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November 13, 2020

Mr. Nathan Freeman
New York State Department of Environmental Conservation
Division of Environmental Remediation, Remedial Bureau B
625 Broadway, 12th Floor
Albany, NY 12233-7016

Re: Draft Statement of Basis
Operable Unit Number 03: Air Deposition Area 2 (Off-Site)
FMC Corporation – Middleport, New York
USEPA ID No. NYD002126845
DER Site No. 932014

Dear Mr. Freeman:

FMC Corporation (“FMC”) has reviewed the New York State Department of Environmental Conservation’s (the “Department”) Draft Statement of Basis, Operable Unit Number 03: Air Deposition Area 2 (Off-Site), Middleport, Niagara County, USEPA ID No. NYD002126845, NYSDEC Site No. 932014, dated September 2020 (the “OU3 DSOB”) and the associated September 2020 Fact Sheet. As you know, this process is being managed consistent with the Order on Consent and Administrative Settlement (Index No. CO 9-20140625-40) between FMC and the Department, effective June 6, 2019 (the “Order”),¹ including all associated exhibits and all documents and requirements that have been incorporated by reference. Based on FMC’s review of the OU3 DSOB, it submits the following public comments as part of the Department’s regulatory process associated with assessing potential clarifications and/or revisions to be added to the decision document and/or the selected remedy in OU3.

FMC’s comments have been separated into two categories – general and specific. Each set of comments is included below, along with relevant and appropriate cross-references to the OU3 DSOB, the Order and/or applicable guidance or regulations, as may be appropriate. Note that the cross-references included in this submittal are not meant to be exhaustive in nature.

¹ Prior to the Order being in effect, all work completed for Operable Unit 3 (“OU3”), including the development of the September 2015 draft Corrective Measures Study (the “CMS Report”), was conducted pursuant to the now supplanted Administrative Order on Consent (Docket No. IIRCRA903008(h)02090) by and among FMC, the United States Environmental Protection Agency (“USEPA”), and the NYSDEC (the “AOC”). Section I.C. of the Order states that all prior approvals, authorizations, and determinations pursuant to the AOC that are applicable to the work in site-related operable units are all still applicable.

General Comments

The OU3 DSOB proposes a remedy (Alternative 3: Excavation to 20 ppm Arsenic) that was not included in the CMS Report, which the Department accepted for technical completeness purposes pursuant to the Order. As Alternative 3 is significantly different from the alternatives summarized in the CMS Report, the final Statement of Basis requires further adjustment in order to be consistent with the scope of the regulatory analysis required by applicable regulations and guidance, and needed for any interested party to understand the full scope of the selected remedy. This point serves as the overarching basis for FMC's general comments listed below:

- Properties Subject to Remediation:

As discussed in Exhibit B to the OU3 DSOB, the remedy presumes the excavation and off-site disposal of all soils exceeding the site-specific arsenic soil cleanup objective of 20 parts per million ("ppm"). However, this proposition fails to take into account three important circumstances:

- Property R2a: The OU3 – Air Deposition Area 2 (Report Volume X) RCRA Facility Investigation report submitted in 2012 does not include sampling data and analysis along the southern Erie Canal property (R2a), which is owned by the New York State Canal Corporation. This southern segment of property R2a was added to the scope of OU3 in the Order. Therefore, insufficient data is present to assess the scope of the remedial action at this property location, which should be considered and identified in the final statement of basis and the selected remedy.
- Property R2d: Pursuant to the then-controlling AOC, a No Further Action ("NFA") determination was issued for property R2d by letter dated January 29, 2013. A copy of the NFA letter is attached to this submittal as Exhibit A. Accordingly, it is not clear why the NFA determination was not identified in the OU3 DSOB, with property R2d expressly excluded from the area subject to remediation. FMC would note that the maximum soil arsenic concentration detected on property R2d is 20.3 ppm
- Property Owner Acceptance: Consistent with the Final Statement of Basis for Air Deposition Area # 1 (OU2 and OU4) and Culvert 105 (OU5), FMC Corporation, Middleport, New York, USEPA ID No. NYD002126845, NYSDEC Site No. 932014, dated May 24, 2013 (the "FSOB"), the Department considered Middleport community comments and concerns that were raised associated with site remediation and impacts to existing property and property-related features. Based on these comments and discussions, the FSOB includes a discussion section on the "Community/Property Owner Acceptance" criterion. This section expressly addressed the ability for property owners to seek limitations on the scope of on-site

remediation to account for property specific features, as well as acknowledging the ability of property owners to refuse to grant legal access to have their property remediated, therefore allowing the property owner to determine whether to accept or refuse remediation of its property.

The Community Acceptance prong in the Basis for Selection section of Exhibit D to the OU3 DSOB does contemplate consideration to accommodate the preservation of specific features at the property. However, those circumstances are prescriptive in nature, unlike the FSOB, which allows property owners broad discretion as to the scope of features to be maintained. Most importantly, there is no discussion of a property owner's right to either accept or refuse to allow legal access for remediation to occur. Given the importance of this issue to the Middleport community, it is clear that this same right must be included as part of the OU3 remedy. A review of the various factors to be considered as part of the Department's regulatory process for selecting a remedy supports this proposition. Therefore, this right must be expressly stated in the final statement of basis issued for OU3.

▪ Scope of the Selected Remedy:

- Green Remediation/Ecological Considerations: Alternative 3 is at odds with the green remediation principles that are discussed in the remedial design section of the proposed remedy in the OU3 DSOB, as well as Division of Environmental Remediation ("DER")-31. It also appears to be inconsistent with the obligation to appropriately consider and implement ecological risk and green remediation techniques, consistent with Section VIII of the Order and its attendant Exhibit E (Section E. of Exhibit B to the Order), as well as DER-10 requirements. While the OU3 DSOB does reference green remediation considerations to be assessed as part of the remedy selection process (e.g. the need to consider the environmental impacts of treatment technologies, maximize and create habitat value where possible, foster green and healthy communities and working landscapes that balance ecological, economic and social goals, amongst others), it fails to describe how the selected remedy addresses these considerations.² For instance, there is not a clear discussion as to how the potential removal of 57,000 cubic feet of soil, especially in heavily vegetated/forested and habitat-friendly areas, would meet the ultimate goals of these criterion. Furthermore, the impacts that will be felt by

² DER-31 includes a provision on documentation which states that the decision documents need to "describe the green remediation principles considered in the evaluation and/or selection of the remedy . . . present or reference any qualitative and/or quantitative sustainability information generated in support of remedy selection, and . . . discuss how the impacts can be minimized during implementation."

implementing the removal remedy, such as increased truck traffic, the need to remove additional habitat and brush in areas not subject to the remedial work to allow for equipment and personnel access, and the increased risk to human health and workers during the course of implementation of the remedy, appears to greatly exceed the limited potential incremental benefit.

By way of example, property R2d is a vacant wooded parcel, with densely vegetated areas (mature trees and bushes) that is a well-suited habitat for birds and mammals. Soil arsenic concentrations ranged from 2.7 ppm to 36.2 ppm, with an average of 18.3 ppm at the surface (0" - 3"). FMC's ecological risk evaluation included in the CMS Report did not identify any meaningful risk to wildlife, mature trees/vegetation, or other ecological resources. When comparing this finding against the amount of direct and indirect impacts that would occur to these and the surrounding areas by undertaking a removal action, the destruction of this habitat is not warranted, consistent with the overarching green remediation and sustainability considerations required as part of the remedy selection process. Similarly, undertaking work within the Erie Canal sidewalls raises significant concerns regarding wall stability within the area and potential damage to a water-based habit and culturally beneficially area. Accordingly, the Erie Canal Corporation may not agree to allow such work to occur, whether in whole or in part.

For the foregoing reasons, FMC would request that the proposed remedy include an option(s) that would preserve and/or minimize destruction of existing valuable habitat beyond potential flexibility based on property owner preference, and take into account the potential expanded use of flexibility and/or institutional controls for certain other areas. This should be addressed within the final statement of basis, where the more in-depth discussion regarding the green remediation and ecological analysis is required to be addressed.

- Restoration: Alternative 3 calls for the replacement of trees at the discretion of the property owner. However, the alternative fails to take into account that certain areas subject to remedy implementation are in densely vegetated areas that include mature trees. It is not feasible that all trees in these areas can be replaced, nor would doing so be possible without greatly impacting the surrounding areas. In areas where it is possible to appropriately replace trees without residual impact, there should be clarity provided that mature landscaped trees cannot be replaced in-kind, but rather, nursery stock would be appropriate, consistent with the scope of remedial work completed in the Middleport community to date.

Specific Comments

FMC would also note the following additional comments for the Department's consideration:

- Cost Estimate Information: Clarification needs to be provided regarding the estimated present worth, construction, and annual costs to implement Alternative 3, given the inconsistencies included in the OU3 DSOB and the lack of a detailed assessment in the CMS Report. This information is one of the factors required to be considered as part of the remedy selection process, and is also otherwise required for the responsible party and/or any interested party to understand the magnitude of financial impact caused by the selected remedy.

Exhibit B and Exhibit C of the OU3 DSOB identify the total present worth cost and capital cost of Alternative 3 as being \$14,450,000.00, along with an annual cost of \$50,000.00. However, Exhibit D identifies the cost to construct the remedy as being estimated at \$2,350,000.00, with an estimated present worth and annual cost consistent with the other sections of the OU3 DSOB. It is not clear how any of these estimates appropriately tie together, especially without any type of focused estimate breakdown and summary of costs having been included. DER-10 sets forth criteria that must be evaluated to determine the overall cost effectiveness of an alternative remedy for selection process, including "all direct and indirect capital costs and engineering costs for the construction of all facilities and process equipment, labor, materials, construction equipment and services, land purchase and land preparation/development and relocation expenses." Accordingly, a more detailed breakdown is required.

- CMS Report: While Exhibit B of the OU3 DSOB notes that the Department has accepted the CMS report for technical completeness, and that it reviewed and considered the extent of the information contained within it as part of its selection of Alternative 3, there is no detailed discussion of its contents relative to the selected remedy. Furthermore, there does not appear to be general access to the CMS Report to those interested in assessing the same information as the Department, as a review of the project document website that was included in the OU3 DSOB and the associated September 2020 Fact Sheet does not include the CMS Report.

As the Department is aware, the Middleport community is very interested in ongoing impacts to the area and remedial decision-making associated with the broader project. Consistent with the Department's guidance on Citizen Participation (DER-23), the community is to be appropriately engaged regarding remedial decision-making, which is reaffirmed within the Order. FMC concurs with the Department's focus on the importance of interested parties being provided with access to the information and documentation used to lay out the premise

for the broader remedial analysis, including the attendant assessments and analyses that were prepared. Therefore, FMC requests that the Department provide further discussion of the CMS Report within the final statement of basis, along with providing access to the entire document.

- Total Volume of Soil Excavation: In several locations throughout the OU3 DSOB, Alternative 3 is described as including the removal of 57,000 cubic yards of soil. However, there is no discussion as to the genesis of how this number was derived, including any assumptions made by the Department in identifying it. Further clarity is needed regarding this estimate, given that an underlying analysis is not included in the CMS Report, so that parties can understand the nature of how it was presumed and weighed against the various remedy selection factors. Given the issues raised in this submittal regarding properties R2a and R2d, the potential opportunity for tilling/soil blending, and the potential for property owner refusal, any reference to the approximate amount of soil removal should be qualified, regardless.
- Section 5.5 [Summary of the Remediation Objectives]: This section includes a remedial action table that only identifies soil removal to a secure landfill with backfill as the “Remedial Action” to address the Remediation Objectives. As potential soil blending/tilling or institutional/engineering restrictions have been identified as components of the proposed remedy in the OU3 DSOB, there should be an additional objective allowing for these types of circumstances.

FMC appreciates NYSDEC's time and consideration of this submission. By virtue of this submission, FMC does not waive, and expressly reserves, all of its rights as it pertains to any determination(s) made in the OU3 DSOB and/or any final selected remedy or decision document.

Please contact me via email at jonathan.bucca@fmc.com or telephone at 215-299-6358 if you have any questions or would like to discuss the substance of this submission further.

Sincerely,



FMC CORPORATION
Jonathan Bucca, P.E.
Remediation Project Manager

ec: A. Guglielmi, Esq., NYSDEC OGC Albany
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 S. Selmer, NYSDOH BEEI Albany
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 V. Hollinger, Esq., FMC Philadelphia
 M. Hecker, Esq., Hodgson Russ Buffalo
 W. Lachell, GEI

EXHIBIT A



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2
290 BROADWAY
NEW YORK, NY 10007-1866

January 29, 2013

Mr. Todd Roberts
4263 Salt Road
Medina, NY 14103

Re: FMC Environmental Investigation of Middleport Area Soils
Status of Individual Properties

Dear Mr. Roberts:

The FMC Corporation has recently (2009) completed an environmental investigation into the levels of arsenic in soil on Middleport area properties located within Air Deposition Area II (North of the Erie Canal and East of the Niagara/Orleans County Line. This includes your property located at Telegraph Road (Sheet 78.00, Block 3-5.1). Your cooperation during this investigation process was instrumental in its performance and we thank you for your patience.

The United States Environmental Protection Agency (USEPA), the New York State Department of Environmental Conservation (NYSDEC), in consultation with the New York State Department of Health (NYSDOH), hereafter referred to as the "governmental agencies", have overseen this FMC environmental investigation and are providing you this letter to summarize its outcome with respect to your property's soil.

A sketch showing the locations of the soil samples previously collected from your property and a table presenting the arsenic results for each sample, are enclosed. The results show that samples obtained from your property contained arsenic levels that are consistent with area "background levels" determined from the February 2003 *Report on the Development of Arsenic Background in Middleport Soils* (the Gasport, NY study). The "background levels" from the Gasport study are being used to represent background arsenic levels in the Middleport area (i.e., arsenic levels that would be expected to be present in Middleport area soils if there were no additional arsenic from a contamination source). The governmental agencies have estimated 20 parts per million (PPM) to generally be the upper limit of these background levels. There may be some arsenic levels on your property that are above 20 ppm and they may represent normal sampling variability but are still considered to be consistent with background levels. Therefore, we believe the levels of arsenic found in your soil samples are generally consistent with what we would expect to find in this area.

Based on our evaluation, we concluded that there is no reason for you to restrict the use of your property because of the levels of arsenic found, and that no further sampling or other actions are necessary at this time. We encourage you to keep this letter and the enclosed arsenic soil data for your records.

If you have any questions or would like to discuss any matters related to your sampling results, you may call Michael Infurna (USEPA) at (212) 637-4177, Sally Dewes (NYSDEC) at (518) 402-9768, or Nathan Freeman (NYSDOH) at 1-(800) 458-1158, ext. 2-7860.

Sincerely,

Michael Infurna S.D. *Michael Inf*

Sally Dewes, P.E.
Project Manager
Div. of Environmental
Remediation
NYSDEC

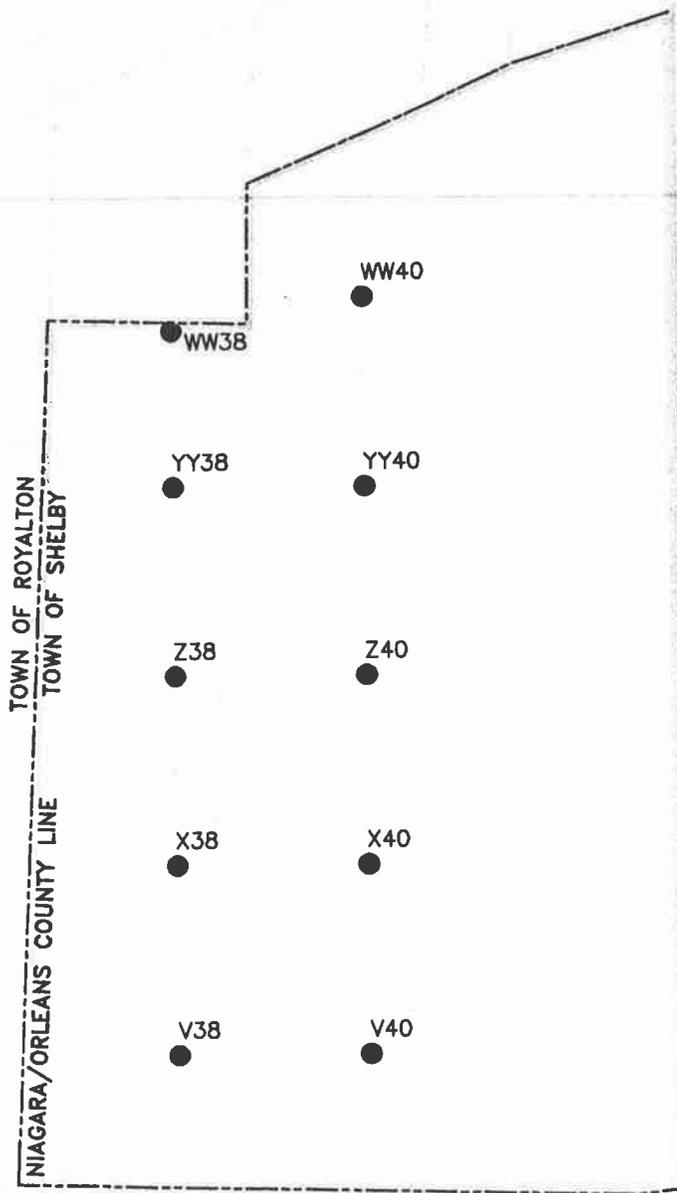
Michael Infurna
Project Manager
Emergency & Remedial
Response Division
USEPA

Enclosures

CITY: SYRACUSE, NY DIV: GROUP: ENV/IM/DV DB: P. LISTER ID: P. LISTER PM/TM: D. WRIGHT L/R: ON--OFF-REF. (RZ)
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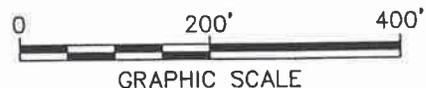
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IMAGES: PROJECTNAME: --

NIAGARA/ORLEANS COUNTY LINE
TOWN OF ROYALTON
TOWN OF SHELBY



LEGEND:

- APPROXIMATE PROPERTY LINE
- SOIL SAMPLE LOCATION



NOTE: ALL LOCATIONS AND PROPERTY BOUNDARIES SHOWN ARE APPROXIMATE AND SUBJECT TO VERIFICATION.

FMC CORPORATION - MIDDLEPORT, NEW YORK
RCRA FACILITY INVESTIGATION - VOLUME X

XX TELEGRAPH ROAD
PARCEL 78.00-3-5.1



FIGURE
R2d

**TABLE R2d
SOIL ARSENIC ANALYTICAL RESULTS
XX TELEGRAPH ROAD, PARCEL 78.00-3-5.1**

**RCRA FACILITY INVESTIGATION - VOLUME X
FMC CORPORATION - MIDDLEPORT, NEW YORK**

Sample ID	Sample Depth (inches)	Sample Date	Soil Arsenic Concentration (mg/kg)				Average
			FMC Samples		NYSDEC Spilt Samples		
			Primary	Duplicate	Primary	Duplicate	
R2d-V38	0 - 3	4/21/2009	17.1 J	--	--	--	17.1
	3 - 6	4/21/2009	18.1 J	--	--	--	18.1
	6 - 9	4/21/2009	15.3 J	--	--	--	15.3
	9 - 12	4/21/2009	5.2 J	--	--	--	5.2
R2d-V40	0 - 3	4/21/2009	16.4 J	--	17.4	--	16.9
	3 - 6	4/21/2009	20.0 J	--	--	--	20.0
	6 - 9	4/21/2009	16.3 J	--	--	--	16.3
	9 - 12	4/21/2009	3.6 J	--	--	--	3.6
R2d-WW38	0 - 3	4/21/2009	14.4	--	--	--	14.4
	3 - 6	4/21/2009	16.3	--	--	--	16.3
	6 - 9	4/21/2009	15.6	--	--	--	15.6
	9 - 12	4/21/2009	19.7	--	--	--	19.7
R2d-WW40	0 - 3	4/21/2009	15.2	--	--	--	15.2
	3 - 6	4/21/2009	14.8	--	--	--	14.8
	6 - 9	4/21/2009	13.2	--	--	--	13.2
	9 - 12	4/21/2009	5.7	--	--	--	5.7
R2d-X38	0 - 3	4/21/2009	13.7 J	13.1	--	--	13.4
	3 - 6	4/21/2009	20.3 J	--	--	--	20.3
	6 - 9	4/21/2009	13.4 J	--	14.2	--	13.8
	9 - 12	4/21/2009	4.5 J	--	--	--	4.5
R2d-X40	0 - 3	4/21/2009	18.8 J	--	--	--	18.8
	3 - 6	4/21/2009	14.1 J	--	--	--	14.1
	6 - 9	4/21/2009	11.3 J	--	--	--	11.3
	9 - 12	4/21/2009	4.9 J	--	--	--	4.9
R2d-YY38	0 - 3	4/21/2009	16.5 J	--	13.9	--	15.2
	3 - 6	4/21/2009	18.2 J	17.7	--	--	18.0
	6 - 9	4/21/2009	11.0 J	--	--	--	11.0
	9 - 12	4/21/2009	6.7 J	--	--	--	6.7
R2d-YY40	0 - 3	4/21/2009	16.3	--	--	--	16.3
	3 - 6	4/21/2009	13.5	--	--	--	13.5
	6 - 9	4/21/2009	16.7	--	--	--	16.7
	9 - 12	4/21/2009	5.7	--	--	--	5.7
R2d-Z38	0 - 3	4/21/2009	15.8 J	--	--	--	15.8
	3 - 6	4/21/2009	15.1 J	--	--	--	15.1
	6 - 9	4/21/2009	12.5 J	--	--	--	12.5
	9 - 12	4/21/2009	4.1 J	--	--	--	4.1

**TABLE R2d
SOIL ARSENIC ANALYTICAL RESULTS
XX TELEGRAPH ROAD, PARCEL 78.00-3-5.1**

**RCRA FACILITY INVESTIGATION - VOLUME X
FMC CORPORATION - MIDDLEPORT, NEW YORK**

Sample ID	Sample Depth (Inches)	Sample Date	Soil Arsenic Concentration (mg/kg)				Average
			FMC Samples		NYSDEC Spilt Samples		
			Primary	Duplicate	Primary	Duplicate	
R2d-Z40	0 - 3	4/21/2009	10.0 J	--	--	--	10.0
	3 - 6	4/21/2009	14.0 J	--	--	--	14.0
	6 - 9	4/21/2009	6.8 J	--	5.5	--	6.2
	9 - 12	4/21/2009	3.3 J	--	--	--	3.3

Notes:

1. Soil arsenic concentrations are presented in milligrams per kilogram (mg/kg); equivalent to parts per million (ppm).
2. FMC Duplicate Samples were collected, to verify that the FMC Primary Sample collection and analysis methods produced consistent results, at a rate of approximately 5% (i.e., for every 20 FMC Primary Samples collected during a sampling event (may involve more than one property), one FMC Duplicate Sample was also collected).
3. NYSDEC Split Samples were collected, to verify that sample collection and analysis procedures were not biased over the course of the sampling event, at a rate of approximately 10% (i.e., for every 10 FMC Primary Samples collected during a sampling event (may involve more than one property), one NYSDEC Split Sample was also collected).
4. J = Concentration is estimated.