name and Position	Contact Information	Changes
Patrick Frier (EPA, Special Projects Coordinator)	[REDACTED]	N/A
Angel Soto (NDS, HESS Director)	[REDACTED]	N/A

Carole Thompson (NDS, Communications Manager)	[REDACTED] [REDACTED]	N/A
Fabrizio Mascioni (Geosyntec Consultants, Project Manager)	[REDACTED] [REDACTED]	N/A
Stephen Cummings (NDS, Health, Environment, Safety and Security Engineer)	[REDACTED] [REDACTED]	N/A

Significant Activities During Reporting Period

Deliverables

Consent Order Project:

- Finalized Consent Order agreement – 9 February 2021
- Conceptual Site Model Submittal – 10 May 2021
- Fact Sheet Submittal – 27 May 2021
- Project Website Submittal – 27 May 2021
- 4Q 2020 TTU Groundwater Monitoring Report – 21 May 2021
- 1Q 2021 TTU Groundwater Monitoring Report – 24 June 2021

Plant 3 and Former WBO Project:

- Final Remedial Investigation Work Plan, Plant 3 and Former WBO Facility – 20 May 2021
- 4Q 2020 WBO Groundwater Monitoring Report – 26 May 2021

Meetings

- Weekly meetings between EPA, ADEQ, and NDS related to the Consent Order Project;
- Monthly meetings between ADEQ and NDS related to the WBO project

Field Activities

- Completion of 1Q 2021 groundwater monitoring/sampling at the Former Thermal Treatment Unit (TTU) well network during 29 to 30 March 2021;
- Completion of 2Q 2021 groundwater monitoring/sampling at the Former Thermal Treatment Unit (TTU) well network during 5 to 6 May 2021
- Completion of 1Q 2021 groundwater monitoring/sampling at the former Water Boreout (WBO) well network during 20 to 24 March 2021;
- Completion of 2Q 2021 groundwater monitoring/sampling at the former Water Boreout (WBO) well network during 8 to 13 May 2021;
- Sampling of 10 indoor air sampling locations for VOCs at Plant 3 Line I Building (26 March 2021).
- Drilling of two deep borings at Plant 3 for VOC investigation, including soil vapor sampling, installation of one dual-nested SVE well (SVE-01), and one dual nested groundwater monitor well (NT-18) completed during 26 April and 25 June 2021.

Stakeholder Interaction

Consent Order Project: Status update meeting with SRPMIC and NDS hosted at NDS Facility on 30 June 2021.

Plant 3 and Former WBO Project: Annual Update Meeting with Boeing hosted on 22 April 2021.

Notable Analytical Results

- VOCs detected above the AWQS in hydrobunch samples collected during the Plant 3 VOC investigation. TCE (8.8 µg/L) and 1,1-DCE (11 µg/L) detected at 215-ft bgs in the SVE-1 boring above their respective AWQS of 5.0 µg/L and 7.0 µg/L, respectively. TCE (74 µg/L) and 1,1-DCE (52 µg/L) detected above the AWQS at 142-ft bgs in the SVE-1 boring.

Other Relevant Changes or Updates

Consent Order Project: N/A

Plant 3 and Former WBO Project: N/A

Significant Activities Anticipated During Upcoming Reporting Period

Consent Order Project:

- Submittal of a Facility Current Conditions Report – 8 August 2021
- Submittal of 2Q 2021 TTU Groundwater Monitoring Report – 31 August 2021
- Completion of 3Q 2021 TTU Sampling – July/August 2021

Plant 3 and Former WBO Project:

- Submittal of 2Q 2021 WBO Groundwater Monitoring Report – 31 August 2021
- Completion of 3Q 2021 WBO Sampling – July/August 2021
- Completion of access agreements from City of Mesa for installation of three monitoring wells – well installations estimated between September through December 2021.
- Completion of access agreements and soil sampling at Drake Materials facility – Complete sampling by 9/17/21.

Remediation System Updates

Consent Order Project - P&T System

- TTU-1 and TTU-2 were actively pumping during the reporting period, except for the following dates during which the wells were temporarily shut off.
 - Both wells shut off during 1Q 2021 quarterly sampling from 18 to 30 March 2021;
 - Both wells shut off during 2Q 2021 quarterly sampling 29 April and 6 May 2021; and
 - The evaporator treatment unit was down from 9 to 15 June 2021 due to system lockout and resetting.
- TTU-11 was shut off in October 2020 prior to planned injection as part of an *in situ* bio-pilot. The well is planned to remain inactive due to post bio-pilot performance monitoring at TTU-20, which will be completed as part of the month six post injection monitoring event scheduled in September 2021.
- Total volume treated ~46,000 gallons.