

## ERRATA SHEET

### *Final Environmental Impact Statement for Sentinel (GBSD) Deployment and Minuteman III Decommissioning and Disposal*

On March 31, 2023, the Air Force posted notice in the Federal Register (86 FR 19302) for the availability of the *Final Environmental Impact Statement for Sentinel (GBSD) Deployment and Minuteman III Decommissioning and Disposal*. The EPA provided comments on the Final EIS via a letter received on May 1, 2023. In this letter, the EPA acknowledged satisfactory resolution of comments they provided on the Draft EIS in all areas except air quality, where they provided two non-substantive comments; the comments, and the Air Force's clarifying responses, are provided below.

**EPA Air Quality Comment - 1:** We appreciate the response to our comments provided in the FEIS. The responses indicate that changes have been made to address our comments. In particular, the FEIS now presents emissions for the construction and conversion of each facility individually (see Table 3.1-4, page 3-11). We find this information valuable to better understand what the emissions would be for construction and conversion of the entire Missile Wing (MW) at each Air Force base (AFB). The information is also relevant to the analysis for General Conformity. However, it is not clear how the emissions for off-base construction have been included in emissions totals for each AFB. Page 3-8 indicates that:

“The Air Force used its Air Conformity Applicability Model (ACAM) to estimate emissions that could potentially result from the Proposed Action throughout the region (Table 3.1-3). These **estimates include on- and off-base** construction, additional personnel, heating proposed buildings, and operation of backup generators. As a reasonable upper bound, the Air Force assumed that all on-base construction activities would be compressed into a single 12-month period and combined with the total emissions for all activities throughout the missile field in the peak construction year. **During the peak year, it was assumed there would be three MAFs, 36 LFs, five communication towers, three laydown areas, and one workforce hub constructed simultaneously in any attainment area.**” (Emphasis added).

Using these assumptions and the emissions per activity listed in Table 3.1-4, the resulting NO<sub>x</sub> emissions for three MAFs, 36 LFs, five communication towers, three laydown areas and one workforce hub is 75.4 tpy NO<sub>x</sub>. In contrast, Table 3.1-3, which is stated to be inclusive of “on- and off-base” activities, presents F.E. Warren NO<sub>x</sub> emissions of 6.6 tpy. The Draft EIS (DEIS) estimate for this same base was 23.9 tpy NO<sub>x</sub>. It is unclear why the emissions estimates have been reduced and how these estimates for F.E. Warren, Malmstrom, and Minot AFBs could be inclusive of the off-base construction activities. Therefore, we have the following recommendation to simplify the information provided in order for the reader and decision maker to understand the level of emissions associated with the action.

- Present emissions to complete *all* construction at each MW (e.g., conversion of 15 MAFs and 150 LFs at each MW as well as the other activities associated with the action such as construction of communication towers, vehicle emissions, etc.)
- Based on the timeline for completion of these actions (e.g., five years), divide total emissions by the duration of the project to derive tpy emissions for the MW construction activities.

**Response.** The Air Force appreciates the EPA’s identification of the issues related to the emissions outlined in Tables 3.1-3, 3.1-7, and 3.1-9 in the air quality sections of the Final EIS. Tables 3.1-3, 3.1-7, and 3.1-9 has been reformatted for clarity to show the complete analyzed air emission data for all construction at each MW (e.g., conversion of 15 MAFs and 150 LFs at each MW as well as the other activities associated with the action such as construction of communication towers, vehicle emissions, etc.) provided to the decision maker for consideration, posted to the Sentinel website at <https://gbsdeis.com/final-eis>, and will be posted to the administrative record for the EIS project via this errata sheet. It should be noted that the conclusions do not change under any alternative, and air quality impacts were based on the correct emissions. This clarification does not change the analysis of effects on the human environment, nor any determination under the general conformity rule.

In response to the EPA’s air quality comment, the Air Force reformatted Tables 3.1-3, 3.1-7, and 3.1-9, Estimated Peak Annual Emissions for each MW as shown below. This errata sheet is posted as part of the administrative record to reflect the reformatted tables. It should be noted, again, that the conclusions do not change under any alternative, and air quality impacts were based on the correct emissions. This clarification does not change the analysis of effects on the human environment, nor any determination under the general conformity rule. All air quality mitigation measures outlined in the final EIS have been carried forward in the mitigation and monitoring plan for tracking, implementation, and enforcement.

**Table 3.1-1. Estimated Peak Annual Emissions for F.E. Warren AFB and Camp Guernsey Compared to Significance Indicators**

Pollutant	Emissions (tpy)				Insignificance indicator (tpy)	Exceedance (Yes or No)
	Construction			Operations		
	On-base	Off-Base	Total			
Volatile organic compounds (VOCs)	4.1	10.9	14.9	2.3	250	No
Oxides of nitrogen (NO <sub>x</sub> )	6.6	59.2	65.8	3.9	250	No
Carbon monoxide	28.5	64.4	93.0	2.9	250	No
Oxides of sulfur (SO <sub>x</sub> )	0.0	0.2	0.2	0.5	250	No
Fine particulate matter (PM <sub>10</sub> )	17.9	41.0	58.9	0.7	250	No
Fine particulate matter (PM <sub>2.5</sub> )	0.2	2.2	2.4	0.7	250	No
Lead (Pb)	0.0	0.0	0.0	< 0.1	25	No
Carbon dioxide equivalent (CO <sub>2e</sub> )	3,101.9	18,331.9	21,433.8	1,912.2	-	-

Sources: (Air Force 2020a, USEPA 2020f).

Note: Construction emissions are for the peak year for each pollutant and operational emissions do not include the decommissioning of existing MMIII on-base facilities.

**Table 3.1-7. Estimated Annual Emissions for Malmstrom AFB Compared to Significance Indicators**

Pollutant	Emissions (tpy)				Insignificance indicator (tpy)	Exceedance (Yes or No)
	Construction			Operations		
	On-base	Off-Base	Total			
Volatile organic compounds (VOCs)	2.7	11.3	14.0	2.3	250	No
Oxides of nitrogen (NO <sub>x</sub> )	5.6	61.9	67.5	3.5	250	No
Carbon monoxide	15.8	66.8	82.6	2.6	250	No
Oxides of sulfur (SO <sub>x</sub> )	0.0	0.2	0.2	0.5	250	No
Fine particulate matter (PM <sub>10</sub> )	17.9	43.2	61.2	0.6	250	No
Fine particulate matter (PM <sub>2.5</sub> )	0.2	2.3	2.5	0.6	250	No
Lead (Pb)	0.0	0.0	0.0	< 0.1	25	No
Carbon dioxide equivalent (CO <sub>2e</sub> )	2,135.6	19,104.6	21,240.2	1,726.7	-	-

Source: (Air Force 2020a).

Note: Construction emissions are for the peak year for each pollutant and operational emissions do not include the decommissioning of existing MMIII on-base facilities.

**Table 3.1-9. Estimated Annual Emissions for Minot AFB Compared to Significance Indicators**

Pollutant	Emissions (tpy)				Insignificance indicator (tpy)	Exceedance (Yes or No)
	Construction			Operations		
	On-base	Off-Base	Total			
Volatile organic compounds (VOCs)	2.8	10.9	13.7	2.4	250	No
Oxides of nitrogen (NO <sub>x</sub> )	5.6	59.5	65.1	4.6	250	No
Carbon monoxide	16.1	64.8	80.9	3.4	250	No
Oxides of sulfur (SO <sub>x</sub> )	< 0.1	0.2	0.2	0.5	250	No
Fine particulate matter (PM <sub>10</sub> )	17.9	41.2	59.2	0.7	250	No
Fine particulate matter (PM <sub>2.5</sub> )	0.2	2.2	2.4	0.7	250	No
Lead (Pb)	< 0.1	< 0.1	< 0.1	< 0.1	25	No
Carbon dioxide equivalent (CO <sub>2e</sub> )	2,138.3	18,433.1	20,571.4	2,743.4	-	-

Source: (Air Force 2020a).

Note: Construction emissions are for the peak year for each pollutant and operational emissions do not include the decommissioning of existing MMIII on-base facilities.

**EPA Air Quality Comment - 2:** We also wish to make the Air Force aware that since the issuance of the draft, the Denver Metro North Front Range (DMNFR) ozone nonattainment area has again been reclassified from Serious to Severe, effective

November 7, 2022 (see 40 C.F.R. § 81.306 for the 2008 8-hour ozone National Ambient Air Quality Standard (NAAQS); see also Federal Register Vol. 87, No. 196, page 60926 published October 7, 2022). This change further reduces the General Conformity de minimis thresholds for ozone precursors from 50 tpy to 25 tpy.

Response: The Air Force estimated NO<sub>x</sub> emissions for construction in the area to be 22.8 tpy which is below the de minimis thresholds for both the serious and the severe designations. This estimate conservatively assumes that one MAF, 11 LFs, 5 communication towers, and 17 miles of utility corridors in the area would be completely constructed within a given year, which is not anticipated at this time. Accordingly, no conformity determination is required.