Appendix H

Extent of Remediation
for Each Corrective
Measures Alternative

Appendix H

Extent of Remediation for Each Corrective Measures Alternative

I. Purpose

This appendix presents the following information for each Corrective Measures Alternative (CMA) for the Suspected Air Deposition and Culvert 105 Study Areas:

- Post-remediation soil arsenic concentration goals for CMAs 1 through 8 (Table H-1)
- Extent of remediation on a property-specific basis, including identification of the individual properties to be remediated, the estimated post-remediation soil arsenic concentrations, and the estimated soil volumes to be remediated (Table H-2; Figures H-2 through H-8d)
- Comparison as requested by the Agencies of data averaging methods for eight large properties under CMA 8 to identify the difference in soil volumes under the property-wide and the grid sub-area methods (Table H-3; Figures H-9a through H-9e)
- Extent of the remediation for both study areas broken down by property usage (as defined in Appendix C), including a summary of the post-remediation soil arsenic concentrations by property usage type (overall summary for the properties to be remediated) (Table H-4)
- Extent of the remediation for both study areas, including the estimated number of properties to be remediated, estimated area and volume of soil to be remediated, and estimated length of Culvert 105 buried pipe to be remediated (Table H-5)

The information provided in this appendix has been compiled to support development of the Draft CMS Report. Design remediation limits and soil volumes are estimates based on available data. The actual design limits and volumes of soil expected to be remediated will be determined during the remedial design activities of the Corrective Measures Implementation (CMI), which will occur after selection of the final corrective measure(s) by the Agencies.

II. Extent of Remediation on a Property-Specific Basis

Properties that were evaluated for possible remediation as part of CMAs 1 through 8 are listed in Table H-2. For CMA 1 (no further action), no additional properties (beyond those already remediated in previous programs – i.e., ICMs and IRMs shown on Figure H-1) would be remediated and in the column entitled “To be Remediated?” all entries are “no”. For CMAs 2 through 8, the properties to be remediated are indicated as “yes” while those that are not to be remediated are indicated as “no”.

Eighteen properties within the study area have not been sampled because access permission could not be obtained from the property owner. With agreement by the Agencies, these eighteen CMS properties (i.e., B8, F7, F11, F12, G5, G8, I15, I19, L2, M4, N15, N16, P10, S26, T5, R1a-b, AC5 and AE2) were not evaluated for remediation under the CMAs, with the exception of three properties located along the Culvert 105 buried pipe (i.e., B8, M4 and AC5). Properties B8, M4 and AC5 were included under CMA 8, which as described below provides for removal and replacement of all buried sections of the culvert (with exceptions noted). FMC will offer to perform soil sampling and analysis at the eighteen un-sampled properties pursuant to a process approved by the Agencies. If written access permission is obtained from the property owner, then the sampling and analysis would be conducted, the results will be compared to the corrective measures goals selected by the Agencies, and if warranted the property will be remediated.

For those properties that are to be remediated, Table H-2 lists for each property the estimated post-remediation maximum soil arsenic concentration, post-remediation average soil arsenic concentration in surface soil (based on samples collected at depths of 0- to 3-inches or 0- to 6-inches below surface grade), the post-remediation average soil arsenic concentration at all depths, and the estimated soil volume to be remediated. For CMA 1, Table H-2 has no estimates of soil volume to be remediated and lists the current soil arsenic concentrations.

The steps followed as part of the property-specific CMA evaluation to identify the post-remediation maximum and average arsenic concentrations and the property-specific remediation volumes are described below.

1. The soil arsenic sample data for properties listed on Table H-2 were evaluated with respect to the property maximum soil remediation goals for CMAs 2 through 8 (Table H-1) to identify properties and associated soil sample points that would be remediated. Each soil sample point with an arsenic concentration greater than the post-remediation maximum concentration goal was identified for remediation. CMA 2 is unique among the CMAs in that the extent of remediation is based strictly on the 20 mg/kg soil arsenic concentration goal applied on a point by point basis, with no averaging. Therefore, the maximum soil remediation goal for CMA 2 is 20 mg/kg. The Agencies have suggested that some limited flexibility in the application of this goal may be employed on a case-by-case basis during the CMI (subject to approval by the Agencies). However, in the estimates presented below, the maximum soil remediation goals were applied at all sample points.

2. As an outcome of Step 1 (above), the maximum depth of remediation at each sample location was identified. Based on the maximum depth of remediation at each sample location, it was determined that there were some locations with shallower sample points, having acceptable concentrations, that are required to be remediated solely for the purpose of accessing deeper soils. At these locations, the shallower sample points were identified for remediation

regardless of the acceptable arsenic concentration at the shallower depth. Under CMA 2, Step 2 was the final step for identification of soil sample points to be remediated; CMAs 3 through 8 had additional steps which are described below.

3. The soil arsenic sample data for properties listed on Table H-2 were evaluated against the property average soil remediation goals for CMAs 3 through 8 in Table H-1 to identify soil sample points requiring remediation to achieve the remediation goals. The property-specific average soil concentrations were evaluated for shallow soil (collectively using data from the 0- to 3-inch and 0- to 6-inch sample depth intervals) and on an overall property-wide basis (all depths). For CMA 8, in addition to the surface and all depths averages on a property-wide basis, averages were also developed for sampling grid sub-areas at eight large properties (R1a-north, R1a-south, R1b, R1d, AD1, AE1, AF1 and the non-ICM area of the Roy-Hart School Property), as requested by the Agencies. An approximate 100-foot by 100-foot grid was established across each of these properties (see Figures H-9a through H-9e), with the grid lines passing through sampling locations to the extent feasible. Grid squares were then combined or adjusted, as necessary, to create data averaging sub-areas with at least four sampling locations within or delineating the sub-area. Averages were developed both property-wide and for the data averaging areas to allow comparison of the soil volumes to be remediated, as estimated by each of these two methods (see Table H-3). This comparison indicates the grid sub-area method results in soil volume estimates approximately 9 percent higher than those under the property-wide method. To account for this difference, a correction factor of 1.09 was applied to the estimates for the eight large properties calculated on a property-wide basis for CMAs 3 through 8.

4. A concentration value of 5 mg/kg was used as an estimate of backfill soil arsenic values, for purposes of calculating the post-remediation average concentrations on remediated properties. This estimated backfill concentration is used for the purposes of this CMS only; the actual post-remediation average concentration will depend on the backfill arsenic concentrations determined from sampling results during the CMI. The soil sample points identified for remediation were replaced with the backfill value of 5 mg/kg for calculation of post-remediation average (both surface soil and all soil at any depth) arsenic concentrations were calculated for each property (and also for grid sub-areas in CMA 8).

5. If the data set for a property allowed more than one possible combination of soil sample points to be remediated to achieve the property-specific post-remediation average concentration goal, then preference was given to the highest concentrations that were either at the ground surface or that were adjacent to another sample point identified for remediation. If two such sample points exhibited similar concentrations, then preference was given to ease of remediation (e.g., access to the street). A detailed analysis of the locations of trees and of proximity to access obstructions (e.g., utilities, structures) at each property was not conducted as part of the CMS,

and it was assumed that non-permanent structures (e.g., sidewalks, driveways, aboveground pools, sheds, etc.) would be removed as necessary for the purposes of this CMS only. During the CMI phase, on properties where the owner wants to preserve a tree or trees, consideration shall be given to remediation of soil associated with data points outside of root zones of the designated trees to achieve the average soil arsenic concentration goals.

6. Figures H-1 through H-8d show the estimated limits of soil to be remediated for each of the respective CMAs, highlighted in a range of colors for differing depths of remediation. The limits (i.e., area and depth), Culvert 105 considerations, and volume of soil to be remediated for CMAs 2 through 8 were determined as described below.

   a. Area: The area associated with a sample point to be remediated was estimated on a property-specific basis by extending the limits of remediation to either the next adjacent (or closest) sample points on that property that met the post-remediation maximum concentration goal ("point-to-point"), or to the property line if no sample exists in that direction. Where the area identified for remediation encompassed the footprint of a non-permanent structure (e.g., sidewalks, driveways, above-ground pools, sheds, etc.), the area of the non-permanent structure was included in the estimated area of remediation for purposes of the CMS. The need to remove soil beneath a non-permanent structure will be determined on a case-by-case basis during the design phase of the CMI after the Agencies have selected the final corrective measure(s).

   b. Depth: The vertical extent of soil to be remediated was estimated as the deepest depth of the sample points identified to be remediated at each location. If the vertical extent could not be bounded by the available data at a particular location (i.e., the deepest sample was identified to be remediated), and deeper sample points were available at the next adjacent sample points, then it was assumed that the soil to be remediated extended to an estimated depth dictated by the next adjacent sample points for the purposes of the CMS. The actual depth of soil removal at such points will be determined during the design phase of the CMI after the Agencies have selected the final corrective measure(s), and may include additional soil sampling and analysis.

   c. Culvert 105 Considerations: For CMAs 2 through 7B, the extent of remediation along the buried pipe sections of Culvert 105 and the estimated length of pipe that would require replacement was determined using the Culvert 105 sampling transect data points. It was assumed that the Culvert 105 pipe would be replaced along with any excavation of soil around the pipe identified for remediation. The extent of remediation along Culvert 105 associated with a transect sampling location identified for remediation was extended both upstream and downstream, to the next closest Culvert 105 sampling transect where the soil levels were below the post-remediation maximum concentration goal. For the purposes of the CMS, the lateral extent of soil remediation with respect to buried Culvert 105 pipe was

estimated at 10 feet (centered at the pipe) and the depth was estimated at 6 feet below surface grade. The estimated area of remediation along Culvert 105 was not extended into prior ICM areas or un-sampled properties/areas.

For CMA 8 only, it was assumed that remediation would be required along the entire length of Culvert 105 buried pipe (including three un-sampled properties and seven public streets crossed by the culvert, but excepting areas remediated under ICMs and the section of the pipe that passes beneath the Erie Canal), regardless of the absence of subsurface data or if existing transect sampling data met the post-remediation maximum concentration goal. Specifically, it was assumed that approximately 2 cubic yards of soil (e.g., approximately 10 feet wide by 6 feet deep) would be remediated for every linear foot of buried pipe.

d. Estimated Volume: The resulting estimated volume of soil to be remediated was calculated on a property-specific basis using the areas and depths estimated in Steps 6a to 6c above. The estimated volume includes an upward adjustment by thirty percent to account for implementation factors (e.g., additional information obtained during the CMI design phase and the practicability of remediation within the estimated areas and depths identified to be remediated based on property-specific and constructability considerations). The added thirty percent helps derive conservatively estimated CMS remedial soil volumes for each of the CMAs. In addition, the data averaging evaluation for the eight large properties (i.e., R1a-north, R1a-south, R1b, R1d, AD1, AE1, AF1 and the non-ICM area of the Roy-Hart School Property) described in Step 3 yielded a further increase of nine percent in the estimated volume of soil to be remediated using the grid sub-area data averaging method requested by the Agencies as compared to the property-wide average method used by FMC (see Table H-3). Therefore, an additional nine percent was applied to the estimated volume of soil to be remediated at each of the eight large properties as calculated by the property-wide average method under CMAs 3 through 8.

III. Summary

The extent of remediation is summarized in the following tables:

- Table H-4 presents the results of evaluation of the CMAs on a property-usage type basis, including a summary of the post-remediation soil arsenic concentrations by property usage type (overall summary for the properties to be remediated)

- Table H-5 presents the results of the evaluation of the CMAs on a study areas wide-basis, including the number of properties to be remediated, the estimated total area and volume of soil to be remediated, the estimated length of Culvert 105 buried pipe to be replaced and a cross-reference to the figures in this appendix that show the corresponding estimated limits of remediation for each CMA

As stated above, the actual design limits and estimated volumes of soil to be remediated will be determined during the remedial design activities of the CMI, following selection of the final corrective measure(s) by the Agencies.

Tables

Figures

TABLE H-1
IDENTIFICATION OF CORRECTIVE MEASURES ALTERNATIVES
DRAFT – MAY 2011
CMS REPORT FOR SUSPECTED AIR DEPOSITION AND CULVERT 105 STUDY AREAS
FMC CORPORATION – MIDDLEPORT, NEW YORK

Alternative	Post-Remediation Soil Arsenic Goals (1)		Non-ICM Area of Roy-Hart School Property
	Property Average	Property Maximum	
1	Not applicable – No Further Action	Not applicable – No Further Action	No Further Action
2	Not applicable – no average value	20 mg/kg	Included
3	20 mg/kg (residential) 30 mg/kg (public/institutional) (2) 40 mg/kg (agricultural, commercial, industrial, railroad, utility) (2)	40 mg/kg (residential) 60 mg/kg (public/institutional) (2) 80 mg/kg (agricultural, commercial, industrial, railroad, utility) (2)	Institutional Controls (3)
4	30 mg/kg	60 mg/kg	No Further Action
5	40 mg/kg	80 mg/kg	No Further Action
6A	20 mg/kg (residential, public, institutional) 30 mg/kg (agricultural, commercial) (2) 40 mg/kg (industrial, railroad, utility) (2)	35 mg/kg (residential, public, institutional) 50 mg/kg (agricultural, commercial) (2) 80 mg/kg (industrial, railroad, utility) (2)	Institutional Controls (3)
6B	20 mg/kg (residential, public, institutional) 30 mg/kg (agricultural, commercial) (2) 40 mg/kg (industrial, railroad, utility) (2)	35 mg/kg (residential, public, institutional) 50 mg/kg (agricultural, commercial) (2) 80 mg/kg (industrial, railroad, utility) (2)	Included
7A	20 mg/kg (residential, public, institutional) 30 mg/kg (agricultural, commercial) (2) 40 mg/kg (industrial, railroad, utility) (2)	30 mg/kg (residential, public, institutional) 50 mg/kg (agricultural, commercial) (2) 80 mg/kg (industrial, railroad, utility) (2)	Institutional Controls (3)
7B	20 mg/kg (residential, public, institutional) 30 mg/kg (agricultural, commercial) (2) 40 mg/kg (industrial, railroad, utility) (2)	30 mg/kg (residential, public, institutional) 50 mg/kg (agricultural, commercial) (2) 80 mg/kg (industrial, railroad, utility) (2)	Included
8	20 mg/kg	30 mg/kg	Included

Notes:
1. CMAs 3, 6A, 6B, 7A and 7B have different post-remediation soil arsenic goals for different property usages, while CMAs 1, 2, 4, 5 and 8 have goals that are applied regardless of property usage.
2. Includes use of legal mechanism; if the property use changes in the future, further evaluation, and if necessary remediation, will be performed.
3. Includes use of legal mechanism for the non-ICM area of the school property; further action to be performed if the use of the property changes to residential.

TABLE H-2
EXTENT OF REMEDIATION ON A PROPERTY-SPECIFIC BASIS
DRAFT - MAY 2011
CMS FOR SUSPECTED AIR DEPOSITION AND CULVERT 105 STUDY AREAS
FMC CORPORATION - MIDDLEPORT, NEW YORK

Property ID (see Notes 1, 2)	Property Usage Considered (see Note 3)	CMA 1				CMA 2					CMA 3					CMA 4					CMA 5				
		To Be Remediated? (Yes / No)	Current Conditions Arsenic Concentration (see Note 4)			To Be Remediated? (Yes / No) (see Note 5)	Estimated Soil Volume to be Remediated (see Note 6)	Post-Remediation Arsenic Concentration at Properties to be Remediated (see Note 4)			To Be Remediated? (Yes / No) (see Note 5)	Estimated Soil Volume to be Remediated (see Note 6)	Post-Remediation Arsenic Concentration at Properties to be Remediated (see Note 4)			To Be Remediated? (Yes / No) (see Note 5)	Estimated Soil Volume to be Remediated (see Note 6)	Post-Remediation Arsenic Concentration at Properties to be Remediated (see Note 4)			To Be Remediated? (Yes / No) (see Note 5)	Estimated Soil Volume to be Remediated (see Note 6)	Post-Remediation Arsenic Concentration at Properties to be Remediated (see Note 4)		
			Maximum (mg/kg)	Surface Average (mg/kg)	All Depths Average (mg/kg)		(cu.yds.)	Maximum (mg/kg)	Surface Average (mg/kg)	All Depths Average (mg/kg)		(cu.yds.)	Maximum (mg/kg)	Surface Average (mg/kg)	All Depths Average (mg/kg)		(cu.yds.)	Maximum (mg/kg)	Surface Average (mg/kg)	All Depths Average (mg/kg)		(cu.yds.)	Maximum (mg/kg)	Surface Average (mg/kg)	All Depths Average (mg/kg)
AB1	residential	No	109	32	24	Yes	610	14.0	8.1	6.7	Yes	510	31.1	8	8	Yes	590	40.4	8	10	Yes	120	71.2	9	14
AB2	residential	No	217	49	37	Yes (a)	1,190	17.5	4.6	6.6	Yes (a)	990	32.6	6	11	Yes (a)	990	32.6	6	11	Yes (a)	1,570	32.6	6	11
AB3	residential	No	17.2	8	8	No	0	17.2	7.5	8.0	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--
AB4	residential	No	98.7	23	15	Yes	170	19.6	3.5	4.5	Yes	120	27.5	4	5	Yes	60	50.1	6	8	Yes	60	50.1	6	8
AB5	residential	No	17.9	8	7	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--
AB7	residential	No	23.8	9	9	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--
AC4	open/recreational	No	16.2	7	5	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--
AC5	commercial	No	un-sampled property			No	0	--	--	--	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--
AD1	residential	No	432	42	25	Yes	20,650	19.6	5.0	5.4	Yes	9,580	39.9	14	11	Yes	5,360	58.7	24	17	Yes	4,340	76.1	25	18
AD2	residential	No	10.4	10	6	No	0	10.4	9.5	6.4	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--
AD3	residential	No	19.1	15	9	No	0	19.1	14.5	9.1	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--
AE1	residential	No	380	104	59	Yes	6,310	18.2	5.5	5.1	Yes	5,290	33.6	6	6	Yes	3,800	50.9	9	9	Yes	3,630	77.5	11	11
AE3	residential	No	9.2	7	6	No	0	9.2	7.3	6.2	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--
AF1	residential	No	636	131	89	Yes	8,070	14.6	5.1	4.8	Yes	6,730	37.8	6	7	Yes	5,180	59.1	9	10	Yes	4,440	78.9	9	14
AG1	residential	No	170	43	16	Yes	910	19.9	5.3	4.7	Yes	910	8.9	5	4	Yes	740	50.2	12	7	Yes	590	61.6	20	8
AH1	residential	No	97.7	39	24	Yes	70	15.5	5.9	5.5	Yes	70	38.2	7	10	Yes	20	55.0	14	15	Yes	20	70.9	20	19
AH2	residential	No	291	54	26	Yes	1,950	15.5	5.2	5.0	Yes	1,610	31.3	6	7	Yes	520	55.0	15	13	Yes	420	74.5	24	17
AI1	residential	No	219	41	25	Yes	2,750	17.8	5.0	5.1	Yes	1,470	40.0	11	9	Yes	330	58.8	30	16	Yes	50	66.8	33	17
AJ1	utility	No	416	52	35	Yes	2,540	18.8	5.1	5.2	Yes	1,980	78.2	19	14	Yes	1,940	59.8	14	12	Yes	1,750	78.2	19	14
AJ2	residential	No	57.6	21	13	Yes	220	15.5	5.9	6.3	Yes	50	24.4	13	11	No	0	--	--	--	No	0	--	--	--
AK1	residential	No	78.2	36	37	Yes	1,260	5.0	5.0	5.0	Yes	700	33.3	5	9.3	Yes	450	59.8	20	25	No	0	--	--	--
B1	residential	No	163	19	21	Yes	550	20.0	9.5	7.7	Yes	410	37.9	13.2	10.1	Yes	410	37.9	13	10	Yes	340	63.9	15	12
B3	residential	No	20.8	16	14	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--
B4	residential	No	17.1	12	12	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--
B8	public/institutional	No	un-sampled property			No	0	--	--	--	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--
C3	residential	No	32.7	21	19	Yes	540	18.7	8.3	6.8	Yes	40	32.7	17.3	17.2	No	0	--	--	--	No	0	--	--	--
D1	residential	No	33.0	24	20	Yes	340	14.3	7.0	5.0	Yes	60	25.6	17	17	No	0	--	--	--	No	0	--	--	--
D2	residential	No	48.1	23	26	Yes	360	19.7	6.3	5.0	Yes	70	35.0	19	18	No	0	--	--	--	No	0	--	--	--
D3	residential	No	67.8	27	31	Yes	320	16.4	6.4	5.0	Yes	140	26.1	19	14	Yes	110	48.8	19	19	No	0	--	--	--
D4	residential	No	34.0	27	23	Yes	280	18.3	10.2	9.5	Yes	60	34.0	16	17	No	0	--	--	--	No	0	--	--	--
D5	residential	No	31.4	24	20	Yes	260	18.8	8.5	8.2	Yes	70	26.5	18	17	No	0	--	--	--	No	0	--	--	--
D6	residential	No	30.1	21	21	Yes	270	19.0	8.2	10.0	Yes	30	27.1	14	18	No	0	--	--	--	No	0	--	--	--
D7	residential	No	97.6	30	35	Yes	60	11.2	6.7	6.6	Yes	60	11.2	7	7	Yes	30	47.8	7	15	Yes	30	47.8	7	15
D9	residential	No	49.5	23	28	Yes	160	19.2	11.0	14.1	Yes	120	23.1	14	13	No	0	--	--	--	No	0	--	--	--
D10	residential	No	42.8	21	25	Yes	340	5.0	5.0	5.0	Yes	150	30.3	18	14	No	0	--	--	--	No	0	--	--	--
D11	residential	No	58.2	15	25	Yes	190	13.5	7.7	9.5	Yes	170	13.5	10	8	No	0	--	--	--	No	0	--	--	--
D12	residential	No	89.3	38	44	Yes	330	11.5	5.7	5.0	Yes	190	37.1	16	15	Yes	190	37.1	16	15	Yes	110	69.6	26	31
E1	residential	No	37.3	23	23	Yes	310	19.3	9.0	9.9	Yes	40	37.3	18	20	No	0	--	--	--	No	0	--	--	--
E4	residential	No	31.4	17	19	Yes	270	13.3	9.0	10.2	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--
E5	residential	No	116	48	46	Yes	430	19.0	6.8	8.5	Yes	200	37.8	20	19	Yes	200	37.8	20	19	Yes	140	74.7	20	26
E6	residential	No	36.2	16	21	Yes	180	18.6	8.5	11.4	Yes	50	36.2	11	19	No	0	--	--	--	No	0	--	--	--
E7	residential	No	61.6	15	30	Yes	390	5.0	4.9	4.8	Yes	100	37.5	10	17	Yes	100	37.5	10	17	No	0	--	--	--
E11	residential	No	37.3	19	22	Yes	150	7.6	5.5	5.4	Yes	20	37.3	14	19	No	0	--	--	--	No	0	--	--	--
F1	residential	No	58.5	41	31	Yes	350	15.6	6.2	4.7	Yes	240	29.0	5	9	Yes	40	57.2	27	26	Yes	50	57.2	27	26
F2	residential	No	56.8	26	28	Yes	350	9.7	6.2	5.8	Yes	180	30.2	15	13	No	0	--	--	--	No	0	--	--	--
F3	residential	No	55.2	33	32	Yes	360	11.3	6.2	5.8	Yes	270	22.9	6	8	Yes	70	55.2	22	26	No	0	--	--	--
F4	residential	No	25.6	11	16	Yes	130	15.7	8.5	9.9	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--
F8	residential	No	44.4	33	29	Yes	340	19.9	9.5	7.8	Yes	110	39.8	8	18	Yes	50	39.8	23	25	No	0	--	--	--
F9	residential	No	34.5	13	18	Yes	130	18.7	7.5	6.6	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--
G1	residential	No	59.9	18	25	Yes	380	17.7	10.1	12.0	Yes	330	17.7	12	10	No	0	--	--	--	No	0	--	--	--
G2	residential	No	61.6	37	31	Yes	350	8.2	5.3	5.0	Yes	120	34.1	16	17	Yes	30	40.6	25	21	No	0	--	--	--
G3	residential	No	53.4	29	29	Yes	320	12.7	7.5	7.3	Yes	170	39.4	12	14	No	0	--	--	--	No	0	--	--	--
G4	residential	No	45.0	11	15	Yes	200	15.6	7.5	9.3	Yes	150	15.6	9	8	No	0	--	--	--	No	0	--	--	--
G6	residential	No	298	101	59	Yes	300	17.8	7.5	5.0	Yes	210	40.0	19	20	Yes	60	42.9	27	30	Yes	60	42.9	27	30
G7	residential	No	54.0	29	26	Yes	290	19.0	10.0	11.5	Yes	50	32.2	17	20	No	0	--	--	--	No	0	--	--	--
G9	residential	No	39.6	27	22	Yes	140	13.7	7.4	6.9	Yes	40	29.7	18	18	No	0	--	--	--	No	0	--	--	--
G11	residential	No	24.0	16	16	Yes	310	14.2	8.1	8.6	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--
G12	residential	No	80.4	25	29	Yes	700	19.3	6.7	7.0	Yes	120	34.4	20	20	Yes	120	34.4	20	20	Yes	120	34.4	20	20
G13	residential	No	34.4	16	18	Yes	670	11.5	6.5	6.5	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--
G14	residential	No	54.5	23	24	Yes	340	18.7	10.3	10.2	Yes	60	39.6	17	17	No	0	--	--	--	No	0	--	--	--
G15	residential	No	51.4	11	18	Yes	190	18.3	8.1	8.8	Yes	120	25.0	9	10	No	0	--	--	--	No	0	--	--	--

TABLE H-2
EXTENT OF REMEDIATION ON A PROPERTY-SPECIFIC BASIS
DRAFT - MAY 2011
CMS FOR SUSPECTED AIR DEPOSITION AND CULVERT 105 STUDY AREAS
FMC CORPORATION - MIDDLEPORT, NEW YORK

Property ID (see Notes 1, 2)	Property Usage Considered (see Note 3)	CMA 1				CMA 2					CMA 3					CMA 4					CMA 5				
		To Be Remediated? (Yes / No)	Current Conditions Arsenic Concentration (see Note 4)			To Be Remediated? (Yes / No) (see Note 5)	Estimated Soil Volume to be Remediated (see Note 6)	Post-Remediation Arsenic Concentration at Properties to be Remediated (see Note 4)			To Be Remediated? (Yes / No) (see Note 5)	Estimated Soil Volume to be Remediated (see Note 6)	Post-Remediation Arsenic Concentration at Properties to be Remediated (see Note 4)			To Be Remediated? (Yes / No) (see Note 5)	Estimated Soil Volume to be Remediated (see Note 6)	Post-Remediation Arsenic Concentration at Properties to be Remediated (see Note 4)			To Be Remediated? (Yes / No) (see Note 5)	Estimated Soil Volume to be Remediated (see Note 6)	Post-Remediation Arsenic Concentration at Properties to be Remediated (see Note 4)		
			Maximum (mg/kg)	Surface Average (mg/kg)	All Depths Average (mg/kg)		(cu.yds.)	Maximum (mg/kg)	Surface Average (mg/kg)	All Depths Average (mg/kg)		(cu.yds.)	Maximum (mg/kg)	Surface Average (mg/kg)	All Depths Average (mg/kg)		(cu.yds.)	Maximum (mg/kg)	Surface Average (mg/kg)	All Depths Average (mg/kg)		(cu.yds.)	Maximum (mg/kg)	Surface Average (mg/kg)	All Depths Average (mg/kg)
G16	residential	No	39.1	22	22	Yes	860	13.2	5.8	5.5	Yes	130	37.3	16	20	No	0	--	--	--	No	0	--	--	--
G17	residential	No	36.2	18	19	Yes	370	19.1	9.6	9.6	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--
G18	residential	No	34.7	14	17	Yes	120	18.5	8.0	8.7	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--
I5	residential	No	35.5	22	23	Yes	450	10.9	5.5	5.0	Yes	110	31.2	17	18	No	0	--	--	--	No	0	--	--	--
I6	residential	No	25.4	17	15	Yes	50	17.3	8.7	5.6	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--
I7	residential	No	43.6	21	21	Yes	190	17.4	6.6	8.1	Yes	70	26.7	18	15	No	0	--	--	--	No	0	--	--	--
I8	residential	No	35.0	12	11	Yes	20	13.2	7.5	7.2	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--
I9	residential	No	33.1	20	21	Yes	90	19.9	9.5	7.7	Yes	30	27.1	13	17	No	0	--	--	--	No	0	--	--	--
I10	residential	No	35.7	25	23	Yes	70	12.6	5.8	5.0	Yes	30	27.5	17	20	No	0	--	--	--	No	0	--	--	--
I11	residential	No	146	52	33	Yes	80	19.8	8.7	8.7	Yes	20	27.4	17	19	Yes	10	27.4	17	19	Yes	20	27.4	17	19
I12	residential	No	38.0	20	21	Yes	120	15.1	8.6	8.9	Yes	30	38.0	13	17	No	0	--	--	--	No	0	--	--	--
I13	residential	No	26.9	17	16	Yes	60	15.9	9.9	9.7	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--
I14	residential	No	26.5	16	15	Yes	90	15.0	8.6	9.2	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--
I16	residential	No	27.4	21	19	Yes	140	15.9	8.2	6.8	Yes	30	23.6	15	17	No	0	--	--	--	No	0	--	--	--
I17	residential	No	32.5	25	25	Yes	140	19.2	8.5	7.8	Yes	60	32.5	15	19	No	0	--	--	--	No	0	--	--	--
I18	residential	No	28.3	20	19	Yes	70	20.0	12.0	14.5	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--
I20	public/institutional	No	59.4	36	28	Yes	290	16.9	7.0	5.0	Yes	40	40.0	23	22	Yes	40	40.0	23	22	No	0	--	--	--
J1	residential	No	20.7	15	15	Yes (a)	160	20.7	15	15	Yes (a)	140	20.7	13	11	Yes (a)	140	20.7	13	11	Yes (a)	140	20.7	13	11
J2	residential	No	18.0	11	11	Yes (a)	240	9.5	6.2	6.7	Yes (a)	240	9.5	6	7	Yes (a)	240	9.5	6	7	Yes (a)	240	9.5	6	7
J4	residential	No	35.6	18	17	Yes (a)	110	18.9	14.7	13.0	Yes (a)	70	26.5	18	15	Yes (a)	70	26.5	18	15	Yes (a)	70	26.5	18	15
J5	residential	No	33.0	20	19	Yes	490	17.3	8.9	9.8	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--
J6	residential	No	68.3	32	30	Yes	690	17.4	5.0	6.0	Yes	210	34.0	17	20	Yes	40	36.5	24	26	No	0	--	--	--
J7	residential	No	44.0	30	26	Yes	380	18.7	5.0	6.6	Yes	70	34.8	17	19	No	0	--	--	--	No	0	--	--	--
J8	residential	No	89.8	44	40	Yes	600	12.5	5.0	5.5	Yes	380	39.1	20	17	Yes	280	56.6	27	26	Yes	40	68.9	30	34
J9	residential	No	51.8	34	31	Yes	320	18.6	5.0	6.5	Yes	180	29.6	17	16	Yes	50	51.8	26	28	No	0	--	--	--
J10	residential	No	38.6	32	30	Yes	250	16.2	7.2	7.0	Yes	60	38.6	7	18	Yes	40	38.6	25	27	No	0	--	--	--
J11	residential	No	24.6	18	18	Yes	340	16.6	5.1	6.5	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--
J12	residential	No	32.0	27	22	Yes	190	16.2	5.0	8.2	Yes	80	32	16	17	No	0	--	--	--	No	0	--	--	--
J13	residential	No	32.9	16	15	Yes (a)	70	18.3	10.3	11.8	Yes (a)	30	32.9	16	15	Yes (a)	30	32.9	16	15	Yes (a)	30	32.9	16	15
J14	residential	No	142	19	18	Yes (a)	350	19.3	5.0	5.7	Yes (a)	240	24.4	13	8	Yes (a)	240	59.0	17	12	Yes (a)	240	59.0	17	12
J15	residential	No	47.0	26	17	Yes (a)	330	15.8	7.1	5.8	Yes (a)	70	36.7	12	14	Yes (a)	70	36.7	12	14	Yes (a)	70	36.7	12	14
J16	residential	No	26.1	18	17	Yes (a)	320	18.9	8.7	7.1	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--
J17	residential	No	34.7	22	24	Yes	210	11.0	5.0	5.6	Yes	40	32	16	19	No	0	--	--	--	No	0	--	--	--
J18	residential	No	38.0	28	23	Yes	270	14.6	5.0	6.2	Yes	50	32.7	20	20	No	0	--	--	--	No	0	--	--	--
J19	residential	No	38.7	26	23	Yes	160	9.0	5.0	5.7	Yes	50	29.6	20	18	No	0	--	--	--	No	0	--	--	--
J20	residential	No	33.2	28	24	Yes	240	17.1	5.0	6.8	Yes	50	33.2	15	19	No	0	--	--	--	No	0	--	--	--
J21	residential	No	42.9	32	24	Yes	190	13.5	5.0	6.1	Yes	30	33.4	20	19	Yes	10	33.4	15	16	No	0	--	--	--
J22	residential	No	28.9	15	16	Yes	130	12.6	6.7	7.1	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--
J23	residential	No	35.9	26	23	Yes	170	18.1	5.0	7.8	Yes	30	32.3	18	20	No	0	--	--	--	No	0	--	--	--
J24	residential	No	54.8	32	33	Yes	510	17.5	5.0	5.9	Yes	360	38.2	14	17	Yes	40	54.8	25	20	No	0	--	--	--
J25	residential	No	38.3	25	21	Yes	550	19.5	5.0	7.3	Yes	120	34.5	19	19	No	0	--	--	--	No	0	--	--	--
J26	commercial	No	206	43	34	Yes	1,540	10.1	5.0	5.4	Yes	100	70.6	25	26	Yes	190	41.3	25	24	Yes	100	70.6	25	26
K1	residential	No	50.7	34	30	Yes	470	15.6	6	5	Yes	190	37.0	19	17	Yes	30	43.6	25	26	No	0	--	--	--
K2	residential	No	45.5	32	29	Yes	180	15.5	7.2	6.8	Yes	110	34.3	17	16	Yes	40	43.9	24	25	No	0	--	--	--
K3	residential	No	38.2	16	15	Yes	190	10.4	5.1	4.7	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--
K4	residential	No	183	35	60	Yes	290	8.7	5.3	5.7	Yes	270	38.4	12	11	Yes	170	46.4	23	20	Yes	170	46.4	23	20
K5	residential	No	36.3	26	25	Yes	230	19.6	8.5	7.5	Yes	30	31.9	18	20	No	0	--	--	--	No	0	--	--	--
K6	residential	No	227	89	53	Yes	250	14.9	6.5	5.0	Yes	170	39.9	5	12	Yes	60	50.3	24	27	Yes	50	50.3	33	31
K7	residential	No	95.0	54	45	Yes	270	7.1	5.2	5.0	Yes	190	35.3	11	14	Yes	100	53.1	21	26	Yes	30	60.1	31	36
K8	residential	No	56.5	40	34	Yes	290	19.2	11.1	8.6	Yes	200	36.6	9	15	Yes	70	56.5	28	29	No	0	--	--	--
L1	residential	No	39.5	25	25	Yes	2,760	19.5	5.2	6.5	Yes	330	36.5	17	20	No	0	--	--	--	No	0	--	--	--
L3	residential	No	31.3	17	16	Yes	930	19.6	12.5	11.4	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--
M1	residential	No	40.8	16	20	Yes	170	16.9	9.3	8.3	Yes	100	20.7	13	11	No	0	--	--	--	No	0	--	--	--
M2	residential	No	23.0	17	15	Yes	200	12.3	6.5	6.1	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--
M3	residential	No	23.9	13	8	Yes	50	17.6	9.3	7.4	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--
M4	residential	No	un-sampled property			No	0	--	--	--	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--
M5	residential	No	41.7	27	22	Yes	140	19.7	7.9	8.4	Yes	10	28.0	20	19	No	0	--	--	--	No	0	--	--	--
M6	residential	No	67.7	39	30	Yes	180	14.1	5.0	5.9	Yes	50	36.6	9	18	Yes	30	36.6	23	24	No	0	--	--	--
M7	residential	No	55.6	31	29	Yes	210	18.2	8.2	8.1	Yes	110	33.3	20	15	Yes	40	55.6	20	25	No	0	--	--	--
M8	residential	No	48.2	41	34	Yes	180	16.6	5.0	7.0	Yes	110	37.6	13	15	Yes	30	48.2	30	29	Yes	30	48.2	30	29
M9	residential	No	49.8	36	30	Yes	560	14.9	5.4	6.5	Yes	280	37.1	13	18	Yes	30	49.8	30	28	No	0	--	--	--
M10	residential	No	63.9	36	34	Yes	550	17.2	7.0	6.4	Yes	210	37.4	15	19	Yes	110	48.9	27	25	No	0	--	--	--

TABLE H-2
EXTENT OF REMEDIATION ON A PROPERTY-SPECIFIC BASIS
DRAFT - MAY 2011
CMS FOR SUSPECTED AIR DEPOSITION AND CULVERT 105 STUDY AREAS
FMC CORPORATION - MIDDLEPORT, NEW YORK

Property ID (see Notes 1, 2)	Property Usage Considered (see Note 3)	CMA 1				CMA 2					CMA 3					CMA 4					CMA 5				
		To Be Remediated? (Yes / No)	Current Conditions Arsenic Concentration (see Note 4)			To Be Remediated? (Yes / No) (see Note 5)	Estimated Soil Volume to be Remediated (see Note 6)	Post-Remediation Arsenic Concentration at Properties to be Remediated (see Note 4)			To Be Remediated? (Yes / No) (see Note 5)	Estimated Soil Volume to be Remediated (see Note 6)	Post-Remediation Arsenic Concentration at Properties to be Remediated (see Note 4)			To Be Remediated? (Yes / No) (see Note 5)	Estimated Soil Volume to be Remediated (see Note 6)	Post-Remediation Arsenic Concentration at Properties to be Remediated (see Note 4)			To Be Remediated? (Yes / No) (see Note 5)	Estimated Soil Volume to be Remediated (see Note 6)	Post-Remediation Arsenic Concentration at Properties to be Remediated (see Note 4)		
			Maximum (mg/kg)	Surface Average (mg/kg)	All Depths Average (mg/kg)		(cu.yds.)	Maximum (mg/kg)	Surface Average (mg/kg)	All Depths Average (mg/kg)		(cu.yds.)	Maximum (mg/kg)	Surface Average (mg/kg)	All Depths Average (mg/kg)		(cu.yds.)	Maximum (mg/kg)	Surface Average (mg/kg)	All Depths Average (mg/kg)		(cu.yds.)	Maximum (mg/kg)	Surface Average (mg/kg)	All Depths Average (mg/kg)
M11	residential	No	68.7	38	39	Yes	300	5.0	5.0	5.0	Yes	270	37.0	5	10	Yes	210	42.9	26	22	No	0	--	--	--
M12	residential	No	41.3	23	27	Yes	250	10.1	5.0	5.5	Yes	110	35.6	19	16	No	0	--	--	--	No	0	--	--	--
M13	residential	No	44.6	21	26	Yes	250	6.3	5.3	5.1	Yes	110	38.5	16	18	No	0	--	--	--	No	0	--	--	--
M14	residential	No	29.9	23	20	Yes	250	19.1	8.5	10.6	Yes	70	29.9	17	18	No	0	--	--	--	No	0	--	--	--
M15	residential	No	37.0	27	24	Yes	310	19.0	8.5	7.6	Yes	80	30.8	13	19	No	0	--	--	--	No	0	--	--	--
M16	residential	No	63.7	29	33	Yes	500	7.7	5.0	5.2	Yes	150	39.2	18	16	Yes	120	40.6	22	21	No	0	--	--	--
M17	residential	No	319	31	80	Yes	480	15.8	7.1	7.9	Yes	300	38.1	17	12	Yes	190	41.9	24	16	Yes	190	41.9	24	16
M18	residential	No	29.3	18	18	Yes	310	14.3	7.5	8.2	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--
M19	residential	No	39.5	31	22	Yes	460	19.4	6.9	6.5	Yes	70	39.5	17	17	Yes	40	39.5	27	20	No	0	--	--	--
M20	residential	No	58.8	39	23	Yes	530	15.4	5.0	4.9	Yes	210	39.0	12	12	Yes	70	58.8	26	19	No	0	--	--	--
M21	residential	No	58.4	39	31	Yes	360	18.1	5.0	7.4	Yes	90	37.2	15	20	Yes	70	39.8	28	26	No	0	--	--	--
M22	residential	No	122	54	49	Yes	450	19.6	5.0	6.2	Yes	250	39.9	11	14	Yes	180	48.8	26	25	Yes	50	63.4	35	39
M23	residential	No	71.3	52	41	Yes	340	19.4	5.0	7.7	Yes	230	35.8	5	14	Yes	60	57.4	20	29	Yes	20	64.5	35	35
M24	residential	No	69.4	38	34	Yes	280	17.4	6.7	6.9	Yes	160	24.6	7	11	Yes	110	58.8	7	16	No	0	--	--	--
M25	residential	No	63.3	52	40	Yes	270	19.2	5.0	6.4	Yes	180	37.3	5	14	Yes	60	48.3	24	29	Yes	30	56.5	37	34
M26	residential	No	89.6	69	57	Yes	320	5.0	5.0	5.0	Yes	250	38.8	12	16	Yes	190	40.3	12	20	Yes	60	71.5	25	37
M27	residential	No	29.6	22	16	Yes	40	18.8	11.4	11.9	Yes	20	21.5	16	14	No	0	--	--	--	No	0	--	--	--
N5	residential	No	59.2	23	24	Yes	410	16.7	7.9	8.7	Yes	80	37.0	19	19	No	0	--	--	--	No	0	--	--	--
N9	residential	No	28.6	22	20	Yes	60	20.0	14.2	11.6	Yes	40	23.9	16	17	No	0	--	--	--	No	0	--	--	--
N10	residential	No	29.6	22	20	Yes	170	17.0	9.7	7.5	Yes	30	24.7	16	17	No	0	--	--	--	No	0	--	--	--
N13	railroad/utility	No	64.1	33	26	Yes	520	19.5	7.7	5.0	No	0	--	--	--	Yes	50	44.5	22	22	No	0	--	--	--
N14	commercial	No	43.1	28	29	Yes	340	18.0	7.6	8.5	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--
NORCO / Q4 (5 parcels)	industrial	No	385	35	86	Yes	6,160	8.7	4.9	5.6	Yes	3,420	54.1	13	12	Yes	3,420	54.1	19	15	Yes	3,420	54.1	19	15
O1	residential	No	27.7	20	16	Yes	90	11.8	9.2	8.3	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--
O2	residential	No	34.8	19	22	Yes	130	16.3	6.3	5.0	Yes	20	34.8	15	20	No	0	--	--	--	No	0	--	--	--
O3	residential	No	58.5	34	36	Yes	180	16.8	6.2	5.0	Yes	110	29.2	16	15	Yes	50	58.5	24	27	No	0	--	--	--
O4	residential	No	38.0	28	26	Yes	430	13.7	5.8	5.0	Yes	70	34.5	13	19	No	0	--	--	--	No	0	--	--	--
O5	residential	No	63.0	35	30	Yes	450	18.9	6.6	5.0	Yes	170	38.5	20	17	Yes	30	41.4	23	24	No	0	--	--	--
O6	public/institutional	No	42.0	28	28	Yes	140	19.8	10.5	10.6	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--
O7	public/institutional	No	744	34	65	Yes	2,000	19.6	7.1	6.7	Yes	600	56.9	20	20	Yes	580	56.9	20	20	Yes	450	63.9	23	21
Q1	residential	No	45.7	34	26	Yes	150	18.8	7.2	7.8	Yes	50	36.6	19	19	Yes	30	40.9	26	22	No	0	--	--	--
Q2	commercial	No	42.1	29	24	Yes	140	17.3	8.3	5.0	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--
R1a North	residential	No	65.4	34	27	Yes	25,300	19.5	5.4	5.8	Yes	12,780	39.9	16	17	Yes	2,840	57.9	30	26	No	0	--	--	--
R1a South	open/agricultural	No	71.3	45	39	Yes	14,290	18.0	4.9	5.1	Yes	2,010	69.2	36	31	Yes	2,730	56.4	29	27	Yes	1,690	71.3	39	32
R1b	open/agricultural	No	205	33	27	Yes	42,480	20.0	5.4	6.1	Yes	2,080	74.2	27	23	Yes	2,130	58.7	25	21	Yes	1,950	76.6	28	23
R1d	residential	No	44.0	20	17	Yes	16,330	19.6	7.7	8.2	Yes	460	31.7	20	17	No	0	--	--	--	No	0	--	--	--
R3	residential	No	31.7	17	13	Yes	70	14.3	8.6	7.7	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--
R4	residential	No	38.4	14	11	Yes	70	6.6	5.4	5.2	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--
S1	residential	No	38.3	22	24	Yes	490	5.0	5.0	5.0	Yes	90	38.3	12	20	No	0	--	--	--	No	0	--	--	--
S2	residential	No	51.0	31	31	Yes	290	15.6	5.0	6.1	Yes	140	33.4	17	18	Yes	30	51.0	24	28	No	0	--	--	--
S3	residential	No	40.5	31	28	Yes	410	14.1	5.0	5.9	Yes	150	34.3	17	19	Yes	50	40.5	23	25	No	0	--	--	--
S4	residential	No	42.6	29	27	Yes	630	14.5	5.0	5.8	Yes	210	38.8	19	20	No	0	--	--	--	No	0	--	--	--
S5	residential	No	33.2	23	27	Yes	480	5.0	5.0	5.0	Yes	120	33.2	5	19	No	0	--	--	--	No	0	--	--	--
S6	residential	No	29.2	25	24	Yes	440	5.0	5.0	5.0	Yes	60	27.1	13	19	No	0	--	--	--	No	0	--	--	--
S7	residential	No	37.5	28	27	Yes	360	15.2	5.0	6.5	Yes	80	37.5	9	18	No	0	--	--	--	No	0	--	--	--
S8	residential	No	35.5	24	23	Yes	270	12.2	5.0	6.4	Yes	30	35.5	18	20	No	0	--	--	--	No	0	--	--	--
S9	residential	No	36.7	25	25	Yes	530	18.8	6.0	7.7	Yes	140	36.7	11	19	No	0	--	--	--	No	0	--	--	--
S10	residential	No	46.7	32	29	Yes	410	5.0	5.0	5.0	Yes	110	36.2	5	19	Yes	40	36.2	22	25	No	0	--	--	--
S11	residential	No	40.4	29	28	Yes	570	18.8	5.0	6.7	Yes	110	35.1	17	19	No	0	--	--	--	No	0	--	--	--
S12	residential	No	40.7	28	26	Yes	1,340	18.0	5.0	6.9	Yes	220	36.6	20	20	No	0	--	--	--	No	0	--	--	--
S13	residential	No	56.6	29	25	Yes	1,160	19.9	5.0	7.6	Yes	180	36.8	16	20	No	0	--	--	--	No	0	--	--	--
S14	residential	No	63.1	41	33	Yes	420	13.8	5.0	6.0	Yes	200	35.1	15	17	Yes	50	47.0	30	28	Yes	180	47.0	30	28
S15	residential	No	92.4	48	53	Yes	400	5.0	5.0	5.0	Yes	390	24.4	5	7	Yes	270	53.4	25	22	Yes	130	73.5	36	39
S16	residential	No	41.0	37	31	Yes	330	14.3	5.0	6.8	Yes	110	39.0	5	19	Yes	60	41.0	28	28	No	0	--	--	--
S17	residential	No	77.8	36	36	Yes	410	9.2	5.0	5.4	Yes	290	32.3	8	14	Yes	200	44.4	24	21	No	0	--	--	--
S18	residential	No	66.8	48	42	Yes	410	16.5	5.0	6.5	Yes	300	34.3	5	9	Yes	160	55.1	28	27	Yes	60	66.8	36	37
S19	residential	No	66.0	47	37	Yes	330	17.8	5.0	7.7	Yes	210	37.9	12	14	Yes	90	53.0	19	25	Yes	50	56.7	32	30
S20	residential	No	67.7	41	32	Yes	330	18.8	5.0	6.5	Yes	80	39.7	15	20	Yes	20	46.2	29	26	Yes	20	46.2	29	26
S21	residential	No	34.2	29	28	Yes	440	9.7	5.0	5.5	Yes	120	33.4	15	19	No	0	--	--	--	No	0	--	--	--
S22	residential	No	51.5	34	28	Yes	340	18.2	5.0	7.0	Yes	110	27.7	15	14	Yes	40	40.7	22	22	No	0	--	--	--
S23	residential	No	66.6	42	32	Yes	420	17.2	5.0	6.6	Yes	110	37.4	5	17	Yes	70	44.2	26	26	Yes	70	44.2	26	26

TABLE H-2
EXTENT OF REMEDIATION ON A PROPERTY-SPECIFIC BASIS
DRAFT - MAY 2011
CMS FOR SUSPECTED AIR DEPOSITION AND CULVERT 105 STUDY AREAS
FMC CORPORATION - MIDDLEPORT, NEW YORK

Property ID (see Notes 1, 2)	Property Usage Considered (see Note 3)	CMA 1				CMA 2					CMA 3					CMA 4					CMA 5				
		To Be Remediated? (Yes / No)	Current Conditions Arsenic Concentration (see Note 4)			To Be Remediated? (Yes / No) (see Note 5)	Estimated Soil Volume to be Remediated (see Note 6)	Post-Remediation Arsenic Concentration at Properties to be Remediated (see Note 4)			To Be Remediated? (Yes / No) (see Note 5)	Estimated Soil Volume to be Remediated (see Note 6)	Post-Remediation Arsenic Concentration at Properties to be Remediated (see Note 4)			To Be Remediated? (Yes / No) (see Note 5)	Estimated Soil Volume to be Remediated (see Note 6)	Post-Remediation Arsenic Concentration at Properties to be Remediated (see Note 4)			To Be Remediated? (Yes / No) (see Note 5)	Estimated Soil Volume to be Remediated (see Note 6)	Post-Remediation Arsenic Concentration at Properties to be Remediated (see Note 4)		
			Maximum (mg/kg)	Surface Average (mg/kg)	All Depths Average (mg/kg)		(cu.yds.)	Maximum (mg/kg)	Surface Average (mg/kg)	All Depths Average (mg/kg)		(cu.yds.)	Maximum (mg/kg)	Surface Average (mg/kg)	All Depths Average (mg/kg)		(cu.yds.)	Maximum (mg/kg)	Surface Average (mg/kg)	All Depths Average (mg/kg)		(cu.yds.)	Maximum (mg/kg)	Surface Average (mg/kg)	All Depths Average (mg/kg)
S24	residential	No	52.5	33	29	Yes	320	13.9	5.0	6.3	Yes	110	33.5	17	19	Yes	60	41.3	23	25	No	0	--	--	--
S25	residential	No	82.1	42	33	Yes	480	12.5	5.0	6.2	Yes	120	39.5	11	20	Yes	90	39.5	23	25	Yes	90	39.5	23	25
S27	residential	No	44.0	23	22	Yes	440	16.4	6.2	6.7	Yes	140	30.6	19	18	No	0	--	--	--	No	0	--	--	--
T1	residential	No	88.5	55	40	Yes	420	12.7	5.0	5.7	Yes	250	25.8	5	10	Yes	190	48.4	5	16	Yes	140	67.5	38	29
T2	residential	No	50.1	40	39	Yes	410	5.0	5.0	5.0	Yes	310	31.3	5	9	Yes	130	47.6	23	28	No	0	--	--	--
T3	residential	No	49.3	29	30	Yes	510	19.5	5.0	7.4	Yes	270	27.1	13	13	No	0	--	--	--	No	0	--	--	--
T6	residential	No	28.6	22	20	Yes	310	16.3	7.0	7.8	Yes	50	28.6	16	17	No	0	--	--	--	No	0	--	--	--
U4	residential	No	46.9	20	20	Yes	800	19.8	7.6	8.4	Yes	120	30.7	17	17	No	0	--	--	--	No	0	--	--	--
Roy Hart School	public/institutional	No	228	30	18	Yes	19,110	19.9	6.1	5.1	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--
Culvert 105 crossing 7 streets	public	No	un-sampled property			No	0	--	--	--	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--

CMA 1 # Properties to be Remediated	CMA 2 # Properties to be Remediated	Total Est'd. Volume to be Remediated	CMA 3 # Properties to be Remediated	Total Est'd. Volume to be Remediated	CMA 4 # Properties to be Remediated	Total Est'd. Volume to be Remediated	CMA 5 # Properties to be Remediated	Total Est'd. Volume to be Remediated
0	**181**	**228,000 cu.yds.**	**152**	**69,000 cu.yds.**	**86**	**38,000 cu.yds.**	**48**	**28,000 cu.yds.**

Notes:

See Notes at bottom of Page 8.

TABLE H-2
EXTENT OF REMEDIATION ON A PROPERTY-SPECIFIC BASIS
DRAFT - MAY 2011
CMS FOR SUSPECTED AIR DEPOSITION AND CULVERT 105 STUDY AREAS
FMC CORPORATION - MIDDLEPORT, NEW YORK

Property ID (see Notes 1, 2)	CMA 6A					CMA 6B					CMA 7A					CMA 7B					CMA 8				
	To Be Remediated? (Yes / No) (see Note 5)	Estimated Soil Volume to be Remediated (see Note 6) (cu.yds.)	Post-Remediation Arsenic Concentration at Properties to be Remediated (see Note 4) Maximum (mg/kg)	Surface Average (mg/kg)	All Depths Average (mg/kg)	To Be Remediated? (Yes / No) (see Note 5)	Estimated Soil Volume to be Remediated (see Note 6) (cu.yds.)	Post-Remediation Arsenic Concentration at Properties to be Remediated (see Note 4) Maximum (mg/kg)	Surface Average (mg/kg)	All Depths Average (mg/kg)	To Be Remediated? (Yes / No) (see Note 5)	Estimated Soil Volume to be Remediated (see Note 6) (cu.yds.)	Post-Remediation Arsenic Concentration at Properties to be Remediated (see Note 4) Maximum (mg/kg)	Surface Average (mg/kg)	All Depths Average (mg/kg)	To Be Remediated? (Yes / No) (see Note 5)	Estimated Soil Volume to be Remediated (see Note 6) (cu.yds.)	Post-Remediation Arsenic Concentration at Properties to be Remediated (see Note 4) Maximum (mg/kg)	Surface Average (mg/kg)	All Depths Average (mg/kg)	To Be Remediated? (Yes / No) (see Note 5)	Estimated Soil Volume to be Remediated (see Note 6) (cu.yds.)	Post-Remediation Arsenic Concentration at Properties to be Remediated (see Note 4) Maximum (mg/kg)	Surface Average (mg/kg)	All Depths Average (mg/kg)
AB1	Yes	510	31.1	8	8	Yes	510	31.1	8	8	Yes	610	14.0	8	7	Yes	610	14.0	8	7	Yes (a)	610	14.0	8	7
AB2	Yes (a)	990	32.6	6	11	Yes (a)	990	32.6	6	11	Yes (a)	1,130	17.5	6	7	Yes (a)	1,130	17.5	6	7	Yes (a)	1,650	17.5	6	7
AB3	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--	Yes (a)	15	17.2	8	8
AB4	Yes	120	27.5	4	5	Yes	120	27.5	4	5	Yes	120	27.5	4	5	Yes	120	27.5	4	5	Yes	120	27.5	4	5
AB5	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--	Yes (a)	310	17.9	8	7
AB7	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--	Yes (a)	10	23.8	9	9
AC4	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--	Yes (a)	240	16.2	7	5
AC5	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--	Yes (a)	790	un-sampled property		
AD1	Yes	12,650	34.9	11	10	Yes	12,650	34.9	11	10	Yes	13,320	29.5	10	9	Yes	13,320	29.5	10	9	Yes (a)	13,360	29.5	10	9
AD2	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--
AD3	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--
AE1	Yes	5,640	33.6	5	6	Yes	5,640	33.6	5	6	Yes	5,790	23.1	5	5	Yes	5,790	23.1	5	5	Yes (a)	5,950	23.1	5	5
AE3	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--
AF1	Yes	7,110	27.7	5	6	Yes	7,110	27.7	5	6	Yes	7,110	28.3	5	6	Yes	7,110	28.3	5	6	Yes (a)	7,550	28.3	5	6
AG1	Yes	910	19.9	5	5	Yes	910	19.9	5	5	Yes	850	8.9	5	4	Yes	850	8.9	5	4	Yes	850	8.9	5	4
AH1	Yes	70	31.3	7	9	Yes	70	31.3	7	9	Yes	70	27.4	7	8	Yes	70	27.4	7	8	Yes	70	27.4	7	8
AH2	Yes	1,610	31.3	7	8	Yes	1,610	31.3	7	8	Yes	1,720	27.4	7	7	Yes	1,720	27.4	7	7	Yes	1,720	27.4	7	7
AI1	Yes	1,720	33.4	10	8	Yes	1,720	33.4	10	8	Yes	1,870	29.6	8	7	Yes	1,870	29.6	8	7	Yes	1,870	29.6	8	7
AJ1	Yes	1,910	78.2	19	14	Yes	1,910	78.2	19	14	Yes	2,000	78.2	19	14	Yes	2,000	78.2	19	14	Yes (a)	3,440	25.8	8	7
AJ2	Yes	50	24.4	13	11	Yes	50	24.4	13	11	Yes	50	24.4	13	11	Yes	50	24.4	13	11	Yes	50	24.4	13	11
AK1	Yes	750	33.3	9	12	Yes	750	33.3	9	12	Yes	840	25.8	5	7	Yes	840	25.8	5	7	Yes	840	25.8	5	7
B1	Yes	450	32.4	13	9	Yes	450	32.4	13	9	Yes	520	26.5	12	9	Yes	520	26.5	12	9	Yes (a)	700	25.9	8	8
B3	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--	Yes (a)	140	20.8	16	14
B4	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--	Yes (a)	280	17.1	12	12
B8	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--	Yes (a)	190	un-sampled property		
C3	Yes	40	32.7	17	17	Yes	40	32.7	17	17	Yes	80	26.8	17	16	Yes	80	26.8	17	16	Yes	80	26.8	17	16
D1	Yes	60	25.6	17	17	Yes	60	25.6	17	17	Yes	60	25.6	17	17	Yes	60	25.6	17	17	Yes	60	25.6	17	17
D2	Yes	70	35.0	19	18	Yes	70	35.0	19	18	Yes	100	29.1	13	16	Yes	100	29.1	13	16	Yes	100	29.1	13	16
D3	Yes	140	26.1	19	14	Yes	140	26.1	19	14	Yes	140	26.1	19	14	Yes	140	26.1	19	14	Yes	140	26.1	19	14
D4	Yes	60	34.0	16	17	Yes	60	34.0	16	17	Yes	180	20.1	10	11	Yes	180	20.1	10	11	Yes	180	20.1	10	11
D5	Yes	70	26.5	18	17	Yes	70	26.5	18	17	Yes	70	26.5	18	17	Yes	70	26.5	18	17	Yes	70	26.5	18	17
D6	Yes	30	27.1	14	18	Yes	30	27.1	14	18	Yes	30	27.1	14	18	Yes	30	27.1	14	18	Yes	30	27.1	14	18
D7	Yes	50	11.2	7	7	Yes	50	11.2	7	7	Yes	50	11.2	7	7	Yes	50	11.2	7	7	Yes	60	11.2	7	7
D9	Yes	120	23.1	14	13	Yes	120	23.1	14	13	Yes	120	23.1	14	13	Yes	120	23.1	14	13	Yes	120	23.1	14	13
D10	Yes	150	30.3	18	14	Yes	150	30.3	18	14	Yes	180	20.6	12	11	Yes	180	20.6	12	11	Yes	180	20.6	12	11
D11	Yes	170	13.5	10	8	Yes	170	13.5	10	8	Yes	190	13.5	10	8	Yes	190	13.5	10	8	Yes	190	13.5	10	8
D12	Yes	230	30.4	16	12	Yes	230	30.4	16	12	Yes	230	22.7	9	9	Yes	230	22.7	9	9	Yes	230	22.7	9	9
E1	Yes	70	28.4	18	17	Yes	70	28.4	18	17	Yes	50	28.4	18	17	Yes	50	28.4	18	17	Yes	70	28.4	18	17
E4	No	0	--	--	--	No	0	--	--	--	Yes	60	28.4	10	16	Yes	60	28.4	10	16	Yes	60	28.4	10	16
E5	Yes	270	33.4	20	16	Yes	270	33.4	20	16	Yes	410	21.9	9	9	Yes	410	21.9	9	9	Yes	410	21.9	9	9
E6	Yes	130	34.7	11	12	Yes	130	34.7	11	12	Yes	180	18.6	11	9	Yes	180	18.6	11	9	Yes	180	18.6	11	9
E7	Yes	220	30.3	9	13	Yes	220	30.3	9	13	Yes	190	29.2	9	11	Yes	190	29.2	9	11	Yes	190	29.2	9	11
E11	Yes	60	31.8	15	14	Yes	60	31.8	15	14	Yes	70	24.1	15	10	Yes	70	24.1	15	10	Yes	70	24.1	15	10
F1	Yes	240	29.0	5	9	Yes	240	29.0	5	9	Yes	240	29.0	5	9	Yes	240	29.0	5	9	Yes	240	29.0	5	9
F2	Yes	180	30.2	15	13	Yes	180	30.2	15	13	Yes	250	27.2	10	10	Yes	250	27.2	10	10	Yes	250	27.2	10	10
F3	Yes	270	22.9	6	8	Yes	270	22.9	6	8	Yes	270	22.9	6	8	Yes	270	22.9	6	8	Yes	270	22.9	6	8
F4	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--
F8	Yes	100	33.7	15	17	Yes	100	33.7	15	17	Yes	140	29.7	8	14	Yes	140	29.7	8	14	Yes	140	29.7	8	14
F9	No	0	--	--	--	No	0	--	--	--	Yes	100	18.7	7	8	Yes	100	18.7	7	8	Yes	100	18.7	7	8
G1	Yes	330	17.7	12	10	Yes	330	17.7	12	10	Yes	330	17.7	12	10	Yes	330	17.7	12	10	Yes	330	17.7	12	10
G2	Yes	120	34.1	16	17	Yes	120	34.1	16	17	Yes	150	29.3	9	14	Yes	150	29.3	9	14	Yes	150	29.3	9	14
G3	Yes	250	29.7	12	10	Yes	250	29.7	12	10	Yes	250	29.7	12	10	Yes	250	29.7	12	10	Yes	250	29.7	12	10
G4	Yes	150	15.6	9	8	Yes	150	15.6	9	8	Yes	150	15.6	9	8	Yes	150	15.6	9	8	Yes	150	15.6	9	8
G6	Yes	280	33.6	12	10	Yes	280	33.6	12	10	Yes	300	17.8	5	8	Yes	300	17.8	5	8	Yes	300	17.8	5	8
G7	Yes	50	32.2	17	20	Yes	50	32.2	17	20	Yes	150	23.4	12	14	Yes	150	23.4	12	14	Yes	150	23.4	12	14
G9	Yes	40	29.7	18	18	Yes	40	29.7	18	18	Yes	40	29.7	18	18	Yes	40	29.7	18	18	Yes	40	29.7	18	18
G11	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--
G12	Yes	120	34.4	20	20	Yes	120	34.4	20	20	Yes	240	29.7	15	18	Yes	240	29.7	15	18	Yes	240	29.7	15	18
G13	No	0	--	--	--	No	0	--	--	--	Yes	280	27.3	14	12	Yes	280	27.3	14	12	Yes	280	27.3	14	12
G14	Yes	190	30.4	12	14	Yes	190	30.4	12	14	Yes	300	20.4	12	12	Yes	300	20.4	12	12	Yes	300	20.4	12	12
G15	Yes	120	25.0	9	10	Yes	120	25.0	9	10	Yes	120	25.0	9	10	Yes	120	25.0	9	10	Yes	120	25.0	9	10

TABLE H-2
EXTENT OF REMEDIATION ON A PROPERTY-SPECIFIC BASIS
DRAFT - MAY 2011
CMS FOR SUSPECTED AIR DEPOSITION AND CULVERT 105 STUDY AREAS
FMC CORPORATION - MIDDLEPORT, NEW YORK

Property ID (see Notes 1, 2)	CMA 6A					CMA 6B					CMA 7A					CMA 7B					CMA 8				
	To Be Remediated? (Yes / No) (see Note 5)	Estimated Soil Volume to be Remediated (see Note 6) (cu.yds.)	Post-Remediation Arsenic Concentration at Properties to be Remediated (see Note 4) Maximum (mg/kg)	Surface Average (mg/kg)	All Depths Average (mg/kg)	To Be Remediated? (Yes / No) (see Note 5)	Estimated Soil Volume to be Remediated (see Note 6) (cu.yds.)	Post-Remediation Arsenic Concentration at Properties to be Remediated (see Note 4) Maximum (mg/kg)	Surface Average (mg/kg)	All Depths Average (mg/kg)	To Be Remediated? (Yes / No) (see Note 5)	Estimated Soil Volume to be Remediated (see Note 6) (cu.yds.)	Post-Remediation Arsenic Concentration at Properties to be Remediated (see Note 4) Maximum (mg/kg)	Surface Average (mg/kg)	All Depths Average (mg/kg)	To Be Remediated? (Yes / No) (see Note 5)	Estimated Soil Volume to be Remediated (see Note 6) (cu.yds.)	Post-Remediation Arsenic Concentration at Properties to be Remediated (see Note 4) Maximum (mg/kg)	Surface Average (mg/kg)	All Depths Average (mg/kg)	To Be Remediated? (Yes / No) (see Note 5)	Estimated Soil Volume to be Remediated (see Note 6) (cu.yds.)	Post-Remediation Arsenic Concentration at Properties to be Remediated (see Note 4) Maximum (mg/kg)	Surface Average (mg/kg)	All Depths Average (mg/kg)
G16	Yes	520	35.0	11	14	Yes	520	35.0	11	14	Yes	800	22.2	6	7	Yes	800	22.2	6	7	Yes	820	22.2	6	7
G17	Yes	140	34.4	13	14	Yes	140	34.4	13	14	Yes	210	26.9	13	11	Yes	210	26.9	13	11	Yes	210	26.9	13	11
G18	No	0	--	--	--	No	0	--	--	--	Yes	130	18.5	9	8	Yes	130	18.5	9	8	Yes	130	18.5	9	8
I5	Yes	110	31.2	17	18	Yes	110	31.2	17	18	Yes	340	27.8	15	12	Yes	340	27.8	15	12	Yes	340	27.8	15	12
I6	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--
I7	Yes	80	26.7	18	15	Yes	80	26.7	18	15	Yes	90	26.7	18	15	Yes	90	26.7	18	15	Yes	90	26.7	18	15
I8	Yes	20	13.2	7	8	Yes	20	13.2	7	8	Yes	20	13.2	7	8	Yes	20	13.2	7	8	Yes	20	13.2	7	8
I9	Yes	30	27.1	13	17	Yes	30	27.1	13	17	Yes	30	27.1	13	17	Yes	30	27.1	13	17	Yes	30	27.1	13	17
I10	Yes	30	27.5	17	20	Yes	30	27.5	17	20	Yes	30	27.5	17	20	Yes	30	27.5	17	20	Yes	30	27.5	17	20
I11	Yes	20	27.4	17	19	Yes	20	27.4	17	19	Yes	20	27.4	19	17	Yes	20	27.4	19	17	Yes	20	27.4	19	17
I12	Yes	60	24.0	13	13	Yes	60	24.0	13	13	Yes	60	24.0	13	13	Yes	60	24.0	13	13	Yes	60	24.0	13	13
I13	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--
I14	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--
I16	Yes	30	23.6	15	17	Yes	30	23.6	15	17	Yes	30	23.6	15	17	Yes	30	23.6	15	17	Yes	30	23.6	15	17
I17	Yes	60	32.5	15	19	Yes	60	32.5	15	19	Yes	80	26.6	8	12	Yes	80	26.6	8	12	Yes	80	26.6	8	12
I18	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--
I20	Yes	260	30.8	15	13	Yes	260	30.8	15	13	Yes	280	20.8	5	9	Yes	280	20.8	5	9	Yes	280	20.8	5	9
J1	Yes (a)	140	20.7	13	11	Yes (a)	140	20.7	13	11	Yes (a)	140	20.7	13	11	Yes (a)	140	20.7	13	11	Yes (a)	140	20.7	13	11
J2	Yes (a)	240	9.5	6	7	Yes (a)	240	9.5	6	7	Yes (a)	240	9.5	6	7	Yes (a)	240	9.5	6	7	Yes (a)	240	9.5	6	7
J4	Yes (a)	70	26.5	18	15	Yes (a)	70	26.5	18	15	Yes (a)	70	26.5	18	15	Yes (a)	70	26.5	18	15	Yes (a)	70	26.5	18	15
J5	No	0	--	--	--	No	0	--	--	--	Yes	130	23.9	14	14	Yes	130	23.9	14	14	Yes	130	23.9	14	14
J6	Yes	210	34.0	17	20	Yes	210	34.0	17	20	Yes	470	26.1	11	11	Yes	470	26.1	11	11	Yes	470	26.1	11	11
J7	Yes	70	34.8	17	19	Yes	70	34.8	17	19	Yes	310	29.1	5	9	Yes	310	29.1	5	9	Yes	310	29.1	5	9
J8	Yes	410	33.9	14	15	Yes	410	33.9	14	15	Yes	550	25.2	5	8	Yes	550	25.2	5	8	Yes	550	25.2	5	8
J9	Yes	200	29.6	17	16	Yes	200	29.6	17	16	Yes	180	29.6	17	16	Yes	180	29.6	17	16	Yes	180	29.6	17	16
J10	Yes	120	29.9	7	12	Yes	120	29.9	7	12	Yes	120	29.9	7	12	Yes	120	29.9	7	12	Yes	120	29.9	7	12
J11	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--
J12	Yes	80	32.0	16	17	Yes	80	32.0	16	17	Yes	150	28.8	16	15	Yes	150	28.8	16	15	Yes	150	28.8	16	15
J13	Yes (a)	30	32.9	16	15	Yes (a)	30	32.9	16	15	Yes (a)	70	18.3	10	12	Yes (a)	70	18.3	10	12	Yes (a)	70	18.3	10	12
J14	Yes (a)	240	24.4	13.3.	8	Yes (a)	240	24.4	13.3.	8	Yes (a)	240	24.4	15	9	Yes (a)	240	24.4	15	9	Yes (a)	240	24.4	13	8
J15	Yes (a)	70	28.2	9	13	Yes (a)	70	28.2	9	13	Yes (a)	70	28.2	9	13	Yes (a)	70	28.2	9	13	Yes (a)	290	21.8	9	6
J16	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--	Yes (a)	190	26.1	18	17
J17	Yes	40	31.5	16	19	Yes	40	31.5	16	19	Yes	120	26.8	12	12	Yes	120	26.8	12	12	Yes	120	26.8	12	12
J18	Yes	50	32.7	20	20	Yes	50	32.7	20	20	Yes	90	27.9	20	17	Yes	90	27.9	20	17	Yes	90	27.9	20	17
J19	Yes	50	29.6	20	18	Yes	50	29.6	20	18	Yes	50	29.6	20	18	Yes	50	29.6	20	18	Yes	50	29.6	20	18
J20	Yes	50	33.2	15	19	Yes	50	33.2	15	19	Yes	100	25.6	15	16	Yes	100	25.6	15	16	Yes	100	25.6	15	16
J21	Yes	30	33.4	20	19	Yes	30	33.4	20	19	Yes	90	27.2	9	11	Yes	90	27.2	9	11	Yes	90	27.2	9	11
J22	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--
J23	Yes	30	32.3	18	20	Yes	30	32.3	18	20	Yes	120	24.1	14	13	Yes	120	24.1	14	13	Yes	120	24.1	14	13
J24	Yes	370	32.5	14	15	Yes	370	32.5	14	15	Yes	450	29.7	9	13	Yes	450	29.7	9	13	Yes	450	29.7	9	13
J25	Yes	120	34.5	19	19	Yes	120	34.5	19	19	Yes	190	29.9	19	17	Yes	190	29.9	19	17	Yes	190	29.9	19	17
J26	Yes	190	41.3	25	24	Yes	190	41.3	25	24	Yes	190	41.3	25	24	Yes	190	41.3	25	24	Yes	740	29.8	11	13
K1	Yes	250	29.3	5	10	Yes	250	29.3	5	10	Yes	250	29.3	5	10	Yes	250	29.3	5	10	Yes	250	29.3	5	10
K2	Yes	110	34.3	17	16	Yes	110	34.3	17	16	Yes	160	27.3	11	11	Yes	160	27.3	11	11	Yes	160	27.3	11	11
K3	Yes	30	31.5	9	12	Yes	30	31.5	9	12	Yes	170	22.3	8	7	Yes	170	22.3	8	7	Yes	170	22.3	8	7
K4	Yes	270	32.2	6	8	Yes	270	32.2	6	8	Yes	290	8.7	6	5	Yes	290	8.7	6	5	Yes	290	8.7	6	5
K5	Yes	30	31.9	18	20	Yes	30	31.9	18	20	Yes	140	29.6	14	12	Yes	140	29.6	14	12	Yes	140	29.6	14	12
K6	Yes	210	24.8	5	9	Yes	210	24.8	5	9	Yes	230	24.8	5	9	Yes	230	24.8	5	9	Yes	230	24.8	5	9
K7	Yes	200	33.5	11	11	Yes	200	33.5	11	11	Yes	220	29.0	11	8	Yes	220	29.0	11	8	Yes	220	29.0	11	8
K8	Yes	290	19.2	9	11	Yes	290	19.2	9	11	Yes	290	19.2	9	11	Yes	290	19.2	9	11	Yes	290	19.2	9	11
L1	Yes	530	35.0	19	20	Yes	530	35.0	19	20	Yes	1,520	29.8	12	14	Yes	1,520	29.8	12	14	Yes	1,520	29.8	12	14
L3	No	0	--	--	--	No	0	--	--	--	Yes	920	19.6	13	11	Yes	920	19.6	13	11	Yes	920	19.6	13	11
M1	Yes	100	20.7	13	11	Yes	100	20.7	13	11	Yes	100	20.7	13	11	Yes	100	20.7	13	11	Yes	100	20.7	13	11
M2	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--
M3	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--	Yes (a)	320	23.9	11.6	7.2
M4	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--	Yes (a)	15	un-sampled property		
M5	Yes	10	28.0	20	19	Yes	10	28.0	20	19	Yes	10	28.0	20	19	Yes	10	28.0	20	19	Yes	10	28.0	20	19
M6	Yes	70	34.6	16	18	Yes	70	34.6	16	18	Yes	100	26.5	9	15	Yes	100	26.5	9	15	Yes	100	26.5	9	15
M7	Yes	130	33.3	20	15	Yes	130	33.3	20	15	Yes	130	25.4	13	12	Yes	130	25.4	13	12	Yes	130	25.4	13	12
M8	Yes	110	29.0	5	12	Yes	110	29.0	5	12	Yes	120	29.0	5	12	Yes	120	29.0	5	12	Yes	120	29.0	5	12
M9	Yes	290	34.4	5	14	Yes	290	34.4	5	14	Yes	400	27.9	5	9	Yes	400	27.9	5	9	Yes	400	27.9	5	9
M10	Yes	320	32.8	15	13	Yes	320	32.8	15	13	Yes	370	25.3	10	11	Yes	370	25.3	10	11	Yes	370	25.3	10	11

TABLE H-2
EXTENT OF REMEDIATION ON A PROPERTY-SPECIFIC BASIS
DRAFT - MAY 2011
CMS FOR SUSPECTED AIR DEPOSITION AND CULVERT 105 STUDY AREAS
FMC CORPORATION - MIDDLEPORT, NEW YORK

Property ID (see Notes 1, 2)	CMA 6A					CMA 6B					CMA 7A					CMA 7B					CMA 8				
	To Be Remediated? (Yes / No) (see Note 5)	Estimated Soil Volume to be Remediated (see Note 6)	Post-Remediation Arsenic Concentration at Properties to be Remediated (see Note 4)			To Be Remediated? (Yes / No) (see Note 5)	Estimated Soil Volume to be Remediated (see Note 6)	Post-Remediation Arsenic Concentration at Properties to be Remediated (see Note 4)			To Be Remediated? (Yes / No) (see Note 5)	Estimated Soil Volume to be Remediated (see Note 6)	Post-Remediation Arsenic Concentration at Properties to be Remediated (see Note 4)			To Be Remediated? (Yes / No) (see Note 5)	Estimated Soil Volume to be Remediated (see Note 6)	Post-Remediation Arsenic Concentration at Properties to be Remediated (see Note 4)			To Be Remediated? (Yes / No) (see Note 5)	Estimated Soil Volume to be Remediated (see Note 6)	Post-Remediation Arsenic Concentration at Properties to be Remediated (see Note 4)		
		(cu.yds.)	Maximum (mg/kg)	Surface Average (mg/kg)	All Depths Average (mg/kg)		(cu.yds.)	Maximum (mg/kg)	Surface Average (mg/kg)	All Depths Average (mg/kg)		(cu.yds.)	Maximum (mg/kg)	Surface Average (mg/kg)	All Depths Average (mg/kg)		(cu.yds.)	Maximum (mg/kg)	Surface Average (mg/kg)	All Depths Average (mg/kg)		(cu.yds.)	Maximum (mg/kg)	Surface Average (mg/kg)	All Depths Average (mg/kg)
M11	Yes	270	23.2	5	7	Yes	270	23.2	5	7	Yes	270	23.2	5	7	Yes	270	23.2	5	7	Yes	270	23.2	5	7
M12	Yes	180	20.5	5	7	Yes	180	20.5	5	7	Yes	120	26.6	10	9	Yes	120	26.6	10	9	Yes	120	26.6	10	9
M13	Yes	180	23.2	8	11	Yes	180	23.2	8	11	Yes	180	23.2	8	11	Yes	180	23.2	8	11	Yes	180	23.2	8	11
M14	Yes	70	29.9	17	18	Yes	70	29.9	17	18	Yes	70	29.9	17	18	Yes	70	29.9	17	18	Yes	70	29.9	17	18
M15	Yes	80	30.8	13	19	Yes	80	30.8	13	19	Yes	160	27.9	9	14	Yes	160	27.9	9	14	Yes	160	27.9	9	14
M16	Yes	250	30.5	17	13	Yes	250	30.5	17	13	Yes	280	26.1	12	10	Yes	280	26.1	12	10	Yes	280	26.1	12	10
M17	Yes	400	20.6	10	9	Yes	400	20.6	10	9	Yes	400	20.6	10	9	Yes	400	20.6	10	9	Yes	400	20.6	10	9
M18	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--	Yes (a)	100	29.3	18	18
M19	Yes	310	35.0	14	10	Yes	310	35.0	14	10	Yes	300	26.4	10	8	Yes	300	26.4	10	8	Yes (a)	650	26.4	8	7
M20	Yes	310	35.0	16	11	Yes	310	35.0	16	11	Yes	340	29.6	9	8	Yes	340	29.6	9	8	Yes (a)	540	29.6	9	8
M21	Yes	180	34.3	15	17	Yes	180	34.3	15	17	Yes	250	30.0	5	10	Yes	250	30.0	5	10	Yes	250	30.0	5	10
M22	Yes	370	26.8	5	8	Yes	370	26.8	5	8	Yes	370	26.8	5	8	Yes	370	26.8	5	8	Yes	370	26.8	5	8
M23	Yes	280	32.8	5	11	Yes	280	32.8	5	11	Yes	340	19.4	5	8	Yes	340	19.4	5	8	Yes	340	19.4	5	8
M24	Yes	160	24.6	7	11	Yes	160	24.6	7	11	Yes	160	24.6	7	11	Yes	160	24.6	7	11	Yes	160	24.6	7	11
M25	Yes	190	25.4	5	10	Yes	190	25.4	5	10	Yes	190	25.4	5	10	Yes	190	25.4	5	10	Yes	190	25.4	5	10
M26	Yes	300	31.4	5	7	Yes	300	31.4	5	7	Yes	320	5.0	5	5	Yes	320	5.0	5	5	Yes	320	5.0	5	5
M27	Yes	20	21.5	16	14	Yes	20	21.5	16	14	Yes	20	21.5	16	14	Yes	20	21.5	16	14	Yes	20	21.5	16	14
N5	Yes	110	28.2	19	16	Yes	110	28.2	19	16	Yes	110	28.2	19	16	Yes	110	28.2	19	16	Yes	110	28.2	19	16
N9	Yes	40	23.9	16	17	Yes	40	23.9	16	17	Yes	40	23.9	16	17	Yes	40	23.9	16	17	Yes	40	23.9	16	17
N10	Yes	30	24.7	16	17	Yes	30	24.7	16	17	Yes	30	24.7	16	17	Yes	30	24.7	16	17	Yes	30	24.7	16	17
N13	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--	No	190	29.6	16	19
N14	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--	No	150	29.6	12	12
NORCO / Q4 (5 parcels)	Yes	3,420	54.1	13	12	Yes	3,420	54.1	13	12	Yes	3,420	54.1	13	13	Yes	3,420	54.1	13	13	Yes	6,160	8.7	6	5
O1	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--
O2	Yes	20	34.8	15	20	Yes	20	34.8	15	20	Yes	30	26.5	15	16	Yes	30	26.5	15	16	Yes	30	26.5	15	16
O3	Yes	110	29.2	16	15	Yes	110	29.2	16	15	Yes	110	29.2	16	15	Yes	110	29.2	16	15	Yes	110	29.2	16	15
O4	Yes	70	34.5	13	19	Yes	70	34.5	13	19	Yes	150	28.7	17	13	Yes	150	28.7	17	13	Yes	150	28.7	17	13
O5	Yes	170	30.0	13	14	Yes	170	30.0	13	14	Yes	190	30.0	13	14	Yes	190	30.0	13	14	Yes	190	30.0	13	14
O6	Yes	180	19.8	11	11	Yes	180	19.8	11	11	Yes	140	19.8	11	11	Yes	140	19.8	11	11	Yes	140	19.8	11	11
O7	Yes	1,130	28.1	12	11	Yes	1,130	28.1	12	11	Yes	1,050	28.1	12	11	Yes	1,050	28.1	12	11	Yes	1,060	28.1	12	11
Q1	Yes	50	33.1	13	16	Yes	50	33.1	13	16	Yes	100	28.7	8	11	Yes	100	28.7	8	11	Yes	100	28.7	8	11
Q2	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--	No	0	--	--	--	Yes	70	25.2	12	13
R1a North	Yes	15,150	34.7	12	14	Yes	15,150	34.7	12	14	Yes	19,420	29.9	8	11	Yes	19,420	29.9	8	11	Yes	19,700	29.9	8	11
R1a South	Yes	3,820	49.1	25	25	Yes	3,820	49.1	25	25	Yes	3,910	49.1	21	23	Yes	3,910	49.1	21	23	Yes	14,870	29.5	6	7
R1b	Yes	4,430	47.7	23	20	Yes	4,430	47.7	23	20	Yes	4,650	47.7	23	20	Yes	4,650	47.7	23	20	Yes	21,360	29.9	13	13
R1d	Yes	460	31.7	20	17	Yes	460	31.7	20	17	Yes	2,590	29.1	19	16	Yes	2,590	29.1	19	16	Yes	5,980	29.1	19	16
R3	No	0	--	--	--	No	0	--	--	--	Yes	40	27.0	12	10	Yes	40	27.0	12	10	Yes	40	27.0	12	10
R4	Yes	70	6.6	5	5	Yes	70	6.6	5	5	Yes	70	6.6	5	5	Yes	70	6.6	5	5	Yes	70	6.6	5	5
S1	Yes	360	23.9	12	13	Yes	360	23.9	12	13	Yes	200	23.9	17	15	Yes	200	23.9	17	15	Yes	200	23.9	17	15
S2	Yes	130	33.4	17	18	Yes	130	33.4	17	18	Yes	210	24.0	5	10	Yes	210	24.0	5	10	Yes	210	24.0	5	10
S3	Yes	150	34.3	17	19	Yes	150	34.3	17	19	Yes	190	30.0	15	16	Yes	190	30.0	15	16	Yes	190	30.0	15	16
S4	Yes	310	34.9	19	18	Yes	310	34.9	19	18	Yes	500	27.4	15	15	Yes	500	27.4	15	15	Yes	550	27.4	15	15
S5	Yes	120	33.2	5	19	Yes	120	33.2	5	19	Yes	290	24.2	10	9	Yes	290	24.2	10	9	Yes	300	24.2	10	9
S6	Yes	60	27.1	13	19	Yes	60	27.1	13	19	Yes	60	27.1	13	19	Yes	60	27.1	13	19	Yes	60	27.1	13	19
S7	Yes	160	32.5	17	16	Yes	160	32.5	17	16	Yes	210	29.0	17	14	Yes	210	29.0	17	14	Yes	210	29.0	17	14
S8	Yes	70	25.4	18	15	Yes	70	25.4	18	15	Yes	70	25.4	18	15	Yes	70	25.4	18	15	Yes	70	25.4	18	15
S9	Yes	150	33.5	19	20	Yes	150	33.5	19	20	Yes	260	29.6	11	15	Yes	260	29.6	11	15	Yes	260	29.6	11	15
S10	Yes	110	31.1	16	20	Yes	110	31.1	16	20	Yes	200	29.1	17	18	Yes	200	29.1	17	18	Yes	200	29.1	17	18
S11	Yes	140	34.9	17	16	Yes	140	34.9	17	16	Yes	150	26.8	17	14	Yes	150	26.8	17	14	Yes	150	26.8	17	14
S12	Yes	380	34.7	18	19	Yes	380	34.7	18	19	Yes	630	29.3	13	14	Yes	630	29.3	13	14	Yes	630	29.3	13	14
S13	Yes	140	34.5	19	20	Yes	140	34.5	19	20	Yes	220	29.3	18	18	Yes	220	29.3	18	18	Yes	230	29.3	18	18
S14	Yes	240	34.2	9	15	Yes	240	34.2	9	15	Yes	370	25.8	9	9	Yes	370	25.8	9	9	Yes	370	25.8	9	9
S15	Yes	390	24.4	5	7	Yes	390	24.4	5	7	Yes	390	24.4	9	8	Yes	390	24.4	9	8	Yes	390	24.4	9	8
S16	Yes	220	31.3	5	12	Yes	220	31.3	5	12	Yes	290	29.3	5	9	Yes	290	29.3	5	9	Yes	290	29.3	5	9
S17	Yes	290	32.3	8	14	Yes	290	32.3	8	14	Yes	340	24.3	5	7	Yes	340	24.3	5	7	Yes	340	24.3	5	7
S18	Yes	310	34.3	5	9	Yes	310	34.3	5	9	Yes	390	16.5	5	7	Yes	390	16.5	5	7	Yes	390	16.5	5	7
S19	Yes	300	17.8	5	8	Yes	300	17.8	5	8	Yes	300	17.8	5	8	Yes	300	17.8	5	8	Yes	300	17.8	5	8
S20	Yes	160	34.0	15	16	Yes	160	34.0	15	16	Yes	230	26.3	9	10	Yes	230	26.3	9	10	Yes	230	26.3	9	10
S21	Yes	120	33.4	15	19	Yes	120	33.4	15	19	Yes	330	24.1	5	7	Yes	330	24.1	5	7	Yes	330	24.1	5	7
S22	Yes	110	27.7	15	14	Yes	110	27.7	15	14	Yes	110	27.7	15	14	Yes	110	27.7	15	14	Yes	110	27.7	15	14
S23	Yes	150	33.6	16	18	Yes	150	33.6	16	18	Yes	250	21.0	5	8	Yes	250	21.0	5	8	Yes	250	21.0	5	8

TABLE H-2
EXTENT OF REMEDIATION ON A PROPERTY-SPECIFIC BASIS
DRAFT - MAY 2011
CMS FOR SUSPECTED AIR DEPOSITION AND CULVERT 105 STUDY AREAS
FMC CORPORATION - MIDDLEPORT, NEW YORK

Property ID (see Notes 1, 2)	CMA 6A				
	To Be Remediated? (Yes / No) (see Note 5)	Estimated Soil Volume to be Remediated (see Note 6) (cu.yds.)	Post-Remediation Arsenic Concentration at Properties to be Remediated (see Note 4)		
			Maximum (mg/kg)	Surface Average (mg/kg)	All Depths Average (mg/kg)
S24	Yes	110	33.5	17	19
S25	Yes	290	29.9	17	16
S27	Yes	140	30.6	19	18
T1	Yes	250	25.8	5	10
T2	Yes	310	31.3	5	9
T3	Yes	270	27.1	13	13
T6	Yes	50	28.6	16	17
U4	Yes	120	30.7	17	17
Roy Hart School	No	0	--	--	--
Culvert 105 crossing 7 streets	No	0	--	--	--

Property ID (see Notes 1, 2)	CMA 6B				
	To Be Remediated? (Yes / No) (see Note 5)	Estimated Soil Volume to be Remediated (see Note 6) (cu.yds.)	Post-Remediation Arsenic Concentration at Properties to be Remediated (see Note 4)		
			Maximum (mg/kg)	Surface Average (mg/kg)	All Depths Average (mg/kg)
S24	Yes	110	33.5	17	19
S25	Yes	290	29.9	17	16
S27	Yes	140	30.6	19	18
T1	Yes	250	25.8	5	10
T2	Yes	310	31.3	5	9
T3	Yes	270	27.1	13	13
T6	Yes	50	28.6	16	17
U4	Yes	120	30.7	17	17
Roy Hart School	Yes	13,490	34.7	14	9
Culvert 105 crossing 7 streets	No	0	--	--	--

Property ID (see Notes 1, 2)	CMA 7A				
	To Be Remediated? (Yes / No) (see Note 5)	Estimated Soil Volume to be Remediated (see Note 6) (cu.yds.)	Post-Remediation Arsenic Concentration at Properties to be Remediated (see Note 4)		
			Maximum (mg/kg)	Surface Average (mg/kg)	All Depths Average (mg/kg)
S24	Yes	250	25.7	5	8
S25	Yes	290	29.9	17	16
S27	Yes	140	29.0	16	17
T1	Yes	250	25.8	5	10
T2	Yes	400	21.6	5	7
T3	Yes	270	27.1	13	13
T6	Yes	50	28.6	16	17
U4	Yes	180	29.4	15	16
Roy Hart School	No	0	--	--	--
Culvert 105 crossing 7 streets	No	0	--	--	--

Property ID (see Notes 1, 2)	CMA 7B				
	To Be Remediated? (Yes / No) (see Note 5)	Estimated Soil Volume to be Remediated (see Note 6) (cu.yds.)	Post-Remediation Arsenic Concentration at Properties to be Remediated (see Note 4)		
			Maximum (mg/kg)	Surface Average (mg/kg)	All Depths Average (mg/kg)
S24	Yes	250	25.7	5	8
S25	Yes	290	29.9	17	16
S27	Yes	140	29.0	16	17
T1	Yes	250	25.8	5	10
T2	Yes	400	21.6	5	7
T3	Yes	270	27.1	13	13
T6	Yes	50	28.6	16	17
U4	Yes	180	29.4	15	16
Roy Hart School	Yes	17,800	29.0	9	7
Culvert 105 crossing 7 streets	No	0	--	--	--

Property ID (see Notes 1, 2)	CMA 8				
	To Be Remediated? (Yes / No) (see Note 5)	Estimated Soil Volume to be Remediated (see Note 6) (cu.yds.)	Post-Remediation Arsenic Concentration at Properties to be Remediated (see Note 4)		
			Maximum (mg/kg)	Surface Average (mg/kg)	All Depths Average (mg/kg)
S24	Yes	250	25.7	5	8
S25	Yes	290	29.9	17	16
S27	Yes	140	29.0	16	17
T1	Yes	250	25.8	5	10
T2	Yes	400	21.6	5	7
T3	Yes	270	27.1	13	13
T6	Yes	50	28.6	16	17
U4	Yes	180	29.4	15	16
Roy Hart School	Yes	17,800	29.0	9	7
Culvert 105 crossing 7 streets	Yes	1,690	un-sampled property		

CMA 6A # Properties to be Remediated	Total Est'd. Volume to be Remediated
157	85,000 cu.yds.

CMA 6B # Properties to be Remediated	Total Est'd. Volume to be Remediated
158	98,000 cu.yds.

CMA 7A # Properties to be Remediated	Total Est'd. Volume to be Remediated
164	101,000 cu.yds.

CMA 7B # Properties to be Remediated	Total Est'd. Volume to be Remediated
165	119,000 cu.yds.

CMA 8 # Properties to be Remediated	Total Est'd. Volume to be Remediated
179	162,000 cu.yds.

Notes:

1. With agreement by the Agencies, eighteen CMS properties (B8, F7, F11, F12, G5, G8, I15, I19, L2, M4, N15, N16, P10, S26, T5, R1a-b, AC5 and AE2) have not been sampled and were not evaluated for remediation under the CMAs, with the exception of three properties (B8, M4 and AC5) with assumed remediation along the Culvert 105 buried pipe under CMA 8.
FMC will offer to perform soil sampling anad analysis at these un-sampled properties during the CMI, pursuant to a process approved by the Agencies. If written access permission is obtained from the property owner, then sampling and analysis will be conducted.
2. The information shown in this table has been compiled to support development of this Draft CMS Report. Design remediation limits and volumes are estimates based on available data.
The actual design limits and volumes of soil expected to be remediated will be determined during the remedial design activities of the Corrective Measures Implementation, which will occur after selection of the final corrective measure(s) by the Agencies.
3. The identification of land usage (i.e., residential, commercial, industrial, recreational, open land, agricultural, public, institutional, railroad, utility) considered for each property is taken from Figure C-2 in Appendix C of the Draft CMS Report.
4. Post-remediation soil arsenic concentrations are calculated as described in Section II of Appendix H.
-- = No remediation at this property; see CMA 1 for concentration information.
5. (a) = Includes removal of existing Culvert 105 buried pipe and replacement in-kind.
6. The estimated volume includes an upward adjustment by thirty percent to account for implementation factors (e.g., based on practicability of remediation within the estimated areas and depths identified to be remediated, or other property-specific conditions).
An additional nine percent was applied to the estimated volume of soil to be remediated at each of the eight large properties (R1a-north, R1a-south, R1b, R1d, AD1, AE1, AF1 and the non-ICM area of the Roy-Hart School Property) as calculated by the property-wide average method under CMAs 3 through 8 (see Section II).

TABLE H-3
COMPARISON OF DATA AVERAGING METHODS FOR LARGE PROPERTIES UNDER CMA 8
DRAFT - MAY 2011
CMS FOR SUSPECTED AIR DEPOSITION AND CULVERT 105 STUDY AREAS
FMC CORPORATION - MIDDLEPORT, NEW YORK

Large Property	Property-Wide Data Averaging Method			Grid Sub-Area Data Averaging Method		
	# Sample Points to be Remediated	Estimated Area to be Remediated (acres)	Estimated Volume of Soil to be Remediated (cu. yds.)	# Sample Points to be Remediated	Estimated Area to be Remediated (acres)	Estimated Volume of Soil to be Remediated (cu. yds.)
Non-ICM Area of Roy-Hart School Property	67	12.7	12,554	67	12.7	12,554
AD1	93	5.4	9,410	95	5.9	9,649
AE1	77	2.4	4,082	77	2.4	4,082
AF1	86	3.0	5,008	86	3.0	5,008
R1a-north	90	13.6	13,901	91	14.2	14,160
R1a-south	42	6.9	10,490	42	6.9	10,490
R1b	93	16.8	15,066	108	22.8	18,822
R1d	7	1.8	1,821	16	6.2	4,209
	Total:	62.6	72,332	Total:	74.1	78,974

Difference between (increase in) volume calculated using grid sub-area method compared to property-wide data averaging method:

= { (78,974 - 72,332) / 72,332 } * 100% = 9 %

Notes:

1. Data averaging grid sub-areas shown on Figures H-9a to H-9e.
2. Increase in volume (nine percent) from the example calculation for CMA 8 above was used as an upward adjustment factor to estimate soil remediation volumes for the eight large properties (listed above) under CMAs 3 through 8.

TABLE H-4
SUMMARY OF POST-REMEDIATION SOIL ARSENIC CONCENTRATIONS BY PROPERTY USAGE TYPE (AT PROPERTIES TO BE REMEDIATED)
DRAFT - MAY 2011
CMS FOR SUSPECTED AIR DEPOSITION AND CULVERT 105 STUDY AREAS
FMC CORPORATION - MIDDLEPORT, NEW YORK

Property Usage Type (1)	Post-Remediation Soil Arsenic Concentrations at Properties Identified to be Remediated Under the CMA																										
	CMA 2			CMA 3			CMA 4			CMA5			CMA 6A			CMA 6B			CMA 7A			CMA 7B			CMA 8		
	Maximum (mg/kg)	Surface Average (mg/kg)	All Depths Average (mg/kg)	Maximum (mg/kg)	Surface Average (mg/kg)	All Depths Average (mg/kg)	Maximum (mg/kg)	Surface Average (mg/kg)	All Depths Average (mg/kg)	Maximum (mg/kg)	Surface Average (mg/kg)	All Depths Average (mg/kg)	Maximum (mg/kg)	Surface Average (mg/kg)	All Depths Average (mg/kg)	Maximum (mg/kg)	Surface Average (mg/kg)	All Depths Average (mg/kg)	Maximum (mg/kg)	Surface Average (mg/kg)	All Depths Average (mg/kg)	Maximum (mg/kg)	Surface Average (mg/kg)	All Depths Average (mg/kg)	Maximum (mg/kg)	Surface Average (mg/kg)	All Depths Average (mg/kg)
Residential	20	7	7	40	14	15	60	21	21	79	23	22	35	13	14	35	13	14	30	11	12	30	11	12	30	11	12
Public/Institutional	20	8	7	57	21	21	57	21	21	64	23	21	31	12	11	31	12	11	28	9	10	28	9	10	28	9	10
Agricultural/Commercial	20	6	6	74	29	26	59	26	24	77	31	27	49	24	23	49	24	23	49	23	22	49	23	22	30	10	10
Industrial/Railroad/Utility	20	6	5	78	16	13	60	18	16	78	19	15	78	16	13	78	16	13	78	16	13	78	16	13	30	10	10
Roy-Hart School (Non-ICM)	20	6	5	no further action under this CMA (2)			no further action under this CMA			no further action under this CMA			no further action under this CMA (2)			35	14	9	no further action under this CMA (2)			29	9	7	29	9	7
All Properties	20	7	7	78	14	16	60	21	21	79	23	22	78	13	14	78	13	14	78	11	12	78	11	12	30	11	11

Notes:
1. Property usage type identified for individual properties in Table H-2; see Note 2 of Table H-1 regarding use of legal mechanisms for non-residential property usage.
2. CMAs 3, 6A and 7A include use of legal mechanism for the non-ICM area of the school property; further action to be performed if the use of the property changes to residential.

TABLE H-5
EXTENT OF REMEDIATION ON A STUDY AREA-WIDE BASIS
DRAFT – MAY 2011
CMS REPORT FOR SUSPECTED AIR DEPOSITION AND CULVERT 105 STUDY AREAS
FMC CORPORATION – MIDDLEPORT, NEW YORK

Corrective Measures Alternative	Number of Properties to be Remediated	Total Estimated Area of Soil to be Remediated (acres)	Total Estimated Volume of Soil to be Remediated (cubic yards)	Estimated Length of Culvert 105 Buried Pipe to be Replaced (linear feet)	Figure(s) in Appendix H Showing the Estimated Limits of Remediation
1	0	0	0	0	H-1
2	181	127	228,000	1,325	H-2a, H-2b
3	152	50	69,000	1,185	H-3a, H-3b
4	86	26	38,000	900	H-4a, H-4b
5	48	18	28,000	900	H-5a, H-5b
6A	157	62	85,000	1,185	H-6a, H-6c
6B	158	73	98,000	1,185	H-6b, H-6c
7A	164	71	101,000	1,185	H-7a, H-7c
7B	165	85	119,000	1,185	H-7b, H-7c
8	179	104	162,000	3,025	H-8a to H-8d