FMC Corporation

Peroxygen Chemicals Division
Box 845
Buffalo New York 14240
716 879 0400

JSLV JH

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

December 19, 1995

Regional Hazardous Waste Remediation Engineer
Division of Hazardous Waste Remediation
New York State Department of
Environmental Conservation
270 Michigan Avenue
Buffalo, NY 14203-2999

Re: FMC Corporation Peroxygen Chemicals Division;
Order on Consent; Index No.: B9-0431-93-06
NYSDEC Site No. 915025
Preliminary Site Assessment
Additional Investigation and Remedial Measures Program

Dear Sir:

In accordance with the requirements of the Order on Consent, I have enclosed three (3) copies (one unbound) of the report entitled: "Preliminary Site Assessment Additional Investigation and Remedial Measures Program", FMC Corporation Peroxygen Chemicals Division, Tonawanda, New York Site, Site No. 915025, dated December, 1995.

The report documents that the only hazardous waste found at the site was soil contaminated with PCBs at concentrations exceeding 50 ppm; that all such soil was removed from the site and lawfully disposed; and that there is no evidence of any other hazardous waste present at the site. Consequently, the report recommends that the Site be removed from the State's Inactive Hazardous Waste Disposal Site Registry (i.e., "delisted").

If you have any questions concerning the report or its conclusions, please contact me at the above address or call me at (716) 879-0405.

Respectfully submitted,

Richard K. Wise
Environmental Manager

cmf:enclosures

cc: Distribution List

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   New York State Department of Health
   2 University Place
   Albany, New York 12203

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   New York State Department of Environmental Conservation
   50 Wolf Road
   Albany, New York 12233

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   New York State Department of Environmental Conservation
   270 Michigan Avenue
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   New York State Department of Environmental Conservation
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   270 Michigan Avenue
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   Hodgson, Russ, Andrews, Woods & Goodyear
   1800 One M&T Plaza
   Buffalo, New York 14203

New York State Department of Environmental Conservation
270 Michigan Avenue, Buffalo, New York 14203-2999
(716) 851-7220

Michael D. Zagata
Commissioner

October 25, 1995

Mr. Richard K. Wise, Environmental Manager
FMC Corporation
Peroxygen Chemicals Division
P.O. Box 845
Buffalo, NY 14240

Dear Mr. Wise:

FMC Corporation
Former Waste Disposal Area
DEC Site No. 915025

We have reviewed the September 22 Work Plan for excavating the two PCB contaminated areas reported in the January, 1995 Preliminary Site Assessment (PSA) for the above referenced DEC Inactive Hazardous Waste Disposal Site. The Work Plan as submitted to us is approved.

During our recent discussions on this project, we note that the backfill to be used in the excavations is from two sources: excavation for a pond at 2625 Bedell Road, Grand Island, and excavation for a project at the Roswell Park Institute, Buffalo. To date, we have made field inspections of the two excavated areas, and note that confirmatory soil samples from the open excavation, cited in the Work Plan Section "Post Excavation Testing" have been analyzed. We understand that the excavations have now been extended to the point where the confirmatory analyses of the soil samples from the open excavations indicate that the PCB's at the soil surface at levels above 1 ppm and in the soil subsurface above 10 ppm have been removed.

As you know, the purpose of the PSA Program is to assign a permanent classification to this DEC Site, and that the present classification, 2a, is temporary. The next step in this classification process is the complete documentation, as mentioned in the September 22, 1995

Work Plan (page 4) of this excavation project. This report should be written as an independent (stand alone) document, which describes all investigation and remediation activity since the January, 1995 PSA Report. If you have questions on this correspondence, please contact us at 716-851-7220.

Sincerely yours,

John W. Hyden, PhD, P.E.
Environmental Engineer

TRANSMITTAL INFORMATION SHEET

DATE: 10/12/95

The following pages are for:

NAME: Rich Wise / Tony Miserendola

FIRM: EMC

ADDRESS: _____

_____

_____

FAX NUMBER: 879-0433, 0416

FROM: Candace Fox

SPECIAL INSTRUCTIONS: Rush PCB results

_____

_____

_____

_____

Total number of pages 5 (including information sheet).

If you have any problems during the transmission of these documents, please call (716) 691-2600, extension_____.

RECRA ENVIRONMENTAL, INC.
10 Hazelwood Drive
Amherst, New York 14228

Telephone: (716) 691-2600

Fax No: (716) 691-3011

WOODWARD CLYDE CONSULTANTS
ANALYTICAL RESULTS/CHRONOLOGY

Client Sample ID:	AB	AN	ANS	AS	AS53
Job Number & Lab Sample ID:	A95-5422 A5542205	A95-5422 A5542203	A95-5422 A5542204	A95-5422 A5542206	A95-5422 A5542217
Sample Date:	10/10/95	10/10/95	10/10/95	10/10/95	10/11/95
TCLP Date/HT Met:	- -	- -	- -	- -	- -
Extraction Date/HT Met:	10/11/95 15:30 YES	10/11/95 15:30 YES	10/11/95 15:30 YES	10/11/95 15:30 YES	10/11/95 15:30 YES
Analysis Date/Ht Met:	10/12/95 09:11 YES	10/12/95 09:10 YES	10/12/95 09:26 YES	10/12/95 09:25 YES	10/12/95 10:59 YES
Dilution Factor:	1.0	20.0	1.0	1.0	20.0

Analyte (MG/KG)	PQL	Result	Result	Result	Result	Result
METHOD 8080 - POLYCHLORINATED BIPHENYLS						
Aroclor 1016	1.0	1.0 U	2.2 U	1.0 U	1.0 U	2.2 U
Aroclor 1221	1.0	1.0 U	2.2 U	1.0 U	1.0 U	2.2 U
Aroclor 1232	1.0	1.0 U	2.2 U	1.0 U	1.0 U	2.2 U
Aroclor 1242	1.0	1.0 U	2.2 U	1.0 U	1.0 U	2.2 U
Aroclor 1248	1.0	1.0 U	2.2 U	1.0 U	1.0 U	2.2 U
Aroclor 1254	1.0	1.0 U	2.2 U	1.0 U	1.0 U	2.2 U
Aroclor 1260	1.0	1.4	32	1.0	0.31 J	54
SURROGATES						
Tetrachloro-m-xylene	27-132	100	110	111	98	110
Decachlorobiphenyl	58-150	110	110	116	110	140

AB AN

* Indicates Result is Outside QC Limits
NA = Not Applicable

Recra Environmental, Inc.

Client Sample ID: / Job Number & Lab Sample ID: / Sample Date:		AW2 A95-5422 A5542201 10/10/95	AWS2 A95-5422 A5542202 10/10/95	DB A95-5422 A5542207 10/11/95	DD A95-5422 A5542208 10/11/95	DE A95-5422 A5542209 10/11/95
TCLP Date/HT Met:		- -	- -	- -	- -	- -
Extraction Date/HT Met:		10/11/95 15:30 YES	10/11/95 15:30 YES	10/11/95 15:30 YES	10/11/95 15:30 YES	10/11/95 15:30 YES
Analysis Date/Ht Met:		10/12/95 09:10 YES	10/12/95 09:26 YES	10/12/95 09:39 YES	10/12/95 09:54 YES	10/12/95 09:55 YES
Dilution Factor:		1.0	1.0	1.0	1.0	1.0
Analyte (MG/KG)	PQL	Result	Result	Result	Result	Result
METHOD 8080 - POLYCHLORINATED BIPHENYLS						
Aroclor 1016	1.0	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Aroclor 1221	1.0	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Aroclor 1232	1.0	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Aroclor 1242	1.0	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Aroclor 1248	1.0	1.0 U	1.1	1.0 U	1.0 U	1.0 U
Aroclor 1254	1.0	1.0 U	1.0 U	1.0 U	1.0 U	0.75 J
Aroclor 1260	1.0	1.0 U	0.24 J	1.0 U	1.0 U	0.81 J
SURROGATES						
Tetrachloro-m-xylene	27-132	148 *	105	99	100	83
Decachlorobiphenyl	58-150	90	95	110	114	95

reanalyze

* Indicates Result is Outside QC Limits
NA = Not Applicable

Client Sample ID:	DES2	DN3	DNS2	DS	DSS2
Job Number & Lab Sample ID:	A95-5422 A5542210	A95-5422 A5542215	A95-5422 A5542216	A95-5422 A5542211	A95-5422 A5542212
Sample Date:	10/11/95	10/11/95	10/11/95	10/10/95	10/11/95
TCLP Date/HT Met:	- -	- -	- -	- -	- -
Extraction Date/HT Met:	10/11/95 15:30 YES	10/11/95 15:30 YES	10/11/95 15:30 YES	10/11/95 15:30 YES	10/11/95 15:30 YES
Analysis Date/Ht Met:	10/12/95 09:55 YES	10/12/95 13:24 YES	10/12/95 12:15 YES	10/12/95 10:08 YES	10/12/95 10:10 YES
Dilution Factor:	1.0	40.0	1.0	1.0	1.0

Analyte (MG/KG)	PQL	Result	Result	Result	Result	Result
METHOD 8080 - POLYCHLORINATED BIPHENYLS						
Aroclor 1016	1.0	1.0 U	5.8 U	1.0 U	1.0 U	1.0 U
Aroclor 1221	1.0	1.0 U	5.8 U	1.0 U	1.0 U	1.0 U
Aroclor 1232	1.0	1.0 U	5.8 U	1.0 U	1.0 U	1.0 U
Aroclor 1242	1.0	1.0 U	5.8 U	1.0 U	1.0 U	1.0 U
Aroclor 1248	1.0	1.0 U	5.8 U	1.0 U	1.0 U	1.0 U
Aroclor 1254	1.0	1.0 U	42	1.0 U	1.0 U	1.0 U
Aroclor 1260	1.0	0.43 J	5.8 U	2.4	0.92 J	2.8
SURROGATES						
Tetrachloro-m-xylene	27-132	123	0 *	118	104	110
Decachlorobiphenyl	58-150	116	0 *	117	117	111

DN3

* Indicates Result is Outside QC Limits
NA = Not Applicable

	PQL					
Client Sample ID:		DW		DW5		
Job Number & Lab Sample ID:		A95-5422 A5542213		A95-5422 A5542214		
Sample Date:		10/10/95		10/11/95		
TCLP Date/Ht Met:		- -		- -		
Extraction Date/Ht Met:		10/11/95 15:30 YES		10/11/95 15:30 YES		
Analysis Date/Ht Met:		10/12/95 10:10 YES		10/12/95 10:45 YES		
Dilution Factor:		1.0		1.0		
Analyte (MG/KG)	PQL	Result		Result		
METHOD 8080 - POLYCHLORINATED BIPHENYLS						
Aroclor 1016	1.0	1.0	U	1.0	U	
Aroclor 1221	1.0	1.0	U	1.0	U	
Aroclor 1232	1.0	1.0	U	1.0	U	
Aroclor 1242	1.0	1.0	U	1.0	U	
Aroclor 1248	1.0	1.0	U	1.0	U	
Aroclor 1254	1.0	1.0	U	1.0	U	
Aroclor 1260	1.0	1.5		0.60	J	
SURROGATES						
Tetrachloro-m-xylene	27-132	122		115		
Decachlorobiphenyl	58-150	120		127		

* Indicates Result is Outside QC Limits
NA = Not Applicable

TRANSMITTAL INFORMATION SHEET

DATE: 10/13/95

The following pages are for:

NAME: Tony Misencola

FIRM: Woodward-Clyde

ADDRESS: _____

_____

_____

FAX NUMBER: 691-4560

FROM: Candace Fox

SPECIAL INSTRUCTIONS: _____

_____

_____

_____

_____

Total number of pages 2 (including information sheet).

If you have any problems during the transmission of these documents, please call (716) 691-2600, extension_____.

RECRA ENVIRONMENTAL, INC.
10 Hazelwood Drive
Amherst, New York 14228

Telephone: (716) 691-2600

Fax No: (716) 691-3011

Client Sample ID:	AE3	AE55	WIPE 1012		
Job Number & Lab Sample ID:	A95-5455 A5545503	A95-5455 A5545504	A95-5455 A5545502		
Sample Date:	10/12/95	10/12/95	10/12/95		
TCLP Date/Ht Met:	- -	- -			
Extraction Date/Ht Met:	10/12/95 23:30 YES	10/12/95 23:30 YES			
Analysis Date/Ht Met:	10/13/95 YES	10/13/95 YES			
Dilution Factor:	50.0	1.0			

Analyte (MG/KG)	PQL	Result	Result	Result		
METHOD 8080 - POLYCHLORINATED BIPHENYLS						
Aroclor 1016	1.0	5.0 U	1.0 U	NA		
Aroclor 1221	1.0	5.0 U	1.0 U	NA		
Aroclor 1232	1.0	5.0 U	1.0 U	NA		
Aroclor 1242	1.0	5.0 U	1.0 U	NA		
Aroclor 1248	1.0	5.0 U	1.0 U	NA		
Aroclor 1254	1.0	5.0 U	1.0 U	NA		
Aroclor 1260	1.0	180	1.3	NA		
SURROGATES						
Tetrachloro-m-xylene	27-132	0 D	113	NA		
Decachlorobiphenyl	58-150	0 D	116	NA		

TCLP Date/Ht Met:	~~BA13~~		- -		
Extraction Date/Ht Met:			10/12/95 YES		
Analysis Date/Ht Met:			10/13/95 YES		
Dilution Factor:	AE3		1.0		

Analyte (UG/WIPE)	PQL	Result	Result	Result		
METHOD 8080 - POLYCHLORINATED BIPHENYLS						
Aroclor 1016	40	NA	NA	0.20 U		
Aroclor 1221	80	NA	NA	0.20 U		
Aroclor 1232	40	NA	NA	0.20 U		
Aroclor 1242	40	NA	NA	0.20 U		
Aroclor 1248	40	NA	NA	0.20 U		
Aroclor 1254	40	NA	NA	0.20 U		
Aroclor 1260	40	NA	NA	0.91		
SURROGATES						
Tetrachloro-m-xylene	27-132	NA	NA	87		
Decachlorobiphenyl	58-150	NA	NA	102		

* Indicates Result is Outside QC Limits
NA = Not Applicable

TRANSMITTAL INFORMATION SHEET

DATE: 10/18/95

The following pages are for:

NAME: Tony Misercola

FIRM: Woodward Clyde

ADDRESS: _____

_____

_____

FAX NUMBER: 691-4560

FROM: Candace Fox

SPECIAL INSTRUCTIONS: First Round No Test Kits

RCRA Analysis only

_____

_____

_____

Total number of pages 3 (including information sheet).

If you have any problems during the transmission of these documents, please call (716) 691-2600, extension_____.

RECRA ENVIRONMENTAL, INC.
10 Hazelwood Drive
Amherst, New York 14228

Telephone: (716) 691-2600

Fax No: (716) 691-3011

Client Sample ID:		DDNS1	DDSS1			
Job Number & Lab Sample ID:		A95-5537 A5553701	A95-5537 A5553702			
Sample Date:		10/17/95	10/17/95			
TCLP Date/Ht Met:		- -	- -			
Extraction Date/Ht Met:		10/17/95 15:00 YES	10/17/95 15:00 YES			
Analysis Date/Ht Met:		10/18/95 YES	10/18/95 YES			
Dilution Factor:		1.0	1.0			
Analyte (NG/KG)	PQL	Result	Result			
METHOD 8080 - POLYCHLORINATED BIPHENYLS						
Aroclor 1016	1.0	1.0 U	1.0 U			
Aroclor 1221	1.0	1.0 U	1.0 U			
Aroclor 1232	1.0	1.0 U	1.0 U			
Aroclor 1242	1.0	1.0 U	1.0 U			
Aroclor 1248	1.0	1.0 U	1.0 U			
Aroclor 1254	1.0	1.0 U	1.0 U			
Aroclor 1260	1.0	6.2	2.4			
SURROGATES						
Tetrachloro-m-xylene	27-132	106	103			
Decachlorobiphenyl	58-150	112	112			

Client Sample ID:		AAES1	AANS1	AANS4	AASS1	AAWS1
Job Number & Lab Sample ID:		A95-5537 A5553707	A95-5537 A5553704	A95-5537 A5553705	A95-5537 A5553703	A95-5537 A5553706
Sample Date:		10/17/95	10/17/95	10/17/95	10/17/95	10/17/95
TCLP Date/HT Met:		- -	- -	- -	- -	- -
Extraction Date/HT Met:		10/17/95 15:00 YES	10/17/95 15:00 YES	10/17/95 15:00 YES	10/17/95 15:00 YES	10/17/95 15:00 YES
Analysis Date/Ht Met:		10/18/95 YES	10/18/95 YES	10/18/95 YES	10/18/95 YES	10/18/95 YES
Dilution Factor:		1.0	1.0	1.0	10.0	1.0
Analyte (MG/KG)	PQL	Result	Result	Result	Result	Result
METHOD 8080 - POLYCHLORINATED BIPHENYLS						
Aroclor 1016	1.0	1.0 U	1.0 U	1.0 U	1.1 U	1.0 U
Aroclor 1221	1.0	1.0 U	1.0 U	1.0 U	1.1 U	1.0 U
Aroclor 1232	1.0	1.0 U	1.0 U	1.0 U	1.1 U	1.0 U
Aroclor 1242	1.0	1.0 U	1.0 U	1.0 U	1.1 U	1.0 U
Aroclor 1248	1.0	1.0 U	1.0 U	1.0 U	1.1 U	1.0 U
Aroclor 1254	1.0	1.0 U	1.0 U	1.0 U	1.1 U	0.29 J
Aroclor 1260	1.0	0.15 J	1.3	2.0	9.0	1.0 U
SURROGATES						
Tetrachloro-m-xylene	27-132	106	111	114	0 D	104
Decachlorobiphenyl	58-150	116	114	114	0 D	110

* Indicates Result is Outside QC Limits
NA = Not Applicable

TRANSMITTAL INFORMATION SHEET

DATE: 10/19/95

The following pages are for:

NAME: Tony Misercola

FIRM: Woodward Clyde

ADDRESS: _____

_____

_____

FAX NUMBER: 691-4560

FROM: Candace Fox

SPECIAL INSTRUCTIONS: 2ND Ring & Samples at A and D with ext Test kits (COC from 10/17) Surface Samples

_____

_____

_____

Total number of pages 2 (including information sheet).

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RECRA ENVIRONMENTAL, INC.
10 Hazelwood Drive
Amherst, New York 14228

Telephone: (716) 691-2600

Fax No: (716) 691-3011

Client Sample ID:	AANS2	AASS2	DDNS2	DDSS2	
Job Number & Lab Sample ID:	A95-5578 A5557801	A95-5578 A5557805	A95-5578 A5557808	A95-5578 A5557806	
Sample Date:	10/17/95	10/17/95	10/17/95	10/17/95	
TCLP Date/HT Met:	- -	- -	- -	- -	
Extraction Date/HT Met:	10/18/95 23:30 YES	10/18/95 23:30 YES	10/18/95 23:30 YES	10/18/95 23:30 YES	
Analysis Date/Ht Met:	10/18/95 19:27 YES	10/18/95 19:42 YES	10/18/95 20:12 YES	10/18/95 19:57 YES	
Dilution Factor:	1.0	1.0	1.0	1.0	

Analyte (MG/KG)	PQL	Result	Result	Result	Result	
METHOD 8080 - POLYCHLORINATED BIPHENYLS						
Aroclor 1016	1.0	1.0 U	1.0 U	1.0 U	1.0 U	
Aroclor 1221	1.0	1.0 U	1.0 U	1.0 U	1.0 U	
Aroclor 1232	1.0	1.0 U	1.0 U	1.0 U	1.0 U	
Aroclor 1242	1.0	1.0 U	1.0 U	1.0 U	1.0 U	
Aroclor 1248	1.0	1.0 U	1.0 U	1.0 U	1.0 U	
Aroclor 1254	1.0	1.0 U	1.0 U	1.0 U	1.0 U	
Aroclor 1260	1.0	0.92 J	5.9	9.7	4.2	
SURROGATES						
Tetrachloro-m-xylene	27-132	118	116	102	112	
Decachlorobiphenyl	58-150	124	126	108	120	

* Indicates Result is Outside QC Limits
NA = Not Applicable

TRANSMITTAL INFORMATION SHEET

Telephone: (716) 691-2600
Fax No. : (716) 691-7991
: (716) 691-3011

Approved By ____________
Signature
Transmitted By *[signature]*
Signature
Recra Report I.D.#: *A95-5588*

DATE: *10/19/95*

Parameter(s) Reported: *PCB's*

The following pages are for:

NAME: *Tony Misercola*

FIRM: *Woodward-Clyde*

ADDRESS: ____________

Reporting Complete? ___

FAX NUMBER: *691-4560*

FROM: *Candace Fox / [initials]*

SPECIAL INSTRUCTIONS: *FMC results 3RP ~~Ring~~ ~~Road A~~*
~~[illegible]~~ samples ~~(no test kit)~~
subsurface results Recra A north, and A east (No test kits)

For questions regarding these data, please contact Mr. Curt Senf

Total number of pages *5* (including information sheet).

If you have any problems during the transmission of these documents, please call (716) 691-2600, extension 3022 - Customer Service.

It is understood and agreed by the customer that all data and information stated in this report may be preliminary, may not have been reviewed for completeness or accuracy, and could be subject to change based upon a final review. Recra Environmental, Inc. makes no expressed or implied warranties of any kind, including, but not limited to merchantability and fitness for a particular purpose, and customer agrees that Recra Environmental, Inc. shall not be liable for any of customer's losses or damages caused by use of the data.

RECRA
ENVIRONMENTAL
INC.

5-72

RECRA ENVIRONMENTAL, INC.

CHAIN OF CUSTODY RECORD

PROJECT NO	SITE NAME
93C2339-6	FMC-TONAWANDA

SAMPLERS (SIGNATURE)
Frank Garbe - Woodward-Clyde

STATION NO	DATE	TIME	COMP	GRAB	STATION LOCATION	NO OF CONTAINERS	PCB's to be Reported to ppm (dry weight)	REMARKS
AN2	10/18/95	1650	✓		A pit N wall 2nd cut	1		> PCB's by 8080 Detection limits < 10 ppm Dry Weight basis
AE4	10/18/95	1600	✓		A pit E wall 4th cut	1		
								+ 24 Hr TAT Rush.
								(call Anthony Miserola - Woodward-Clyde 691-1777 for Questions answered.)

RELINQUISHED BY (SIGNATURE)	DATE / TIME	RECEIVED BY (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	DATE / TIME	RECEIVED BY (SIGNATURE)
Frank Garbe	10/18/95 17:30				
RELINQUISHED BY (SIGNATURE)	DATE / TIME	RECEIVED BY (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	DATE / TIME	RECEIVED BY (SIGNATURE)
RELINQUISHED BY (SIGNATURE)	DATE / TIME	RECEIVED FOR LABORATORY BY (SIGNATURE)	DATE / TIME	REMARKS	

Distribution: Original accompanies shipment copy to coordinator field files

METHOD 8080 - POLYCHLORINATED BIPHENYLS

Laboratory: Recra Environmental, Inc. :RECNY
Lab Job No: A95-5588
Lab Samp ID:A5558801
Client ID: AN2

Matrix: Soil Low
Dilution Factor: 1
Sample Date: 10/18/95
Analysis Date: 10/19/95
Extraction Date: 10/19/95
% Dry Weight: 70.68

Parameter	Units = MG/KG	Result	Q
Aroclor 1016		1.0	U
Aroclor 1221		1.0	U
Aroclor 1232		1.0	U
Aroclor 1242		1.0	U
Aroclor 1248		1.0	U
Aroclor 1254		1.0	U
Aroclor 1260		0.061	J

METHOD 8080 - POLYCHLORINATED BIPHENYLS

Laboratory: Recra Environmental, Inc. :RECNY
Lab Job No: A95-5588
Lab Samp ID:A5558802
Client ID: AE4

Matrix: Soil Low
Dilution Factor: 1
Sample Date: 10/18/95
Analysis Date: 10/19/95
Extraction Date: 10/19/95
% Dry Weight: 78.17

Parameter	Units = MG/KG	Result	Q
Aroclor 1016		1.0	U
Aroclor 1221		1.0	U
Aroclor 1232		1.0	U
Aroclor 1242		1.0	U
Aroclor 1248		1.0	U
Aroclor 1254		1.0	U
Aroclor 1260		0.13	J

METHOD 8080 - POLYCHLORINATED BIPHENYLS

Laboratory: Recra Environmental, Inc. :RECNY
Lab Job No: A95-5588
Lab Samp ID:A5B0706301
Client ID: Method Blank

Matrix: Soil Low
Dilution Factor: 1
Sample Date: -
Analysis Date: 10/19/95
Extraction Date: 10/19/95
% Dry Weight: 100.00

Parameter	Units = MG/KG	Result	Q
Aroclor 1016		1.0	U
Aroclor 1221		1.0	U
Aroclor 1232		1.0	U
Aroclor 1242		1.0	U
Aroclor 1248		1.0	U
Aroclor 1254		1.0	U
Aroclor 1260		1.0	U

TRANSMITTAL INFORMATION SHEET

DATE: 10/20

The following pages are for:

NAME: Tony Misercola

FIRM: _____

ADDRESS: _____

_____

_____

FAX NUMBER: 691-4560

FROM: Candace Fox

SPECIAL INSTRUCTIONS: Subsurface DN4 — clean (NO test kit)

_____

_____

_____

Total number of pages ___(including information sheet).

If you have any problems during the transmission of these documents, please call (716) 691-2600, extension_____.

RECRA ENVIRONMENTAL, INC.
10 Hazelwood Drive
Amherst, New York 14228

Telephone: (716) 691-2600

Fax No: (716) 691-3011

Client Sample ID:	DN4					
Job Number & Lab Sample ID:	A95-5590 A5559001					
Sample Date:	10/19/95					
TCLP Date/HT Met:	- -					
Extraction Date/HT Met:	10/19/95 23:30 YES					
Analysis Date/Ht Met:	10/20/95 YES					
Dilution Factor:	1.0					
Analyte (MG/KG)	PQL	Result				
METHOD 8080 - POLYCHLORINATED BIPHENYLS						
Aroclor 1016	1.0	1.0	U			
Aroclor 1221	1.0	1.0	U			
Aroclor 1232	1.0	1.0	U			
Aroclor 1242	1.0	1.0	U			
Aroclor 1248	1.0	1.0	U			
Aroclor 1254	1.0	1.0	U			
Aroclor 1260	1.0	1.0	U			
SURROGATES						
Tetrachloro-m-xylene	27-132	74				
Decachlorobiphenyl	58-150	70				

PRELIMINARY

* Indicates Result is Outside QC Limits
NA = Not Applicable

FAX

Date 10/4/95

Number of pages including cover sheet 2

TO: John Hyden
NYSDEC

Phone
Fax Phone 851-7226

FROM: RICH WISE
ENVIRONMENTAL MGR.
FMC CORPORATION
PO BOX 845
BUFFALO, NY 14240

Phone (716) 879-0405
Fax Phone (716) 879-0433

CC:

REMARKS: ☐ Urgent ☒ For your review ☐ Reply ASAP ☐ Please Comment

John,
Info from IWSS on clean clay for backfill at PSA site is attached. Please call if you need more info.

Rich Wise

October 4, 1995

I·W·S·S

Rich Wise
FMC

Dear Rich:

The on site clay was brought from an excavation of a pond at 2625 Bedell Road on Grand Island. It was also brought from a stockpile at IWSS 201 Ganson street yard. Clay was excavated from virgin ground of clean property.

If you have any questions, please do not hesitate to call me.

Sincerely,
Bhavesh Kandar

T.E.M.

INTEGRATED WASTE SPECIAL SERVICES, INC.
201 Ganson Street • Buffalo, NY 14203 • (716) 852-2345 • FAX (716) 852-1757
Offices In: Rochester, New York, Chicago, Detroit, Philadelphia, Binghamton, Albany, Pittsburgh, Houston


X = 2625
BEDELL RD
GRAND ISLAND
NIAG
Youngstown
Lewiston
Porter Center
Ransomville
Model City
Sanborn
Colonial Village
Pekin
Cambria
Streeters Cors.
N. Ridge
Molyneux Cors.
Hickory Cors.
Lockport Jctn.
LOCKPORT
South Lockport
Comstock Cors.
Mapleton
Pendleton Ctr.
Beach Ridge
Pendleton
Wendelville
Hoffman
Audubon New Community
N. TONAWANDA
Getzville
Sawyer
Wurlitzer Park Village
NIAGARA FALLS
Sandy Beach
Edgewater
Whitehaven
Tantasy Island
Grandyle Village
GRAND ISLAND
TONAWANDA
Kenmore
Ellwood Park
Kenilworth
Eggertsville
Snyder
Williamsville
Amherst
North Forest Acres
Woodstream Farms
Depew
FORT ERIE
E. Wilson
Warrens Cors.
Wrights Corners
Blairville
Swormsville
E. Amherst
CHEEKTOWAGA

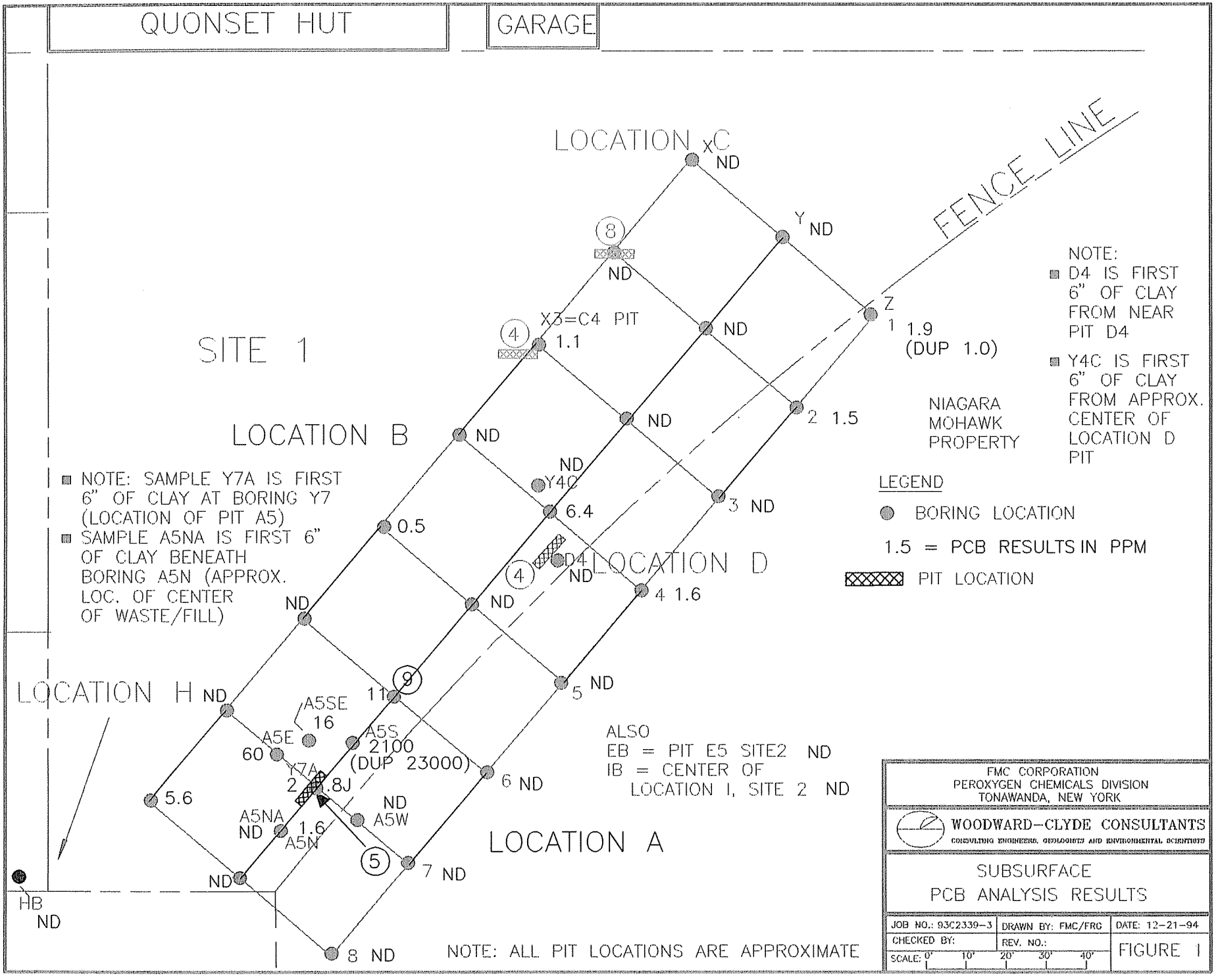
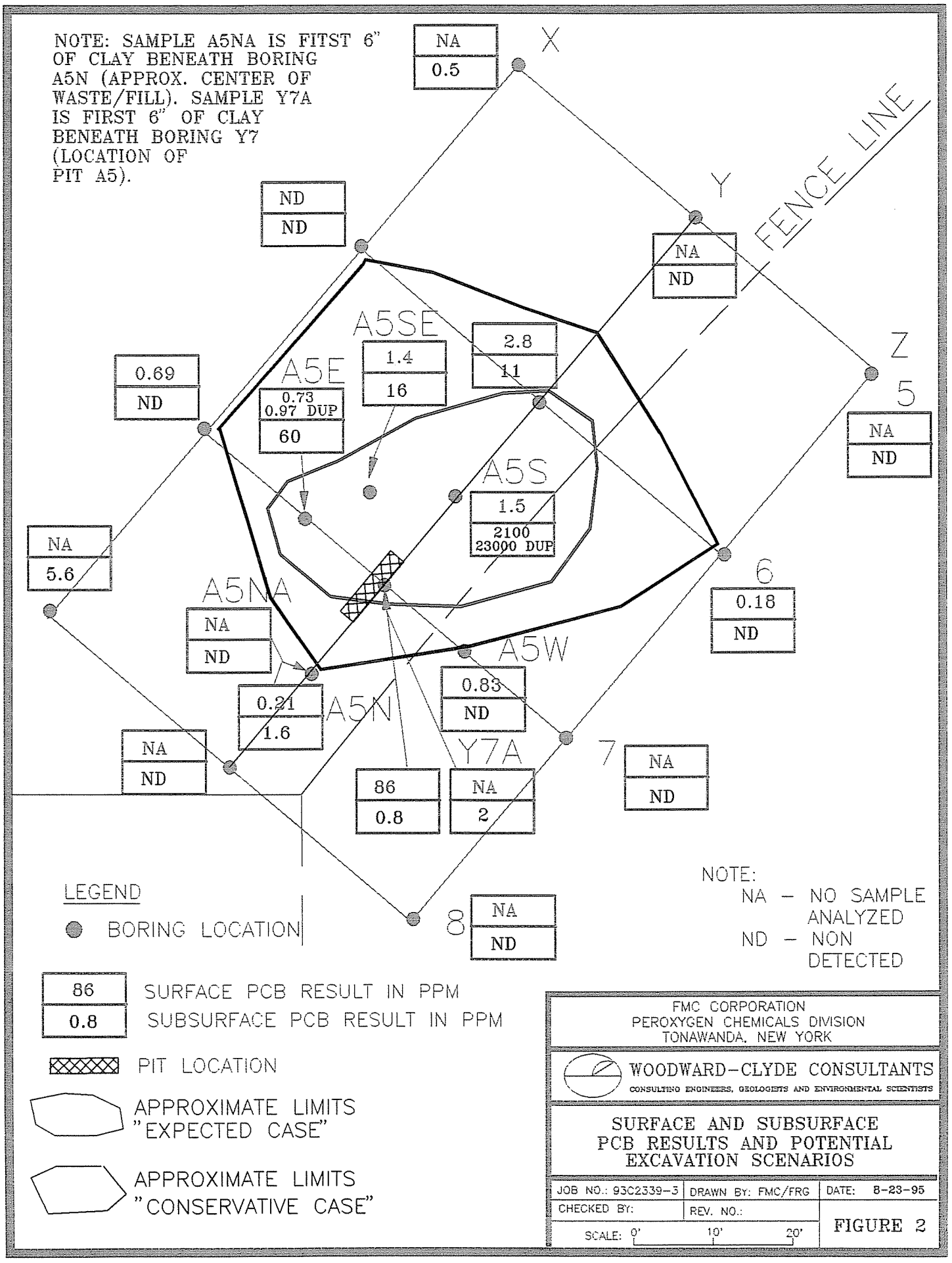

QUONSET HUT
GARAGE
FENCE LINE
LOCATION xC
ND
Y ND
8
ND
Z
1 1.9
(DUP 1.0)
X3=C4 PIT
4
1.1
SITE 1
ND
ND
2 1.5
LOCATION B
ND
ND
Y4C
6.4
3 ND
0.5
D4
4
ND
LOCATION D
4 1.6
ND
ND
5 ND
LOCATION H ND
9
11
A5SE
16
A5E
60
A5S
2100
(DUP 23000)
Y7A
2
.8J
6 ND
5.6
ND
A5W
A5NA
ND
1.6
A5N
5
LOCATION A
7 ND
ND
HB
ND
8 ND
NOTE: ALL PIT LOCATIONS ARE APPROXIMATE
NOTE:
D4 IS FIRST 6" OF CLAY FROM NEAR PIT D4
Y4C IS FIRST 6" OF CLAY FROM APPROX. CENTER OF LOCATION D PIT
NIAGARA MOHAWK PROPERTY
NOTE: SAMPLE Y7A IS FIRST 6" OF CLAY AT BORING Y7 (LOCATION OF PIT A5)
SAMPLE A5NA IS FIRST 6" OF CLAY BENEATH BORING A5N (APPROX. LOC. OF CENTER OF WASTE/FILL)
LEGEND
BORING LOCATION
1.5 = PCB RESULTS IN PPM
PIT LOCATION
ALSO
EB = PIT E5 SITE2 ND
IB = CENTER OF LOCATION I, SITE 2 ND
FMC CORPORATION
PEROXYGEN CHEMICALS DIVISION
TONAWANDA, NEW YORK
WOODWARD-CLYDE CONSULTANTS
CONSULTING ENGINEERS, GEOLOGISTS AND ENVIRONMENTAL SCIENTISTS
SUBSURFACE
PCB ANALYSIS RESULTS
JOB NO.: 93C2339-3
DRAWN BY: FMC/FRG
DATE: 12-21-94
CHECKED BY:
REV. NO.:
SCALE: 0' 10' 20' 30' 40'
FIGURE 1

TABLE 1
FMC TONAWANDA BORINGS
DEPTH TO SAMPLES AND NATIVE CLAY

SAMPLE DESIGNATION/ LOCATION	DEPTH TO SAMPLE (FT. BGS)	SAMPLE TYPE	DEPTH TO CLAY (FT. BGS)	PCB RESULTS (in ppm)
X1	1 to 2	Flyash/sand	2	ND
Y1	1 to 2	Flyash/clay/sand	3	ND
Z1	2 to 3	Flyash/brick frags.	3 1/2	1.9 (dup 1 J)
X2	1 to 2	Flyash/clay	2 1/2	ND
Y2	3 to 4	Clay/flyash	4	ND
Z2	3 to 4	Fly ash	5	1.5
X3 (C4 pit)	4 to 5	Clay/brick frags.	5	1.1 J
Y3	7 to 8	Clay/silt	9	ND
Z3	2 1/2 to 4	Flyash/brick frags.	4 1/2	ND
X4	1 to 2	Clay/silt	3	ND
Y4	3 to 4	Clay/flyash	5	6.4
Z4	3 to 4	Flyash	4 1/2	1.6
X5	4 to 5	Clay/silt	5	0.5 J
Y5	4 to 5	Clay/salts	5	ND
Z5	3 to 4	Flyash	5	ND
X6	2 1/2 to 3 1/2	Clay/sand (flyash ?)	4 1/2	ND
Y6	3 to 4	Sand/clay	5	11
Z6	2 1/2 to 3 1/2	Flyash/brick frags.	4 1/2	ND
X7	1 to 2	Sand/silt (flyash ?)	6	ND
Y7	3 to 4	Clay	5	0.8 J
Z7	2 to 3 1/2	Flyash/brick frags.	4 1/2	ND
X8	1 to 2	Silt/clay	3	5.6
Y8	2 1/2 to 3 1/2	Clay/brick frags.	6 TO 8	ND
Z8	2 1/2 to 3 1/2	Flyash/clay	3 1/2	ND
A5W	2 to 3	Clay	3	ND
A5S	3 to 4	Flyash/silt (odor)	5	2100 (dup 23000)
A5N	1 to 2	Sand (salts?)	7	1.6
A5E	2 to 3	Salts/silt	5	60
A5SE	3 to 4	Clay/sand	5	16
HB (location H)	2 1/2 to 3 1/2	Clay/brick frags.	4	ND
EB (location E, pit 5)	5 to 6 1/2	Clay/gravel/glass	7	ND
IB (location I)	2 1/2 to 3 1/2	Clay/flyash	4	ND
TOP OF NATIVE CLAY SAMPLES				
D4	8	Native clay	8	ND
Y4C	5 1/2	Native clay	5 1/2	ND
Y7A	5	Native clay	5	2
A5NA	7	Native clay	7	ND

NOTE: ND - Non detected (See attached laboratory summary sheets for specific quantitation limits.)
J - Estimated result, detected below quanitation limit.



FMC CORPORATION
PEROXYGEN CHEMICALS DIVISION
TONAWANDA, NEW YORK

WOODWARD-CLYDE CONSULTANTS
CONSULTING ENGINEERS, GEOLOGISTS AND ENVIRONMENTAL SCIENTISTS

SURFACE AND SUBSURFACE PCB RESULTS AND POTENTIAL EXCAVATION SCENARIOS

JOB NO.: 93C2339-3	DRAWN BY: FMC/FRG	DATE: 8-23-95
CHECKED BY:	REV. NO.:	
SCALE: 0' 10' 20'		FIGURE 2

FAX

Date 9-22-95

Number of pages including cover sheet 7

TO: Mr John Hyder
NYSDEC

Phone
Fax Phone 851-7226

FROM: RICH WISE
ENVIRONMENTAL MGR.
FMC CORPORATION
PO BOX 845
BUFFALO, NY 14240

Phone (716) 879-0405
Fax Phone (716) 879-0433

CC:

REMARKS: ☐ Urgent ☒ For your review ☒ Reply ASAP ☐ Please Comment

Project Operations Plan attached.

Woodward-Clyde Consultants, Inc.
Engineering & sciences applied to the earth & its environment

September 22, 1995
93C2339-6

Mr. John Hyden
Environmental Engineer II
NYSDEC
270 Michigan Avenue
Buffalo, New York 14203-2999

Subject: Interim Remedial Measures - Project Operations Plan
Preliminary Site Assessment (PSA)
FMC Corporation, Tonawanda, New York
DEC Site 915025

Dear Mr. Hyden:

On Thursday, August 24, 1995, representatives of FMC (Richard Wise, Patricia Nevrincean) and Woodward-Clyde Consultants (Anthony Misercola, Frank Garbe) met with you at FMC's Tonawanda facility. At this meeting, we discussed and agreed to interim remedial measures to be conducted at locations A and D on Site-1 at the FMC Tonawanda Plant. Site-1 and locations A and D were previously identified in WCC's PSA report dated January 1995. The remedial measures agreed upon include excavation of surface and subsurface soils at locations A and D having PCB concentrations above 1 ppm and 10 ppm in surface and subsurface soils, respectively.

Based upon further discussions and your letter dated August 28, we understand that NYSDEC has requested that a brief Project Operations Plan be submitted to document the remedial measures to be implemented for PCB contaminated soil at locations A and D on Site-1 at the FMC Tonawanda Plant. This letter will therefore serve as the Project Operations Plan for the interim remedial measures to be conducted by FMC. This plan addresses:

- areas to be excavated
- post-excavation confirmatory testing
- staging and disposal of excavated soil
- backfill material

Previous Data Acquisition

As part of the PSA investigation conducted in September 1994, test pits were excavated at suspected waste disposal areas. Waste samples were collected from locations A and D on Site-1, the only locations where evidence of disposal of plant waste was encountered. PCBs

Amherst Office
15 Hazelwood Drive, Suite 110 • Amherst, New York 14228-2229
716-691-1777 • Fax 716-691-4560

were detected in both waste samples. Aroclors-1254 and 1260 were reported in replicate samples from test pit D-4, at total PCB concentrations of 27 and 14 ppm. Aroclor-1260 was reported in the waste sample from test pit A-5 at a concentrations of 16,000 ppm.

In July, 1995, following approval from NYSDEC, an additional investigation was performed to characterize the vertical and horizontal extent of PCBs at locations A and D on Site-1. During this investigation, borings were advanced in a grid pattern covering the area surrounding waste disposal locations A and D. At each subsurface location where PCB concentrations exceeded 10 ppm, a corresponding surficial soil sample was analyzed to identify the extent of surficial soil PCB concentrations above 1 ppm.

Figure 1 presents subsurface PCB concentrations for the grid established around waste disposal locations A and D during the additional investigation. Figure 2 presents the subsurface and surface soil PCB concentrations on the grid at location A and the expected area of excavation at location A based on a 10 ppm subsurface and 1 ppm surface soil cleanup criteria ("action levels"). Surface soil samples were not analyzed in the vicinity of location D since subsurface samples from the additional investigation did not yield PCB concentrations at or above the 10 ppm "action level". The area of expected excavation at location D, based on PCB concentrations in excess of 10 ppm from replicate waste samples at test pit D-4 (during the initial 1994 investigation), is not shown on Figure 2. Figures 1 and 2 were provided to you at the August 24th meeting.

Remedial Measures

- Areas To Be Remediated

  Based upon analytical results obtained from the initial PSA Investigation and Additional Investigation, it appears that two small areas on Site-1 in the vicinity of test pits A-5 and D-4 contain PCB concentrations above NYSDEC's subsurface action level of 10 ppm. No significant surficial contamination is present in surficial materials beyond the area of subsurface contamination near test pit A-5. Surficial soils adjacent to test pit D-4 were not investigated in accordance with the approved Additional Investigation since subsurface grid samples in the vicinity of this area were non-detected for PCBs or yielded PCB concentrations below 10 ppm.

  Analytical results from the investigations have also shown that PCBs have not penetrated significantly into the underlying clay layer. As such, in areas where subsurface PCB concentrations or surface soil PCB concentrations exceeded action levels, soils will be excavated to the top of the native clay, which varies along Site-1 from 2 to 8 feet below

ground surface. Excavations in test pit A-5 area will be initially limited to the immediate vicinity of samples exceeding the 10 -ppm criterion (Y6, A5SE, A5E, test pit A-5 and A5S). The initial excavation in the D-4 area will comprise the D-4 test pit.

- Post Excavation Testing

  In each of areas A and D, soils will be excavated until the margins of the excavation meet the applicable action level, based upon post-excavation sampling, or samples from previous boring locations. Approximate limits of excavation will be determined in the field based upon the results of field tests for PCBs using the immunoassay method. Excavation will proceed outward in approximate 5 foot increments from locations exceeding the action levels until the field test indicate that action levels have been met, or until the excavation reaches a location known to meet the action level based upon previous testing (see Figures 1 and 2). Confirmatory samples from the final excavations will be submitted for PCB analyses to an off-site commercial laboratory. Confirmatory composite samples will be collected from each of the four sidewalls of the excavation (surface and subsurface soils) and from the base of each excavation. Three subsamples will be included in each composite sample. These samples will be analyzed for PCBs in accordance with SW-846 Test Method 8080. Pending receipt of confirmatory analyses and backfilling, the excavations will be provided with a temporary cover consisting of polyethylene sheeting. Barrier tape will be placed around the excavations until backfill is completed.

- Staging and Disposal of Excavated Materials

  Excavated soils will be placed into 20 cubic yard rolloffs, covered with plastic tarps, and staged on-site pending off-site disposal. Waste profiles have been prepared by FMC, and this soil has been accepted for disposal at Chemical Waste Management's Model City, New York facility. Manifest records will be maintained for all material removed for off-site disposal.

- Backfill

  Following receipt of the confirmatory sample results and assuming that PCB results are less than NYSDEC action levels (10 ppm subsurface, 1 ppm surface), the excavations will be backfilled with soil excavated by FMC from the vicinity of ditches surrounding the Tonawanda Plant. This soil was excavated because low pH runoff from the plant warehouse fire on August 18, 1995 entered these ditches. Low pH surface soil from this excavation was containerized for off-site disposal. Excavated soil with pH ranging from

Woodward-Clyde Consultants, Inc.

7.93 to 9.7 was retained on-site for use in backfilling the excavations at locations A and D. In a September 1, 1995 letter from R. Wise of FMC to M. Hans of NYSDEC, FMC provided additional information concerning this soil, and requested permission to use it as backfill in the on-site excavations. The acceptability of this soil as backfill was confirmed in a letter from M. Hans to R. Wise dated September 15, 1995.

NYSDEC will be informed of the schedule of activities and will be given the opportunity to inspect excavations and field testing. The current schedule of activities calls for field work to be conducted during the weeks of September 25 or October 2, assuming your prompt approval of this work plan. We will inform you verbally of the final work schedule after receiving your approval and scheduling work with subcontractors.

FMC recognizes that final approval of the remediation is contingent upon NYSDEC's receipt of a report fully documenting activities performed, and validated results of confirmatory post-excavation sampling.

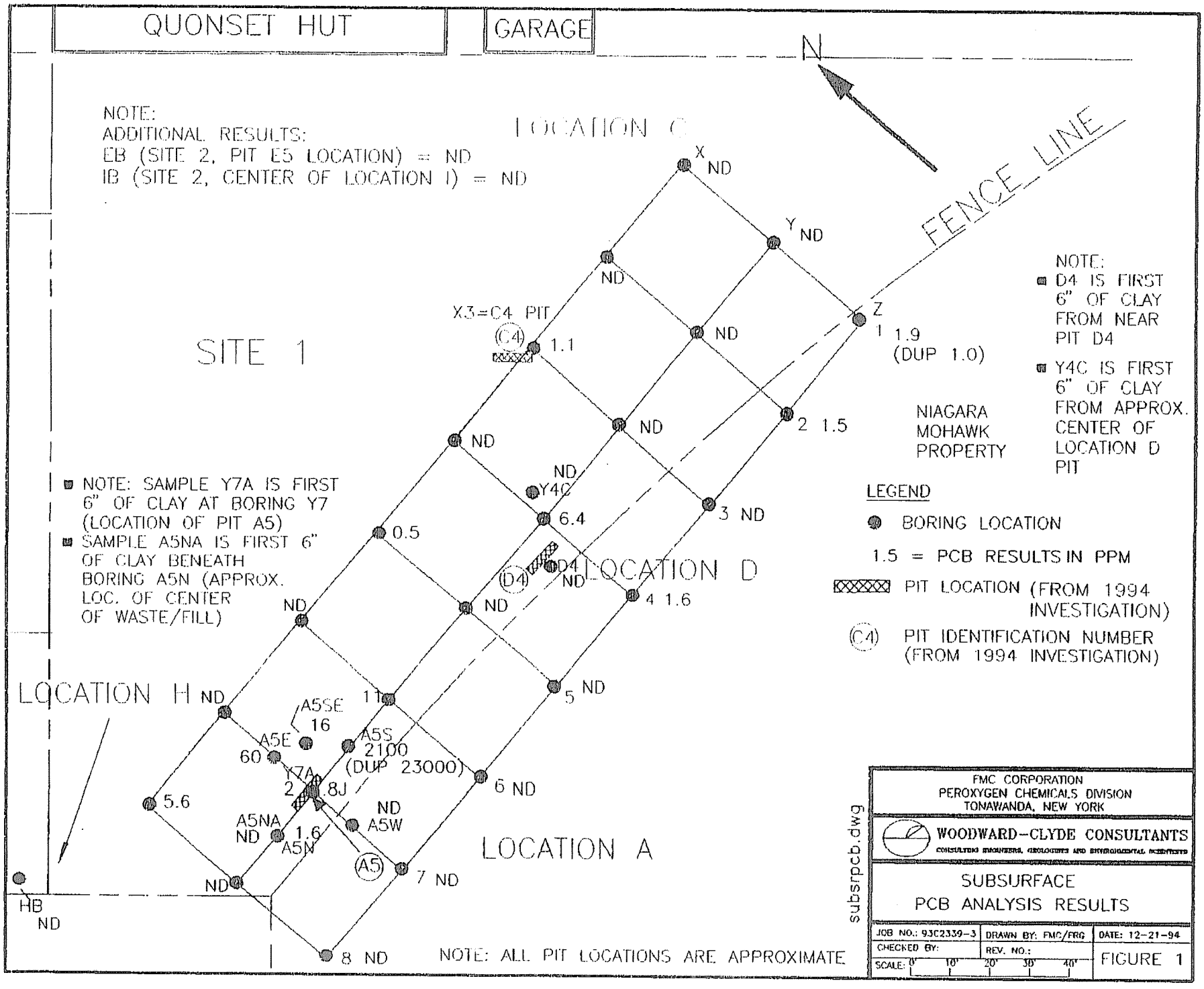
We appreciate your rapid response and look forward to your expeditious approval of this plan for interim remediation.

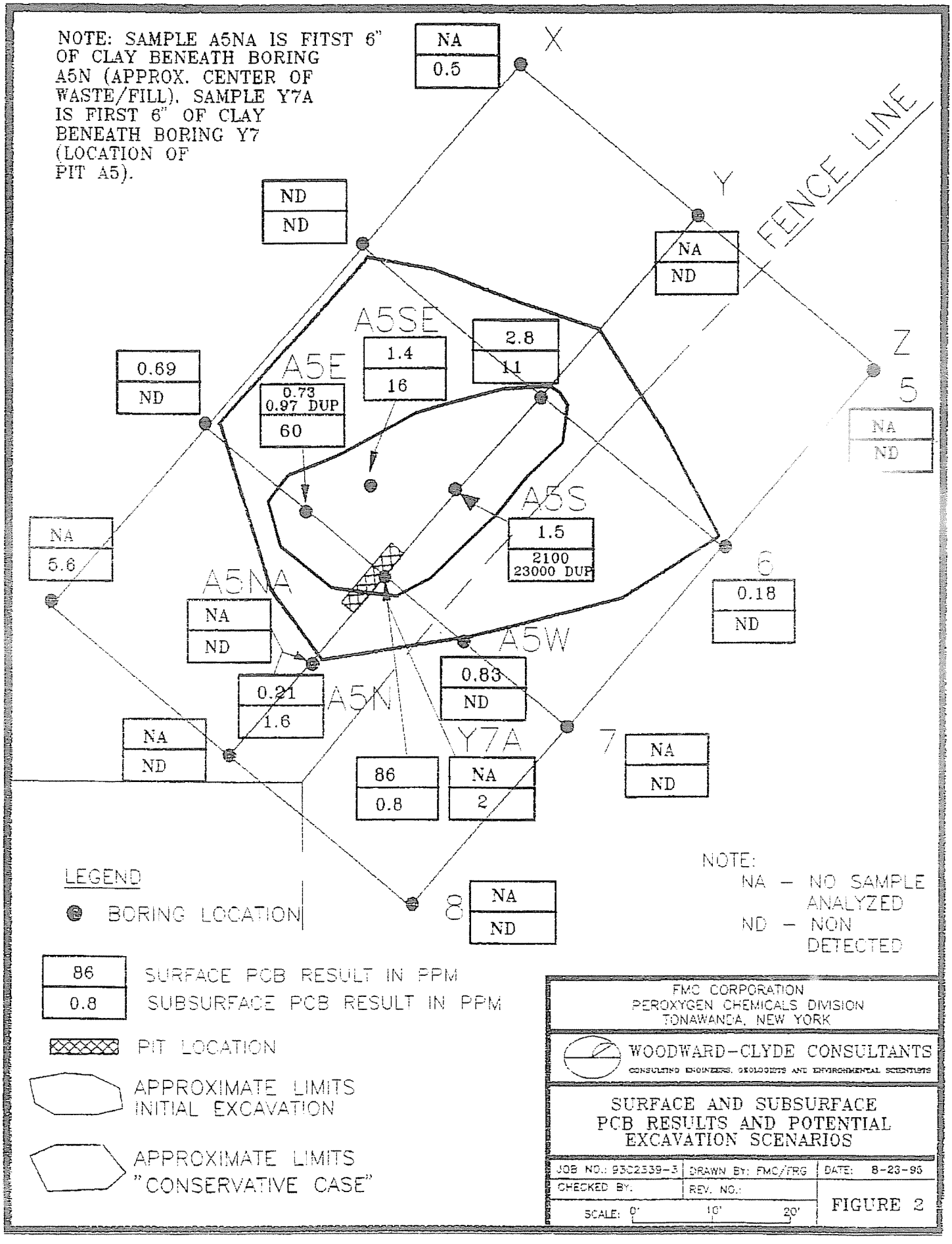
Sincerely,

Anthony J. Misercola
Assistant Project Scientist

James F. Roetzer / JFR

James F. Roetzer, Ph.D.
Vice President




NOTE: SAMPLE A5NA IS FITST 6" OF CLAY BENEATH BORING A5N (APPROX. CENTER OF WASTE/FILL). SAMPLE Y7A IS FIRST 6" OF CLAY BENEATH BORING Y7 (LOCATION OF PIT A5).
X
Y
Z
5
6
7
8
FENCE LINE
NA
0.5
ND
ND
NA
ND
A5SE
1.4
16
2.8
11
0.69
ND
A5E
0.73
0.97 DUP
60
NA
ND
A5S
1.5
2100
23000 DUP
NA
5.6
A5NA
NA
ND
0.18
ND
A5W
0.83
ND
0.21
1.6
A5N
NA
ND
Y7A
86
0.8
NA
2
NA
ND
NA
ND
LEGEND
BORING LOCATION
NOTE:
NA – NO SAMPLE ANALYZED
ND – NON DETECTED
86
SURFACE PCB RESULT IN PPM
0.8
SUBSURFACE PCB RESULT IN PPM
PIT LOCATION
APPROXIMATE LIMITS INITIAL EXCAVATION
APPROXIMATE LIMITS "CONSERVATIVE CASE"
FMC CORPORATION
PEROXYGEN CHEMICALS DIVISION
TONAWANDA, NEW YORK
WOODWARD-CLYDE CONSULTANTS
CONSULTING ENGINEERS, GEOLOGISTS AND ENVIRONMENTAL SCIENTISTS
SURFACE AND SUBSURFACE PCB RESULTS AND POTENTIAL EXCAVATION SCENARIOS
JOB NO.: 93C2339-3
DRAWN BY: FMC/FRG
DATE: 8-23-95
CHECKED BY:
REV. NO.:
SCALE: 0' 10' 20'
FIGURE 2

FMC Corporation

Peroxygen Chemicals Division
Box 845
Buffalo New York 14240
716 879 0400

JH

FMC

September 22, 1995

Mr. John W. Hyden, PhD, PE
New York State Division of Environmental Conservation
Region 9
270 Michigan Avenue
Buffalo, New York 14203-2999

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Re: FMC Corporation
Tonawanda Peroxygen Chemicals Facility
Interim Remedial Measures- Project Operations Plan
DEC Site No. 915025

Dear Mr. Hyden:

The attached Project Operations Plan from Woodward-Clyde Consultants is submitted as requested in your August 28 letter to me. Your comments on this Plan will be appreciated, so that we can schedule removal of the PCB material.

.

Please call me at 879-0405 if you have any questions.

Very truly yours,

Richard K. Wise
Environmental Manager

Attachment

cc: Robert M. Crossen - Spill Response Unit
J. Robert Smythe - Division of Water
Dennis Weiss- Division of Solid Waste

New York Division of of Environmental Conservation
Region 9
270 Michigan Avenue
Buffalo, New York 14203-2999

Woodward-Clyde Consultants, Inc.

Engineering & sciences applied to the earth & its environment

September 22, 1995
93C2339-6

Mr. John Hyden
Environmental Engineer II
NYSDEC
270 Michigan Avenue
Buffalo, New York 14203-2999

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DEC Site 915025

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ground surface. Excavations in test pit A-5 area will be initially limited to the immediate vicinity of samples exceeding the 10 -ppm criterion (Y6, A5SE, A5E, test pit A-5 and A5S). The initial excavation in the D-4 area will comprise the D-4 test pit.

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- Backfill

  Following receipt of the confirmatory sample results and assuming that PCB results are less than NYSDEC action levels (10 ppm subsurface, 1 ppm surface), the excavations will be backfilled with soil excavated by FMC from the vicinity of ditches surrounding the Tonawanda Plant. This soil was excavated because low pH runoff from the plant warehouse fire on August 18, 1995 entered these ditches. Low pH surface soil from this excavation was containerized for off-site disposal. Excavated soil with pH ranging from

7.93 to 9.7 was retained on-site for use in backfilling the excavations at locations A and D. In a September 1, 1995 letter from R. Wise of FMC to M. Hans of NYSDEC, FMC provided additional information concerning this soil, and requested permission to use it as backfill in the on-site excavations. The acceptability of this soil as backfill was confirmed in a letter from M. Hans to R. Wise dated September 15, 1995.

NYSDEC will be informed of the schedule of activities and will be given the opportunity to inspect excavations and field testing. The current schedule of activities calls for field work to be conducted during the weeks of September 25 or October 2, assuming your prompt approval of this work plan. We will inform you verbally of the final work schedule after receiving your approval and scheduling work with subcontractors.

Closure Rpt. or Final Interim Rpt. on PCB soil removal project

FMC recognizes that final approval of the remediation is contingent upon NYSDEC's receipt of a report fully documenting activities performed, and validated results of confirmatory post-excavation sampling.

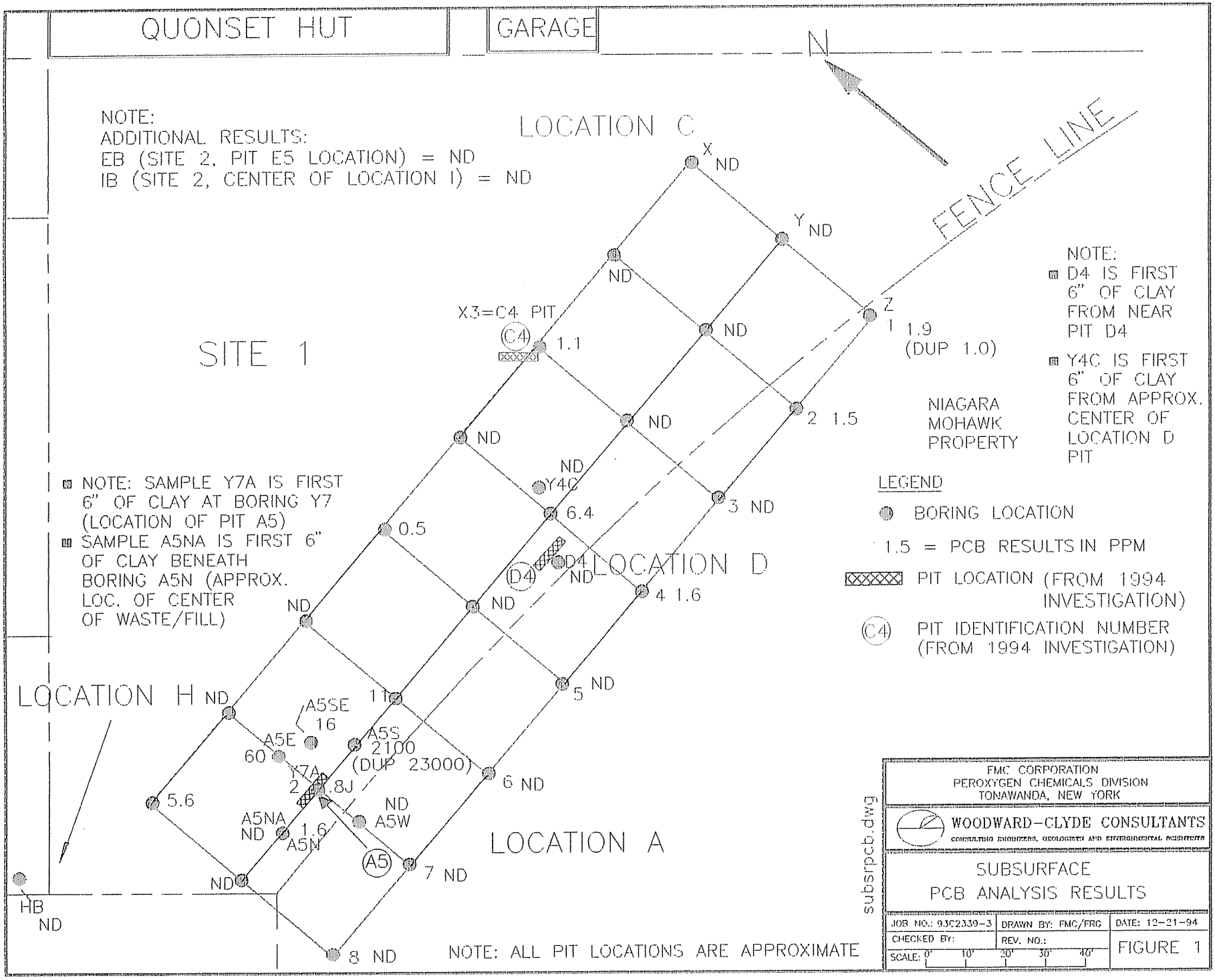
We appreciate your rapid response and look forward to your expeditious approval of this plan for interim remediation.

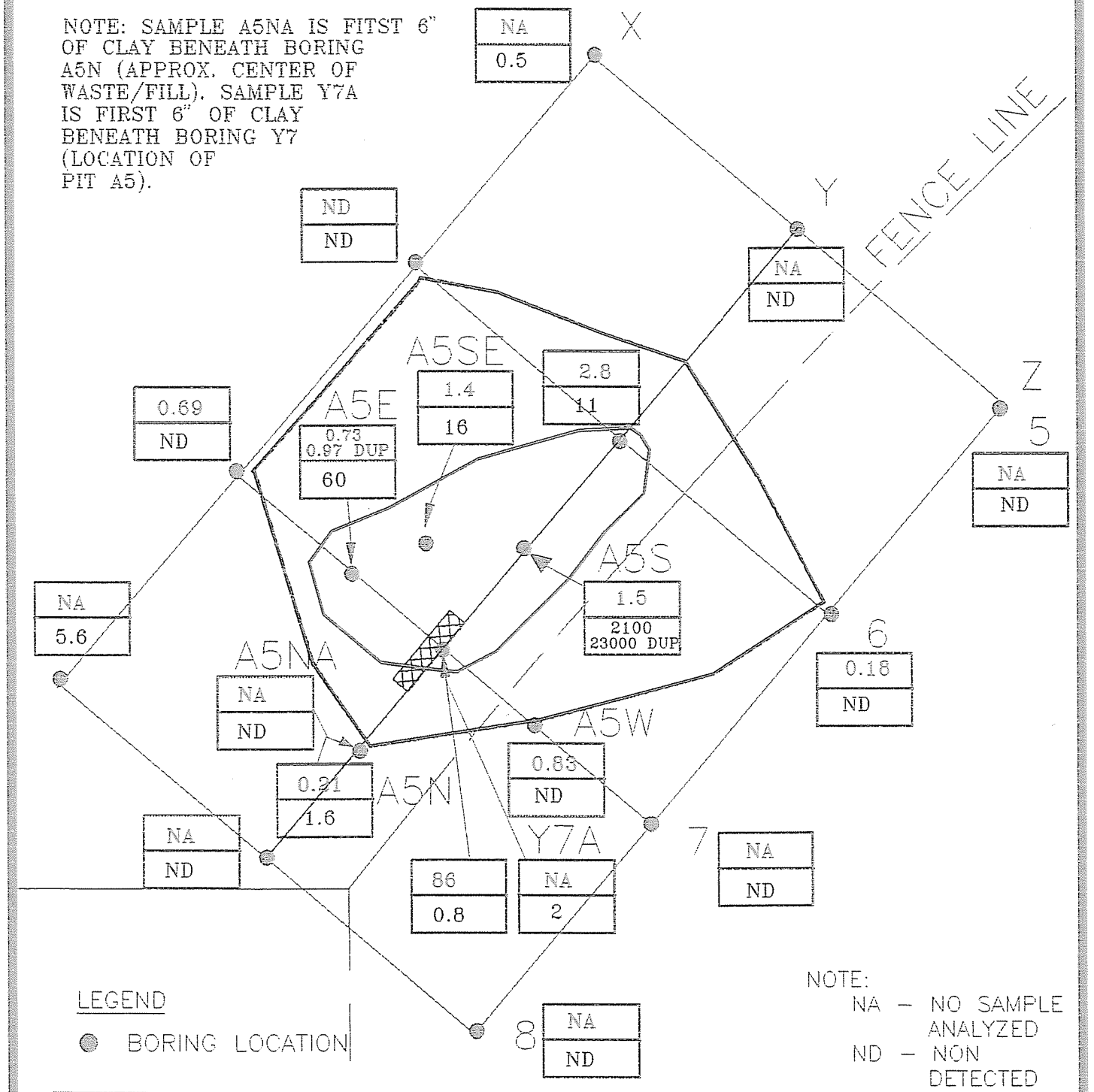
Sincerely,

Anthony J. Misercola
Assistant Project Scientist

James F. Roetzer / JFR

James F. Roetzer, Ph.D.
Vice President


QUONSET HUT
GARAGE
N
FENCE LINE
NOTE:
ADDITIONAL RESULTS:
EB (SITE 2, PIT E5 LOCATION) = ND
IB (SITE 2, CENTER OF LOCATION I) = ND
LOCATION C
SITE 1
X ND
Y ND
Z 1 1.9 (DUP 1.0)
X3=C4 PIT
(C4) 1.1
2 1.5
3 ND
4 1.6
5 ND
6 ND
7 ND
8 ND
Y4C 6.4
(D4) D4 ND
LOCATION D
0.5
11
5.6
A5SE 16
A5E 60
A5S 2100 (DUP 23000)
X7A 2
8J
A5NA ND
1.6 A5N
ND A5W
(A5)
LOCATION H
LOCATION A
HB ND
NIAGARA MOHAWK PROPERTY
NOTE:
D4 IS FIRST 6" OF CLAY FROM NEAR PIT D4
Y4C IS FIRST 6" OF CLAY FROM APPROX. CENTER OF LOCATION D PIT
NOTE: SAMPLE Y7A IS FIRST 6" OF CLAY AT BORING Y7 (LOCATION OF PIT A5)
SAMPLE A5NA IS FIRST 6" OF CLAY BENEATH BORING A5N (APPROX. LOC. OF CENTER OF WASTE/FILL)
LEGEND
BORING LOCATION
1.5 = PCB RESULTS IN PPM
PIT LOCATION (FROM 1994 INVESTIGATION)
(C4) PIT IDENTIFICATION NUMBER (FROM 1994 INVESTIGATION)
NOTE: ALL PIT LOCATIONS ARE APPROXIMATE
subsrpcb.dwg
FMC CORPORATION
PEROXYGEN CHEMICALS DIVISION
TONAWANDA, NEW YORK
WOODWARD-CLYDE CONSULTANTS
CONSULTING ENGINEERS, GEOLOGISTS AND ENVIRONMENTAL SCIENTISTS
SUBSURFACE
PCB ANALYSIS RESULTS
JOB NO.: 93C2339-3
DRAWN BY: FMC/FRG
DATE: 12-21-94
CHECKED BY:
REV. NO.:
SCALE: 0' 10' 20' 30' 40'
FIGURE 1



FMC CORPORATION
PEROXYGEN CHEMICALS DIVISION
TONAWANDA, NEW YORK

WOODWARD-CLYDE CONSULTANTS
CONSULTING ENGINEERS, GEOLOGISTS AND ENVIRONMENTAL SCIENTISTS

SURFACE AND SUBSURFACE PCB RESULTS AND POTENTIAL EXCAVATION SCENARIOS

JOB NO.: 93C2339-3	DRAWN BY: FMC/FRG	DATE: 8-23-95
CHECKED BY:	REV. NO.:	
SCALE: 0' 10' 20'		FIGURE 2

J Hyden

New York State Department of Environmental Conservation
270 Michigan Avenue, Buffalo, New York 14203-2999
(716) 851-7220

DEC

EARTH DAY 25 1995 ENVIRONMENTAL PARTNERS

Michael D. Zagata
Commissioner

September 15, 1995

Mr. Richard K. Wise
Environmental Manager
FMC Corp.
Peroxygen Chemicals Division
P.O. Box 845
Buffalo, New York 14240

Dear Mr. Wise:

This is in response to your September 1, 1995 letter in which you requested permission to use soil excavated during the fire cleanup as backfill in a portion of the inactive hazardous waste disposal site, which will be excavated as an interim remedial action.

Based on the submitted soil sample results, the soil is approved for use in the proposed manner. However, the operations plan requested by Mr. John W. Hyden in his August 28, 1995 letter is needed prior to undertaking the project. I have been informed by Mr. Hyden that the September 1, 1995 letter satisfies the backfill quality confirmation portion of the required operations plan.

If you have any questions regarding this matter, please contact Mr. Dennis Weiss at (716)851-7220.

Sincerely,

Mark Hans

Mark Hans
Regional Solid Waste Engineer

//ma

cc: Mr. John Hyden
Ms. Cheryl Webster
Mr. Robert Crossen
Mr. Robert Smythe

FMC Corporation

Peroxygen Chemicals Division
Box 845
Buffalo New York 14240
716 879 0400

September 1, 1995

Mr. Mark Hans
New York State Division of Environmental Conservation
Region 9
Division of Solid Waste
270 Michigan Avenue
Buffalo, New York 14203-2999

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Re: FMC Corporation
Tonawanda Peroxygen Chemicals Facility
Request for Permission to Use Excavated Soil as Backfill in Former Waste Disposal Site
DEC Site No. 915025

Dear Mr. Hans:

FMC would like to use an under layer of soil excavated from ditches during the cleanup from their recent fire to backfill an area to be excavated from a former waste disposal site. In the near future FMC plans to conduct an interim removal of PCB-containing waste from a former landfill site located on an inactive portion of FMC property. The PCB contamination was discovered during a Preliminary Site Assessment (PSA) conducted by FMC and its consultant, Woodward-Clyde Consultants under NYSDEC Order on Consent #B9-0431-93-06. In July of this year, an extent investigation showed the PCB contamination at the site to be localized. Woodward-Clyde has estimated that the excavation left after PCB removal and confirmatory sampling would require about 200 cubic yards of backfill soil. DEC has provided written approval for the interim remedial action (letter from John W. Hyden, NYSDEC to Richard K. Wise, August 28, 1995).

During the cleanup from the recent (August 18, 1995) fire at FMC's plant, a large amount of soil was excavated, mainly from the south ditch along Sawyer Avenue. The fire released a large quantity of acidic material to the road and adjacent property. Fire residues on the surface of roads and ditches was separated from the only slightly impacted soils underneath. DEC stipulated cleanup levels for soil at 6.5 pH. Residues were placed in lined and covered rolloff containers while soil piled in a paved lot and covered with polyethylene sheets. The rolloffs are being sent to CWM, Model City while the soil is being trucked to Waste Management's High Acres landfill. Analysis of this soil performed at an outside lab (attached) showed the soil pH to be similar to background levels. Eight samples were submitted for pH analysis and one composite sample, for TCLP metals analysis. The pH levels ranged from 7.85 to 9.54. Metals levels were either not detected or were well under TCLP criteria. Based on generator knowledge, no PCB or other hazardous contaminants would be expected in the ditch soil. There are no transformers in the vicinity of the site and the soil was taken from sufficiently deep elevations, that no oily road contaminants would be expected to be present.

FMC requests permission to use some of the ditch soil, which consists of a native clay, to backfill the excavation from the PCB remediation. Approximately 200 cubic yards of soil has been set aside for this purpose, pending NYSDEC review and approval. Should this request be denied, the soil will be hauled to Waste Management's High Acres Landfill and fresh fill material will be purchased to restore the excavated landfill area.

Should you have any questions regarding this request or need further information, please call me at 879-0405.

Sincerely,

Richard K. Wise
Environmental Manager

ACTS TESTING LABS, INC.
3916 Broadway
Buffalo, NY 14227-1104
Tel (716) 684-3300
Fax (716) 684-3303

Technical Report 5B-6149E

August 23, 1995
Page 1 of 2
ELAP ID# 10247

Mr. Bruce Warner
FMC CORPORATION

SUBJECT:

Analyses of nine (9) soil samples for various parameters. The samples were received on August 21, 1995.

RESULTS:

See Page Two.

EXPERIMENTAL:

The Toxicity Characteristic Leaching Procedure for Metals was determined as defined in Title 40, Code of Federal Regulations, Part 268, Appendix 1. The Toxicity Characteristic Leaching procedure was conducted according to "Test Methods for the Examination of Solid Waste Physical/Chemical Methods", EPA SW-846.

The remaining sample was analyzed according to "Test Methods for the Evaluation of Solid Waste Physical/Chemical Methods," SW-846.

ACTS TESTING LABS, INC.
Charles E. Hartke /LHO
Charles E. Hartke
Manager, Chemistry Laboratory

ACTS TESTING LABS, INC.
Lisa M. Clerici
Lisa M. Clerici, Supervisor
Wet Chemistry Laboratory

ACTS TESTING LABS, INC.
Elizabeth R. Hausler
Elizabeth R. Hausler, Supervisor
Gas Chromatography Laboratory

cme

ACTS TESTING LABS

August 23, 1995
Technical Report #5B-6149E

RESULTS:

TCLP METALS	ACTS #5B-6149E 082195-22	TCLP BLANK	TCLP LIMIT
Arsenic	< 0.05	< 0.05	5.0
Barium	0.58	0.69	100.0
Cadmium	< 0.005	< 0.005	1.0
Chromium	< 0.01	< 0.01	5.0
Lead	< 0.03	< 0.03	5.0
Mercury	< 0.0002	< 0.0002	0.2
Selenium	< 0.12	< 0.12	1.0
Silver	0.02	0.01	5.0

Results are reported as milligrams per liter (mg/L).

	ACTS #5B-6150E 082195-21A	ACTS #5B-6151E 082195-21B	ACTS #5B-6152E 082195-21C	ACTS #5B-6153E 082195-21D
pH	7.93	8.19	7.85	8.25

	ACTS #5B-6154E 082195-21E	ACTS #5B-6155E 082195-21F	ACTS #5B-6156E 082195-21G	ACTS #5B-6157E 082195-21H
pH	8.35	8.29	8.45	9.70 (9.54)*

*=Duplicate results

B16 K 12
MAR '80 15
8

CTS TESTING LABS, INC.
3916 Broadway
Buffalo, NY 14227-1104
Tel (716) 684-3300
Fax (716) 684-3303

Technical Report 5B-6149E

August 23, 1995

ELAP ID# 10247

Mr. Bruce Warner
FMC CORPORATION

SUBJECT:

Analyses of nine (9) soil samples for various parameters. The samples were received on August 21, 1995.

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The remaining sample was analyzed according to "Test Methods for the Evaluation of Solid Waste Physical/Chemical Methods," SW-846.

ACTS TESTING LABS, INC.

Charles E. Hartke /LHO

Charles E. Hartke
Manager, Chemistry Laboratory

ACTS TESTING LABS, INC.

Lisa M. Clerici

Lisa M. Clerici, Supervisor
Wet Chemistry Laboratory

ACTS TESTING LABS, INC.

Elizabeth R. Hausler

Elizabeth R. Hausler, Supervisor
Gas Chromatography Laboratory

cme

ACTS TESTING LABS

RESULTS:

TCLP METALS	ACTS #5B-6149E 082195-22	TCLP BLANK	TCLP LIMIT
Arsenic	< 0.05	< 0.05	5.0
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Lead	< 0.03	< 0.03	5.0
Mercury	< 0.0002	< 0.0002	0.2
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Results are reported as milligrams per liter (mg/L).

	ACTS #5B-6150E 082195-21A	ACTS #5B-6151E 082195-21B	ACTS #5B-6152E 082195-21C	ACTS #5B-6153E 082195-21D
pH	7.93	8.19	7.85	8.25

	ACTS #5B-6154E 082195-21E	ACTS #5B-6155E 082195-21F	ACTS #5B-6156E 082195-21G	ACTS #5B-6157E 082195-21H
pH	8.35	8.29	8.45	9.70 (9.54)*

* = Duplicate results

D. King

New York State Department of Environmental Conservation
270 Michigan Avenue, Buffalo, New York 14203-2999
(716) 851-7220

Michael D. Zagata
Commissioner

August 28, 1995

Mr. Richard K. Wise, Environmental Manager
FMC Corporation
Peroxygen Chemicals Division
P.O. Box 845
Buffalo, NY 14240

Dear Mr. Wise:

FMC Corporation
Former Waste Disposal Area
DEC Site No. 915025

In a Thursday, August 24 meeting at the FMC Plant with you, Ms. Patricia Nevrincean of the FMC Corporate Environmental Services Department and representatives from Woodward Clyde (FMC's consultant for the Preliminary Site Assessment (PSA) for the above referenced DEC Inactive Hazardous Waste Disposal Site), we discussed the possibility of excavating and backfilling a portion of the former waste disposal area. The subject area of our discussion was the soils in the disposal site that are contaminated with PCB's exceeding the New York State Soils Cleanup Objectives. This area is described in detail in Section 7.0, Recommendations, of the January 1995 PSA Report. It has been proposed by FMC to excavate these PCB soils at the present time, in conjunction with ongoing clean-up efforts relating to the plant fire of August 18, 1995.

Soils that were saturated by acidic waters used to quench the fire are being excavated for off-site disposal. We understand that the fire was caused by heat generated the decomposition of persulfates that were being stored in the warehouse. In turn, sulfuric acid was generated when the waters being sprayed on the fire dissolved the persulfates. To insure that all the soils containing acid are removed, the excavations have been extended beyond the plume of the acidic waters. Therefore, there appear to be sufficient quantities of soils suitable for backfilling the PCB contaminated portion of the former waste disposal area.

Please note that the PCB excavation and backfill project proposed will be subject to review and final acceptance by the Department and the New York State Department of Health. Such acceptance should be forthcoming if appropriate procedures are followed. There must be adequate sampling and analyses to demonstrate that:

A. All PCBs soils above clean-up criteria are excavated from the disposal site, and

B. Backfill soils are of typical background quality for Ph and meet PCB criteria.

Please provide this office with a brief project operations plan which details the actions to be undertaken as part of the proposed removal action. The plan must also include the sampling and analysis to be performed to delineate the limits of excavation, confirm the quality of backfill, and confirm adequate removal of the PCB contamination. Given your time constraints, this operations plan can be presented in letter form and faxed or hand delivered. As discussed in the meeting, please provide notification prior to the start of excavation and prior to backfilling so that we can arrange for our field inspections.

Sincerely yours,

John W. Hyden, PhD, P.E.
Environmental Engineer

cc: Mr. Robert Leary/Mr. Robert Crossen, NYSDEC
Mr. Cameron O'Connor, NYS DOH

FMC CORPORATION
PEROXYGEN CHEMICALS DIVISION
TONAWANDA, NEW YORK
FAX # 716-879-0433

---FAX TRANSMISSION ---

TO: MR. BIJAN ROSTAMI DATE: 8/22/95

LOCATION: NYS DEC FAX # 851-7226

FROM: BRUCE WARNER PHONE # 879-0406

LOCATION: FMC CORP FAX # 879-0433

TOTAL NUMBER OF PAGES (INCLUDING COVER SHEET) : _____

IF THERE IS A PROBLEM IN TRANSMISSION, PLEASE CALL SENDER AT ABOVE PHONE # OR CALL (716) 879-0420.

MESSAGE: BIJAN,

ATTACHED IS A LETTER DESCRIBING SEVERAL WASTESTREAMS WE ARE ATTEMPTING TO SHIP OFF SITE. CWM HAS APPROVED THE TOP LAYER EXCAVATION MATERIAL. WE'RE WAITING FOR APPROVAL FROM WASTE MGMT. ON THE BOTTOM LAYER.

I HOPE TO TALK WITH YOU TOMORROW, SHOULD YOU HAVE ANY QUESTIONS. THANKS

BRUCE WARNER

P.S. RICH WISE WANTED ME TO TELL YOU THAT THERE WAS NO HAZARDOUS WASTES

WILL FORWARD HARD COPY OF MSDS'S LATER.

FMC Corporation

Peroxygen Chemicals Division
Box 845
Buffalo New York 14240
716 879 0400

August 22, 1995

Waste Management Inc.
425 Periton Parkway
Fairport, NY 14450

Attn.: Joann Raguso

Dear Ms. Raguso:

This will confirm our conversation regarding disposal of some slightly contaminated soil which was excavated during the course of clean up of the August 18, 1995 fire at FMC's Tonawanda peroxygen chemicals plant. The fire burned a product storage warehouse which contained inorganic oxidizer products: ammonium persulfate. potassium persulfate and sodium persulfate. Material Safety Data Sheets for these products are attached.

During the fire, products underwent thermal decomposition, producing sulfur bearing acids and ammonium, potassium and sodium sulfates. The firewater runoff and ash from the fire contaminated the top layer of road, lawns and soil in the vicinity of the plant. Incident clean up has produced two types of material for disposal: a contaminated top layer and only slightly impacted bottom layer of soil and debris.

The more heavily contaminated waste, which includes product residues and the top layer of soils and asphalt, will be disposed in a secure chemical landfill at CWM's Model City facility. This material was characterized using screening tests for oxidizer properties (using potassium iodide-starch paper test) and pH (20% slurries). None of the first 40 roll off boxes analyzed showed any hazardous properties. These materials will be classified as RCRA and DOT non-hazardous. The remaining rolloffs will be similarly tested prior to shipment.

The underlying soil is only mildly contaminated with ammonium, potassium and sodium salt residues. This soil was removed in conformance with an agreement with New York State Department of Environmental Conservation's (NYSDEC's), which ensures that neighboring property is restored to background pH and original condition. The soil is the material that FMC would like to dispose at Waste Management's High Acres facility, provided all analyses show the soil to be non-hazardous. To complete the characterization, FMC has submitted to an independent state-certified lab eight (8) grab samples of the soil for pH testing and one composite sample for TCLP metals analysis. Results of these analyses will be forwarded separately. In addition, FMC personnel will be running oxidizer screening test on the pile to ensure that the soil does not exhibit oxidizing properties. Mr. Bidjan Rostami, of NYSDEC's Division of Hazardous Substances, Region 9, Buffalo office has been apprised of and concurs with this disposal plan.

Should you have any questions, please contact me at (716) 879-0405.

Sincerely

Bruce R. Warner

Bruce R. Warner
Environmental Engineer

cc: Mr. Bidjan Rostami, P.E.
New York State Division of Hazardous Substances
Region 9
270 Michigan Avenue
Buffalo, NY 14203-2999

FMC Corporation

Peroxygen Chemicals Division
Box 845
Buffalo New York 14240
716 879 0400

FMC

July 11, 1995

Mr. John W. Hyden, PhD, P.E.
Environmental Engineer II
NYS Department of Environmental Conservation
Region 9
270 Michigan Avenue
Buffalo, NY 14203-2999

Re: Additional Sampling for
Preliminary Site Assessment (PSA)
FMC Corporation
Peroxygen Chemicals Division Facility
Tonawanda, New York
NYSDEC Site No. 915025
Order on Consent Index #B9-0431-93-06

Dear Mr. Hyden:

Confirming our July 10, 1995 phone conversation, FMC has signed an agreement with Niagara Mohawk Power Corporation permitting access to Niagara Mohawk property to conduct additional sampling to satisfy Order on Consent #B9-0431-93-06.

Pending confirmation of driller schedules, the sampling, which may take several days to complete, is scheduled to begin on Thursday, July 27, 1995. Agency representatives may collect split samples if desired and requested.

As we discussed, I will notify you and others receiving this letter if there is any change in the sampling schedule.

Very truly yours,

Richard K. Wise
Environmental Manager

cmf

cc: Mr. Cameron O'Conner
New York State Department of Health
584 Delaware Avenue
Buffalo, New York 14202

Mr. Paul Kranz
Erie County Department of Environment & Planning
95 Franklin Street
Buffalo, New York 14202

Mr. Michael Boesl
Niagara Mohawk Power Corporation
Huntley Steam Station
3500 River Road
Tonawanda, New York 14150

Mr. James Roetzer
Woodward-Clyde Consultants
15 Hazelwood Drive, Suite 110
Amherst, New York 14228

Mr. Rick Kennedy, Esq.
Hodgson, Russ, Andrews, Woods & Goodyear
Attorneys at Law
1800 One M&T Plaza
Buffalo, New York 14203

New York State Department of Environmental Conservation
270 Michigan Avenue, Buffalo, New York 14203-2999
(716) 851-7220

June 9, 1995

Mr. Richard K. Wise, Environmental Manager
FMC Corporation
Peroxygen Chemicals Division
P.O. Box 845
Buffalo, NY 14240

Dear Mr. Wise:

Preliminary Site Assessment
FMC Corporation
DEC Site No. 915025

The response to our February 28, 1995 comments to the above referenced Preliminary Site Assessment (PSA) Report, as given in your April 13 letter, are acceptable to us except for the response to Comment # 2, on the definition of surface water pathways. In addition to the verbiage describing the surface water run-off paths, we request that a plot of these routes be provided. This plot plan should include all drainage ditches and swales, in order to completely show all drainage routes from all areas. We prefer that the plot plan and applicable discussion be submitted to us either prior to, or along with the Data Analysis mentioned on Page 4 of your letter. Thank you for your attention to this request. If you have questions on this correspondence, please contact us.

Sincerely yours,

John W. Hyden, PhD, P.E.
Environmental Engineer II

cc: Ms. Jane Thapa

FMC Corporation

Peroxygen Chemicals Division
Box 845
Buffalo New York 14240
716 876 8300

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

April 13, 1995

Mr. John Hyden
Environmental Engineer II
New York State Department of
Environmental Conservation
270 Michigan Avenue
Buffalo, NY 14203-2999

Subject: Response to NYSDEC Comments -
Work Plan Addendum
Preliminary Site Assessment (PSA)
FMC Corporation, Tonawanda, New York
DEC Site 915025

Dear Mr. Hyden:

On Tuesday, March 21, 1995, representatives of FMC Corporation (Richard Wise, Patricia Nevrincean) and Woodward-Clyde Consultants (James Roetzer, Anthony Misercola) met with you at FMC's Tonawanda facility. At this meeting, we discussed the February 28, 1995 letter from the New York State Department of Environmental Conservation (NYSDEC), over your signature, providing comments relative to the PSA Report dated January 19, 1995 for the above-captioned program.

We understand, based on the comment letter and our meeting, that NYSDEC found the PSA Report to be satisfactory. Some additional information and testing was requested by NYSDEC to be performed as part of the investigation proposed by FMC at Section 7 in the PSA Report. The following summarizes our discussions and understanding of agreements at the March 21, 1995 meeting. Additionally, a schedule of activities to be performed for the supplemental PSA work is presented herein. Actual dates for the field activities will be provided to NYSDEC following selection of subcontractors (laboratory, drilling) and negotiation of an access agreement with Niagara Mohawk for off-site work.

For ease of review, the comments and our discussions/agreements have been restated and addressed separately. We understand that the agreements reached at the meeting are subject to your written confirmation after NYSDEC's review is completed.

NYSDEC COMMENT #1

To confirm that no PCBs have migrated from Disposal Areas A and D, we recommend that immunoassay tests for Aroclor 1254 and 1260 be performed in Areas C-4, E-5, H and I (see PSA Figure 4-1 and Table 5-1).

RESPONSE TO COMMENT #1

FMC agreed that subsurface (approximately 6 feet deep) samples from the four NYSDEC requested locations would be analyzed for PCBs. As discussed at the meeting, location C-4 was already included for additional investigation in the proposed work plan presented in the PSA report (see PSA Report Figure 7-1). Thus, three additional samples will be collected (from Areas E-5, H and I). We understand that immunoassay test kits for PCB analyses were suggested by NYSDEC based on potential cost savings. However, it was agreed at the meeting that all subsurface samples requiring analysis including the additionally requested NYSDEC locations, would be analyzed for PCBs by an off-site certified laboratory using EPA Method 8080 (medium level) which provides detection limits in the range of 1-2 ppm. This detection limit is well below NYSDEC's guidance value of 10 ppm PCBs for subsurface soils.

NYSDEC COMMENT #2

... surface water pathways from these areas should be defined.

RESPONSE TO COMMENT #2

A discussion of surface water pathways for Site-1 and Site-2 is presented in Section 3.1 of the PSA Report. In general, surface water run-off from Site-1 flows toward Site-2. Intermittent drainage ditches are present along the northern boundary of Site-2, adjacent to Sawyer Avenue, and the western boundary, adjacent to River Road. These ditches may receive surface water run-off from Site-2. Some surface water drainage may also occur at the southern boundary of Site-1, along the Niagara Mohawk rail spur. There are no surface water bodies on either Site-1 or Site-2.

As discussed at the meeting, subsequent to use for waste disposal in approximately 1976, the disposal areas were covered with clay. As such, it was agreed at the meeting, that based on the presence of a clay cap, migration of PCBs via surface water run-off is not an issue. (During excavation of test pits to conduct the PSA, portions of the clay cap were disturbed; to the extent practical, the excavated clay was replaced on top of the test pit excavation). At the meeting, you requested that selected samples of the clay cap (overlying areas of PCB contamination) be analyzed for PCBs at detection limits below 1 ppm, to confirm the absence of surficial contamination. FMC agreed to collect and analyze surface soil samples in areas containing elevated PCBs in the subsurface.

Surface soil samples, (0 to 1 foot below grade) representing undisturbed samples of the clay cap, will be obtained at or adjacent to each boring location. These samples will be retained for laboratory analyses, following completion of the subsurface analyses. Two surface soil samples will be analyzed from each area (e.g., Area A or D) where PCBs greater than 10 ppm are detected in the subsurface. These surface soil samples will be biased toward the highest detected PCB concentrations in the subsurface boring samples, i.e., surface soil samples will be analyzed at the locations of the two highest subsurface PCB concentrations. No surface soil samples will be analyzed in Areas where PCBs are not detected in subsurface samples, or where PCB subsurface concentrations are below 10 ppm. The surface soil samples will be analyzed using Method 8080, low-level, which is capable of achieving detection limits on the order of 0.1 to 0.2 ppm. Because surface samples for analysis will be selected after completion of subsurface samples, the prescribed method holding time will be exceeded; however, considering the stability of PCBs, results of analyses will be considered valid despite the holding time exceedance.

NYSDEC COMMENT #3

Provisions should be made for DEC and other government agency representatives to be given the opportunity to observe the field investigation activities described in PSA Report Sections 7.2.1 and 7.2.2. Also, these representatives should be given the opportunity to take split samples for analyses.

RESPONSE TO COMMENT #3

FMC will notify NYSDEC approximately two weeks in advance of expected sampling dates. NYSDEC representatives will be allowed to collect split samples, if desired and requested.

A schedule of activities to be performed for the supplemental PSA work is as follows:

ACTIVITY	SCHEDULE
Mobilization/Preparation Subcontracting	To be completed within 30 days of obtaining access from Niagara Mohawk for off-site work, and obtaining NYSDEC approval of this addendum letter.
Field Work * Soil Borings * Sample Collection	Expected to be completed within one week of mobilization, weather permitting.

ACTIVITY	SCHEDULE
Laboratory Analysis * Soils Samples	Expected to be completed within 8 weeks, to allow for two rounds of analysis, if necessary
Data Analysis/Report Preparation	Report of findings (per Paragraph III.D of the order on consent) to be submitted to NYSDEC as a supplement to the PSA Report within 60 days of receipt of the final laboratory results

As previously noted, actual dates for the activities above will be provided to NYSDEC subsequent to contractor selection and completion of arrangements for access to Niagara Mohawk property.

Based on the results of this further investigation, FMC will evaluate remedial options and provide a recommendation to the NYSDEC with the supplemental PSA report.

Please advise us at your earliest convenience if this letter is acceptable to NYSDEC. If so, this letter can serve as an addendum to the recommendations for additional investigation in the January 19, 1995 PSA Report. We look forward to hearing from you.

Very truly yours,

Richard K. Wise
Environmental Manager

New York State Department of Environmental Conservation
270 Michigan Avenue, Buffalo, New York 14203-2999
(716) 851-7220

Langdon Marsh
Acting Commissioner

February 28, 1995

Mr. Richard K. Wise, Environmental Manager
FMC Corporation
Peroxygen Chemicals Division
P.O. Box 845
Buffalo, NY 14240

Dear Mr. Wise:

Preliminary Site Assessment
FMC Corporation
DEC Site No. 915025

The January, 1995 Preliminary Site Assessment (PSA) report has been reviewed, and we have these comments:

- To confirm that no PCB's have migrated from Disposal Areas A and D, we recommend that immunoassay tests for Arochlor 1254 and 1260 be performed in Areas C-4, E-5, H and I (See PSA Fig. 4-1 and Table 5-1). In addition, surface water pathways from these areas should be defined.

- Provisions should be made for DEC and other government agency representatives to be given the opportunity to observe the field investigation activities described in PSA Report Sections 7.2.1 and 7.2.2. Also, these representatives should be given the opportunity to take split samples for analyses.

Other than these two comments, we find the PSA Report to be satisfactory. If agreeable, please address these comments in some appropriate manner and also provide us with the schedules for doing the tasks presented in Section 7.0, Recommendations, of this report. If you have questions on this correspondence, please contact us.

Sincerely yours,

John W. Hyden, PhD, P.E.
Environmental Engineer II

cc: Ms. Jane Thapa -NYSDEC
Mr. Cameron O'Connor-NYSDOH
Mr. Paul B. Kranz-ECDEP
Mr. James Hazel, Esq, - NYSDEC

cc: Robert M. Crossen - Spill Response Unit
John W. Hyden, PhD, P.E. - Division of Hazardous Waste Remediation
J. Robert Smythe - Division of Water

New York Division of of Environmental Conservation
Region 9
270 Michigan Avenue
Buffalo, New York 14203-2999

bcc: BE Reighard
DC Landgraf, PA Nevrincean- Philadelphia

James Roetzer
Woodward-Clyde Consultants
15 Hazelwood Drive, Suite 110
Amherst, New York 14228-2229

DRK

New York State Department of Environmental Conservation
270 Michigan Avenue, Buffalo, New York 14203-2999
(716) 851-7220

Langdon Marsh
Acting Commissioner

February 28, 1995

Mr. Richard K. Wise, Environmental Manager
FMC Corporation
Peroxygen Chemicals Division
P.O. Box 845
Buffalo, NY 14240

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Preliminary Site Assessment
FMC Corporation
DEC Site No. 915025

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Sincerely yours,

John W. Hyden, PhD, P.E.
Environmental Engineer II

cc: Ms. Jane Thapa -NYSDEC
Mr. Cameron O'Connor-NYSDOH
Mr. Paul B. Kranz-ECDEP
Mr. James Hazel, Esq, - NYSDEC

JH

New York State Department of Environmental Conservation
50 Wolf Road, Albany, New York 12233-7010

Langdon Marsh
Commissioner

MEMORANDUM

TO: John W. Hyden, Region 9 Buffalo

FROM: Jane C. Thapa, BHSC, Albany JCT

SUBJECT: FMC Corp. - Chemical Division, Tonawanda, Site I.D. No. 915025

DATE: FEB 7 1995

I received your January 26, 1995 memo to Carl Hoffman. I have become the BHSC contact for this site. My review of this report indicates that while oxidizers, the original contaminants of concern, are apparently not present, high levels of PCB's are present at this site. I agree that additional work is warranted. However, Woodward-Clyde's recommendations for further work will not be sufficient to characterize the site.

Sample A-5 contained 16,000 ug/g (ppm) of Aroclor 1260. Only one other sample was analyzed for PCB's and it also contained PCB's at more than 10 ppm. Both of these samples were from test pits. As no surficial samples were collected, the threat posed by the PCB's can't be determined. At this time, only the PCB's are known to be of concern. The two samples analyzed for volatile compounds did not show significant concentrations, however, they not conclusively show the absence of the volatiles for which disposal was documented. Additional parameters should be analyzed to determine whether they are problems at the site.

Surface water and ground water sampling should be conducted to determine whether contamination is migrating to the Niagara River. The site is upgradient of drinking water intakes. An indication of whether the site is in a flood plain is needed.

If you have any questions, please contact me at (518) 457-9538.

STATE OF NEW YORK
DEPARTMENT OF HEALTH

Regional Office 584 Delaware Avenue Buffalo, New York 14202

DKK
VH

FOIL
Releasable
Non-Releasable

February 6, 1995

OFFICE OF PUBLIC HEALTH
Lloyd F. Novick, M.D.,M,P.H.
Director
Diana Jones Ritter
Executive Deputy Director
Olivia Smith-Blackwell, M.D., M.P.H.
Regional Health Director

Mr. John Hyden
New York State Department
Environmental Conservation
270 Michigan Ave.
Buffalo, New York 14203

RE: Preliminary Site Assessment
FMC Corporation
Site #915025
Town of Tonawanda, Erie Co.

Dear Mr. Hyden:

I have reviewed the Preliminary Site Assessment for the FMC Corporation Site in the Town of Tonawanda. I concur with the consultants conclusions that additional investigation is required to determine the extent of PCB contamination in Locations A and D.

If you have any question, please call me at 847-4502.

Sincerely,

Cameron H. O'Connor
Public Health Specialist III

CHO:bjw
cc: Dr. Smith Blackwell
Dr. Carlson/Mr. Wakeman
Mr. King, NYSDEC
Mr. Koceila, ECHD

NEW YORK STATE DEPARTMENT OF HEALTH
Western Regional Office
584 Delaware Avenue
Buffalo, NY 14202

TO: [illegible]

- [x] For your information
- [ ] Please handle
- [ ] Review and comment
- [ ] For your signature
- [ ] For your file
- [ ] See me

RECEIVED
FEB 7 1995
NYSDEC-REG. 9
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FROM: Cameron O'Connor

DATE: 2-6-95

JH — BEIC

STATE OF NEW YORK
DEPARTMENT OF HEALTH

Regional Office 584 Delaware Avenue Buffalo, New York 14202

RECEIVED
FEB 7 1995
NYSDEC REG 9
FOIL
X REL ___UNREL

OFFICE OF PUBLIC HEALTH
Lloyd F. Novick, M.D.,M,P.H.
Director
Diana Jones Ritter
Executive Deputy Director
Olivia Smith-Blackwell, M.D., M.P.H.
Regional Health Director

February 6, 1995

Mr. John Hyden
New York State Department
Environmental Conservation
270 Michigan Ave.
Buffalo, New York 14203

RE: Preliminary Site Assessment
FMC Corporation
Site #915025
Town of Tonawanda, Erie Co.

Dear Mr. Hyden:

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If you have any question, please call me at 847-4502.

Sincerely,

Cameron H. O'Connor
Public Health Specialist III

CHO:bjw
cc: Dr. Smith Blackwell
Dr. Carlson/Mr. Wakeman
Mr. King, NYSDEC
Mr. Koceila, ECHD

FMC Corporation

Peroxygen Chemicals Division
Box 845
Buffalo New York 14240
716 876 8300

FMC

February 2, 1995

Mr. Cameron O'Connor
Public Health Specialist
NYS Department of Health
Buffalo Regional Office
574 Delaware Avenue
Buffalo, NY 14202

Re: Order on Consent Index #B9-0431-93-06
Preliminary Site Assessment
PSA Report
FMC Corporation
Peroxygen Chemicals Division Facility
Tonawanda, New York
NYSDEC Site No. 915025

Dear Mr. O'Connor:

As requested by John Hyden (NYSDEC), a copy is enclosed for your use of the Preliminary Site Assessment (PSA) Report which provides results from the Sampling/Surveys program at FMC Corporation's (FMC) Tonawanda, New York facility. This PSA Report was prepared in accordance with Paragraph III.D. of the above-referenced Order on Consent.

If there are questions concerning the PSA Report, please contact me at the above address or call me at (716) 879-0405.

Very truly yours,

Richard K. Wise
Environmental Manager

Enclosure

cc: Mr. John Hyden
NYSDEC, Region 9
270 Michigan Avenue
Buffalo, NY 14203-2999

New York State Department of Environmental Conservation
270 Michigan Avenue, Buffalo, New York 14203-2999

Langdon Marsh
Acting Commissioner

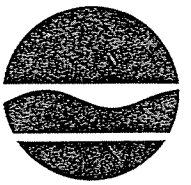
M E M O R A N D U M

To: Paul B. Kranz. P.E., Erie County Dept. of Environment and Planning
From: John W. Hyden, P.E., Region 9 Office, NY State DEC
Ref: FMC Corp. - Chemical Div.- Town of Tonawanda
DEC Site No. 915025
Date: January 26, 1995

Enclosed is a copy of the January, 1995 Preliminary Site Assessment (PSA) Report for the above referenced DEC Inactive Hazardous Waste Site for your information and/or files. Please review this report and send us any comments you may have on it on or before February 10, 1995. If you require additional time beyond this date for your review, please contact us.

cc: Mr. James Hazel

New York State Department of Environmental Conservation
270 Michigan Avenue, Buffalo, New York 14203-2999



Langdon Marsh
Acting Commissioner

M E M O R A N D U M

To: Cameron O'Connor, Buffalo Regional Office, NY State DOH
From: John W. Hyden, Region 9 Office - NYS State DEC
Ref: FMC Corp. - Chemical Div. - Town of Tonawanda
Site No. 915025
Date: January 26, 1995

According to a January 19 transmittal letter from Mr. Richard K. Wise of FMC, you have received a copy of the January, 1995 Preliminary Site Assessment Report for the above referenced site. Please review this report and send us any comments you may have on it on or before February 10, 1995. If you require additional time beyond this date for your review, please contact us.

cc: Mr. James Hazel

New York State Department of Environmental Conservation
270 Michigan Avenue, Buffalo, New York 14203-2999

DKK

JH

Langdon Marsh
Acting Commissioner

To: Carl Hoffman, Bureau of Haz. Waste Remediation
From: John W. Hyden, Region 9 Office
Ref: FMC Corp. - Chemical Div.- Town of Tonawanda
Site No. 915025
Date: January 26, 1995

According to a January 19 transmittal letter from Mr. Richard K. Wise of FMC, you have received a copy of the January, 1995 PSA Report for the above referenced site. Please review this report and send us any comments you may have on it on or before February 10. If you require additional time beyond this date for your review, please contact us.

cc: Mr. James Hazel

FMC Corporation

Peroxygen Chemicals Division
Box 845
Buffalo New York 14240
716 876 8300

BKR JH

FMC

January 19, 1995

SENT BY FEDERAL EXPRESS

Regional Hazardous Waste
Remediation Engineer
Division of Hazardous Waste Remediation
NYS Department of Environmental Conservation
Region 9
270 Michigan Avenue
Buffalo, NY 14203-2999

Re: Order on Consent Index #B9-0431-93-06
Preliminary Site Assessment
PSA Report
FMC Corporation
Peroxygen Chemicals Division Facility
Tonawanda, New York
NYSDEC Site No. 915025

Dear Sir or Madam:

Enclosed please find three (3) copies (one unbound) of the Preliminary Site Assessment (PSA) Report which provides results from the Sampling/Surveys program at FMC Corporation's (FMC) Tonawanda, New York facility. This PSA Report was prepared in accordance with Paragraph III.D. of the above-referenced Order on Consent. As provided in the schedule contained in the PSA Work Plan and Addendum, approved by the New York State Department of Environmental Conservation (NYSDEC) by letter dated August 12, 1994, this submittal of the PSA Report is made within sixty (60) days of receipt of final laboratory results.

If there are questions concerning the PSA Report, if further information is needed, or if you would like to schedule a meeting to discuss the report contents and the recommended next phase of investigation, please contact me at the above address or call me at (716) 879-0405.

Very truly yours,

Richard K. Wise

Richard K. Wise
Environmental Manager

Enclosure

cc: Director, Bureau of Environmental
Exposure Investigation
New York State Department of Health
2 University Place
Albany, New York 12203 (2 copies)

Director, Bureau of Hazardous Site Control
NYS Department of Environmental Conservation
50 Wolf Road
Albany, New York 12233

Western Region Director
Division of Environmental Enforcement
NYS Department of Environmental Conservation
270 Michigan Avenue
Buffalo, New York 14203-2999 (w/o enc.)

Rick W. Kennedy, Esq.
Hodgson, Russ, Andrews, Woods & Goodyear
Attorneys at Law
1800 One M&T Plaza
Buffalo, New York 14203