STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
PUBLIC NOTICE NO: 2015 – 6A – F
DATE OF NOTICE: JUNE 2, 2015

The Office of Water Quality issues the following NPDES FINAL PERMIT.

MINOR – RENEWAL

RADIO MATERIALS CORP, Permit No. IN0063657, FOUNTAIN COUNTY, 1095 E Summit St, Attica, IN. This industrial facility discharges 0.187 million gallons daily of ground water remediation into Riley Lake tributary to the Wabash River. Contact Permit Manager: Miranda Hancock, 317/234-8129, MJHancoc@idem.IN.gov.

APPEAL PROCEDURES FOR FINAL PERMITS

The Final Permits are available for review & copies at IDEM, Indiana Government Center, North Bldg, 100 N Senate Ave, Indianapolis, IN, Rm 1203, Office of Water Quality/NPDES Permit Section, from 9 – 4, M - F (copies 10¢ per page). Each Final Permit is available at the respective, local County Health Department. . See these sites for your rights & responsibilities: Public Participation: http://www.in.gov/idem/5474.htm; Citizen Guide: http://www.in.gov/idem/5903.htm. **Please tell others you think would be interested in this matter**

Appeal Procedure: Any person affected by the issuance of the Final Permit may appeal by filing a Petition for Administrative Review with the Office of Environmental Adjudication **within** eighteen (18) days of the date of this Public Notice. Any appeal request must be filed in accordance with IC 4-21.5-3-7 and must include facts demonstrating that the party requesting appeal is the applicant; a person aggrieved or adversely affected or is otherwise entitled to review by law.
Timely filing: The Petition for Administrative Review must be received by the Office of Environmental Adjudication (OEA) **within** 18 days of the date of this Public Notice; either by U.S. Mail postmark or by private carrier with dated receipt. This Petition for Administrative Review represents a request for an Adjudicatory Hearing, therefore must:

- state the name and address of the person making the request;
- identify the interest of the person making the request;
- identify any persons represented by the person making the request;
- state specifically the reasons for the request;
- state specifically the issues proposed for consideration at the hearing;
- identify the Final Permit Rule terms and conditions which, in the judgment of the person making the request, would be appropriate to satisfy the requirements of the law governing this NPDES Permit rule.

If the person filing the Petition for Administrative Review desires any part of the NPDES Final Permit Rule to be stayed pending the outcome of the appeal, a Petition for Stay must be included in the appeal request, identifying those parts to be stayed. Both Petitions shall be mailed or delivered to the address here:
Phone: 317/232-8591.

Environmental Law Judge
Office of Environmental Adjudication
IGC – North Building- Rm 501
100 N. Senate Avenue
Indianapolis IN 46204

Stay Time frame: If the Petition (s) is filed **within** eighteen (18) days of the mailing of this Public Notice, the effective date of any part of the permit, within the scope of the Petition for Stay is suspended for fifteen (15) days. The Permit will become effective again upon expiration of the fifteen (15) days, unless or until an Environmental Law Judge stays the permit action in whole or in part.

Hearing Notification: Pursuant to Indiana Code, when a written request is submitted, the OEA will provide the petitioner or any person wanting notification, with the Notice of pre-hearing conferences, preliminary hearings, hearing stays or orders disposing of the Petition for Administrative Review. Petition for Administrative Review must be filed in compliance with the procedures and time frames outlined above. Procedural or scheduling questions should be directed to the OEA at the phone listed above.

ATTACHMENT 20

RADIO MATERIALS CORPORATION

GWET SYSTEM OPERATIONS SCREEN CAPTURE FROM AUGUST 21, 2015

Materials Ground Water Remediation System

Action USB Ctrl+Alt+Del

8/21/2216 1:07:47 PM EW-09 LOW Flow Alarm

1 0 11 0

EW-07 ENABLED	ENABLE EW-07	DISABLE EW-07
EW-08 ENABLED	ENABLE EW-08	DISABLE EW-08
EW-09 ENABLED	ENABLE EW-09	DISABLE EW-09
EW-10 ENABLED	ENABLE EW-10	DISABLE EW-10
EW-11 ENABLED	ENABLE EW-11	DISABLE EW-11
EW-12 ENABLED	ENABLE EW-12	DISABLE EW-12
EW-13 DISABLED	ENABLE EW-13	DISABLE EW-13
EW-14 ENABLED	ENABLE EW-14	DISABLE EW-14
EW-15 DISABLED	ENABLE EW-15	DISABLE EW-15

08/21/15

1:09:36

	PUMP BEW-01	PUMP EW-01	PUMP EW-02	PUMP EW-03	PUMP EW-04	PUMP EW-05	PUMP EW-06
FLOW RATE:	30.3 GPM	12.7 GPM	12.5 GPM	12.3 GPM	12.7 GPM	12.2 GPM	12.9 GP
DAILY TOTAL FLOW:	25791 GAL	10779 GAL	10641 GAL	10458 GAL	10753 GAL	10377 GAL	11002 GA
TOTAL FLOW:	20558952 GAL	2912351 GAL	7491610 GAL	7320615 GAL	6404980 GAL	8227672 GAL	7117393 GA
WELL WATER LEVEL:	5.78 Feet	2.35 Feet	7.44 Feet	2.00 Feet	2.76 Feet	5.32 Feet	2.85 Fee

PUMP EW-07
10.5 GPM
3531 GAL
5410235 GAL
2.65 Feet

PUMP EW-08
11.5 GPM
9806 GAL
5576131 GAL
4.34 Feet

EW-09 in ALARM
0.0 GPM
100 GAL
87025 GAL
0.33 Feet

BEW-01 ENABLED	ENABLE BEW-01	DISABLE BEW-01
EW-01 ENABLED	ENABLE EW-01	DISABLE EW-01
EW-02 ENABLED	ENABLE EW-02	DISABLE EW-02
EW-03 ENABLED	ENABLE EW-03	DISABLE EW-03
EW-04 ENABLED	ENABLE EW-04	DISABLE EW-04
EW-05 ENABLED	ENABLE EW-05	DISABLE EW-05
EW-06 ENABLED	ENABLE EW-06	DISABLE EW-06

AIR STRIPPER BLOWER

FILTER FEED PUMP
146 GPM
122399 GAL
79376720 GAL

36.6 VFD Freq.

BUILDING SUMP PUMP

AIR STRIPPER ENABLED	ENABLE AIR STRIPPER	DISABLE AIR STRIPPER
FILTER PUMP ENABLED	ENABLE FILTER FEED PUMP	DISABLE FILTER FEED PUMP
SUMP PUMP ENABLED	ENABLE Bldg SUMP PUMP	DISABLE Bldg SUMP PUMP

PUMP EW-15	PUMP EW-14	PUMP EW-13	PUMP EW-12	PUMP EW-11	PUMP EW-10
0.0 GPM	2.5 GPM	0.0 GPM	3.1 GPM	12.9 GPM	3.9 GPM
0 GAL	2108 GAL	0 GAL	2591 GAL	10997 GAL	3276 GAL
65 GAL	937319 GAL	13273 GAL	710752 GAL	4649497 GAL	1382276 GAL
2.72 Feet	2.04 Feet	2.35 Feet	5.02 Feet	2.55 Feet	2.45 Feet

Equalization Tank
WATER LEVEL
65.0 Inches
From the Bottom of the Tank

isplay n Layout | Display Well Levels/Flows | Display Filter Pump | Display Equalization Tank | Display Sump Pump and Air Stripper | Display Well Configuration | Display Daily Totals | Display Trend Chart | Display Hist.Trend | Display Alarm Summary | Run the Alarm Status Explorer | Run the Alarm Log Viewer

MainPlanLayout

Clear Clear A

ATTACHMENT 21
RADIO MATERIALS CORPORATION
IDEM AUGUST 13, 2014 NPDES INDUSTRIAL FACILITY INSPECTION REPORT

Attachment A

IDEM's August 19, 2014 Inspection Report

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We Protect Hoosiers and Our Environment.
100 N. Senate Avenue • Indianapolis, IN 46204
(800) 451-6027 • (317) 232-8603 • www.idem.IN.gov

Michael R. Pence
Governor

Thomas W. Easterly
Commissioner

August 19, 2014

Via Email to: sdavis@craworld.com
Mr. Steve Davis, Engineer
RMC Corp & Kraft Foods Global, INC
6520 Corporate Drive
Indianapolis, Indiana 46278

Dear Mr. Davis:

Re: Inspection Summary Letter
RMC Groundwater Remediation Project
NPDES Permit No. IN0063657
Attica, Fountain County

An inspection of the above-referenced facility or location was conducted by a representative of the Indiana Department of Environmental Management, Office of Water Quality, pursuant to IC 13-18-3-9. A summary of the inspection is provided below:

Date(s) of Inspection:	August 13, 2014
Type of Inspection:	Compliance Evaluation Inspection
Inspection Results:	No violations were observed.

IDEM recommends the permittee begin the process of registering for NetDMR. Information on NetDMR can be obtained at http://www.in.gov/idem/6765.htm.

A copy of the NPDES Industrial Facility Inspection Report is enclosed for your records. Please direct any response to this letter and any questions to Kim Rohr at 317-719-1666 or by email to KRohr@idem.IN.gov.

Sincerely,

Andy S for

Donald R. Daily, Inspections Section Chief
Compliance Branch
Office of Water Quality

Enclosure

NPDES Industrial Facility Inspection Report
INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

NPDES Permit Number:	Facility Type:		Facility Classification:	TEMPO AI ID
IN0063657	Industrial	Minor	C	

Date(s) of Inspection: August 13, 2014

Type of Inspection: Compliance Evaluation Inspection

Name and Location of Facility Inspected:			Receiving Waters/POTW:	Permit Expiration Date:
RMC Groundwater Remediation Project				7/30/2015
1095 East Summit Drive		County:	Riley Lake to Wabash River	Design Flow:
Attica	IN 47918	Fountain		NA

On Site Representative(s):

First Name	Last Name	Title	Email	Phone
Steve	Davis	Engineer	sdavis@craworld.com	317-291-7026

Was a verbal summary of the inspection given to the on-site rep? Yes

Certified Operator:	Number:	Class:	Effective Date:	Expiration Date:	Email:
Michael Johnson	3149	D	7-1-14	6-30-16	mjohnson@craworld.com

Responsible Official:		
Mr. Steve Davis, Engineer	Permittee: RMC Corp & Kraft Foods Global, INC	
6520 Corporate Drive	Email: sdavis@craworld.com	
	Phone: 317-291-7026	Contacted?
Indianapolis, Indiana 46278	Fax:	Yes

INSPECTION FINDINGS

- (●) Conditions evaluated were found to be satisfactory at the time of the inspection. (5)
- ( ) Violations were discovered but corrected during the inspection. (4)
- ( ) Potential problems were discovered or observed. (3)
- ( ) Violations were discovered and require a submittal from you and/or a follow-up inspection by IDEM. (2)
- ( ) Violations were discovered and may subject you to an appropriate enforcement response. (1)

AREAS EVALUATED DURING INSPECTION

(S = Satisfactory, M = Marginal, U = Unsatisfactory, N = Not Evaluated

S	Receiving Waters	S	Facility/Site	S	Self-Monitoring	N	Compliance Schedules
S	Effluent/Discharge	S	Operation	S	Flow Measurement		
S	Permit	S	Maintenance	N	Laboratory	S	Effluent Limits Compliance
S	Overflow/Bypass	N	Sludge	S	Records/Reports	N	Other:

DETAILED AREA EVALUATIONS

IDEM recommends the permittee begin the process of registering for NetDMR. Information on NetDMR can be obtained at http://www.in.gov/idem/6765.htm.

Receiving Waters:

S 1. The receiving stream is visibly free of excessive deposits of settled solids, floating debris, oil, scum, or billowy foam.

Comments:
The receiving stream was free of notable foam, algae or solids.

Effluent/Discharge:

S 1. Treated effluent is essentially free of excessive solids, floating debris, oil, scum, or billowy foam.

N 2. Pretreatment discharge into sanitary sewers appears free of excessive oils, grease, solids, or foam and does not appear to be in violation of the local Sewer Use Ordinance.

N 3. Pretreatment discharge into sanitary sewers does not contain materials that pass through or interfere with the operation of the POTW.

Comments:
The effluent was clear and free of color at the time of the inspection.

Permit:

S 1. Does the facility have a copy of the current permit available for reference.
N 1. If the permit expires within 180 days, has a renewal application been submitted?
S 2. Receiving waters are accurately described in the permit.
N 3. The permit has been properly transferred if there is a new owner.

Comments:
The facility has a valid permit.

Overflow/Bypass:

N 1. No unauthorized overflow/bypass events in the past 12 months.
N 2. Overflow/bypass events have been properly reported.
N 3. Any adverse impacts from overflow/bypass events have been properly mitigated.

Comments:
The facility has had no reported bypasses in the past 12 months.

Facility/Site:

N 1. The facility has standby power or equivalent provision, If required.
S 2. An adequate alarm or notification system for power or equipment failure is available for the treatment facility.
S 3. Safe and adequate access is provided for inspection of all treatment units and outfalls.
S 4. Facilities and equipment do not appear beyond their useful life.
5. List any safety concerns noted during the inspection in the box below:

Comments:
The facility has an alarm system that auto-dials the operator on call for any power or equipment failure.

Operation:

S 1. All facilities and systems necessary for achieving compliance with the terms and conditions of the permit are operated efficiently, including an anticipated bypass report for steps of treatment taken out of service.
S 2. An adequate, qualified operating staff is provided to carry out the operation of the facility, including:
   a. Certified Operator's on-site attendance and/or qualified operations personnel attendance is adequate.
   b. Adequate documentation of operational activities, including system monitoring and cleaning.
   c. Adequate funding to ensure proper operation.
N 3. Solids handling procedures are adequate.
N 4. Documentation of solids removal, handling, and disposal is adequate.

Comments:
All units of treatment appear to be operating efficiently.

Maintenance:

S 1. A maintenance record system has been established and includes maintenance/repair history and preventative maintenance plan.
S 2. Facility maintenance activities appear adequate.

Comments:
The air stripper is taken apart and cleaned twice a year. There is an inspection sheet that is followed every time the operator is present. Air pressure and water levels are recorded whenever someone is on-site.

Sludge:

N 1. Sludges, screenings, and slurries are handled and disposed of properly.

Comments:
No sludge has been produced or removed.

Self-Monitoring:

S 1. Samples are taken at pre-designated locations and are representative.
N 2. Flow-proportioned samples are obtained where needed.
S 3. The facility conducts sampling of all waste streams, including type and frequency, as required in the permit.
S 4. Sample collection procedures, including automatic sampling, include:
   a. Samples are refrigerated during compositing.
   b. Proper preservation techniques are used.
   c. Containers and holding times conform to 40 CFR 136.3.
S 5. Sample documentation is adequate and includes:
   a. Dates, times, and locations of sampling.
   b. Name of individual performing sampling.
   c. Instantaneous flow for flow-weighted aliquots.
   d. Chain of Custody records.
N 6. NPDES Permit Total Toxic Organic (TTO) requirements are being met.
N 7. NPDES Permit Whole Effluent Toxicity (WET) testing requirements are being met.

Comments:
The Self Monitoring Program was rated as satisfactory. All sampling practices are conducted accurately and at the frequency required by the permit.

Flow Measurement:

S 1. Flow is properly monitored as required by the permit.
S 2. Flow data and calibration records are available for review.

Comments:
The facility's flow measurement program, including all documentation, is adequate and representative.

Laboratory:

The following laboratory records were reviewed:

Chain-of-Custody Contract Lab Reports pH Bench Sheets

N 1. The laboratory practices and protocol reviewed were adequate, including:
   a. Written laboratory QA/QC manual.
   b. Samples are properly stored.
   c. Approved analytical methods are used.
   d. Calibration and maintenance of instruments is adequate.
   e. QA/QC procedures are adequate.
   f. Dates of analyses. (and times, where required)
   g. Name of person performing analyses.

Contract Lab Information	
Pace Analytical	Indianapolis, IN

Comments:
The facility performs pH testing on-site all other parameters are tested at Pace Analytical. Pace was not evaluated on the day of inspection.

Records/Reports:

The following records/reports were reviewed:
DMRs for the period of August 2013 to June 2014 were reviewed as part of the inspection.

S 1. All facility records for the period including the previous three years were available for review.
S 2. DMRs and MMRs are completed properly and accurately including:
   a. "No Ex" column is accurate.
   b. Signatory requirements are met.
   c. Reports are prepared by or under the direction of a certified operator.
N 3. Bypass and Noncompliance reporting are adequate.

Comments:
The requested records were available and appear complete and accurate. July 2013 records were reviewed during a previous inspection on 09/18/13.

Compliance Schedules:

N 1. The NPDES Permit Schedule of Compliance monitoring and reporting milestones have been met.

N 2. Agreed Order compliance milestones have been met.

Comments:

There is no Compliance Schedule in the current permit, and there is no Agreed Order.

Effluent Limits Compliance:

Yes 1. Were DMRs reviewed as part of the inspection?

DMRs for the period of August 2013 to June 2014 were reviewed as part of the inspection.

No 2. Were violations noted during the review of DMRs?

____ 3. Overflow/Bypass and Noncompliance reporting.

Comments:

There were no reported effluent violations for the period reviewed.

IDEM REPRESENTATIVE

Inspector Name:	Email:	Phone Number:
Kim Rohr	KRohr@idem.IN.gov	317-719-1666

IDEM MANAGER REVIEW

IDEM Manager:	Date:
Andy Schmidt	8/18/2014

ATTACHMENT 22

RADIO MATERIALS CORPORATION

MONTHLY PROGRESS REPORTS DATED SEPTEMBER 15, 2015 AND OCTOBER 15, 2015

MONTHLY STATUS REPORT
INTERIM CORRECTIVE MEASURES
RADIO MATERIALS CORPORATION RCRA FACILITY INVESTIGATION (RFI)

Report Date:	September 15, 2015
Facility Name:	Radio Materials Corporation (RMC) 1095 East Summit Street Attica, Indiana 47918 U.S. EPA # IND 005 477 021
Submitted to:	Dr. Bhooma Sundar, U.S. Environmental Protection Agency (U.S. EPA) Region 5
GHD Project #:	019190
Activity:	Vapor Intrusion Mitigation, Soil Vapor Extraction (SVE), and Groundwater Interim Corrective Measures (ICMs)
Prepared by:	Steven Wanner GHD Services Inc. (GHD)
Reporting Period:	August 1 through August 31, 2015

Significant Events and/or Activities Performed During This Reporting Period:

- Contacted residents, scheduled and completed routine vapor mitigation system inspection and maintenance at three residences

Groundwater ICMs

- Operated the Groundwater Extraction and Treatment (GWET) system continuously during the month of August 2015
- Operated the AS/SVE system continuously during the month of August 2015
- The monthly inspection and NPDES sampling for the GWET system was conducted on August 28, 2015
- Operated the AS/SVE system continuously during the month of August 2015. GHD inspected the AS/SVE system on August 13, 2015 and the system was operating normally

Soil ICMs

- Operated the SWMU 5 and 11/AOC 2 SVE system throughout August 2015. Attachment A provides records related to operation
- Inspected the WMU 5 and 11/AOC 2 SVE system and conducted SVE effluent sampling on August 13, 2015 The system was operating normally

Submittals

- Submitted the July 2015 monthly status report for ICM work to U.S. EPA on August 17, 2015
- Submitted the July 2015 Federal Discharge Monitoring Report (DMR) and State Monthly Monitoring Report (MMR) to the Indiana Department of Environmental Management (IDEM) on August 10, 2015, as required by the NPDES Permit No. IN006357

Anticipated Activities to be Performed During the Next Reporting Period (September 1 to September 30, 2015):

- Submit the August 2015 monthly ICM status report
- Submit the August DMR and MMR to IDEM and U.S. EPA
- Continue operation and OM&M of the groundwater ICMs north and south of Summit Street
- Continue operation and OM&M of the SWMUs 5 and 11 SVE system
- Semiannual blower preventive maintenance for AS/SVE and SVE systems by subcontractor

Available Analytical Data Generated During the Reporting Period:

- Table B.1 in Attachment B provides a summary of the NPDES outfall effluent analytical results from the samples collected in August 2015. All results were below the effluent limits specified in NPDES Permit No. IN006357
- Table B.2 in Attachment B provides a summary of the total influent analytical results from the samples collected in August 2015 for the HB950 Group 1 and 3 SVE wells

Information Needed/Issues to be Addressed:

- None to report

Status/Changes to Key Project Personnel:

- There were no changes to key project personnel.

In the event that clarification or further information is required, please contact Steven Wanner at (317) 291-7007.

Attachment A

August 2015 SVE OM&M Status Report

Attachment A

Monthly Soil Vapor Extraction (SVE) System Information
Radio Materials Corporation
Attica, Indiana

Month: August 2015

SVE System	Run Time During Month (hr)	Cumulative Run Time (hr)	Date Recorded
HB 1300 Blower System	0	22,660	3/1/12
HB 950 Blower System	744	44,779	9/1/15
SWMU 1/2 System	0	33,412	5/1/14

SVE System	TCE Removal Estimate During Month (lb)	PCE Removal Estimate During Month (lb)	cDCE Removal Estimate During Month (lb)
HB 1300 Blower System	0	0	0
HB 950 Blower System	3.7	0.3	1.2
SWMU 1/2 System	0	0	0
Monthly Totals	**3.7**	**0.3**	**1.2**

SVE System	Cumulative TCE Removal Estimate (ton)	Cumulative PCE Removal Estimate (ton)	Cumulative cDCE Removal Estimate (ton)
HB 1300 Blower System	3.3	0.6	0.4
HB 950 Blower System	1.4	1.9	0.5
SWMU 1/2 System	0.04	0.4	0.06
Cumulative Totals	**4.7**	**2.9**	**1.0**

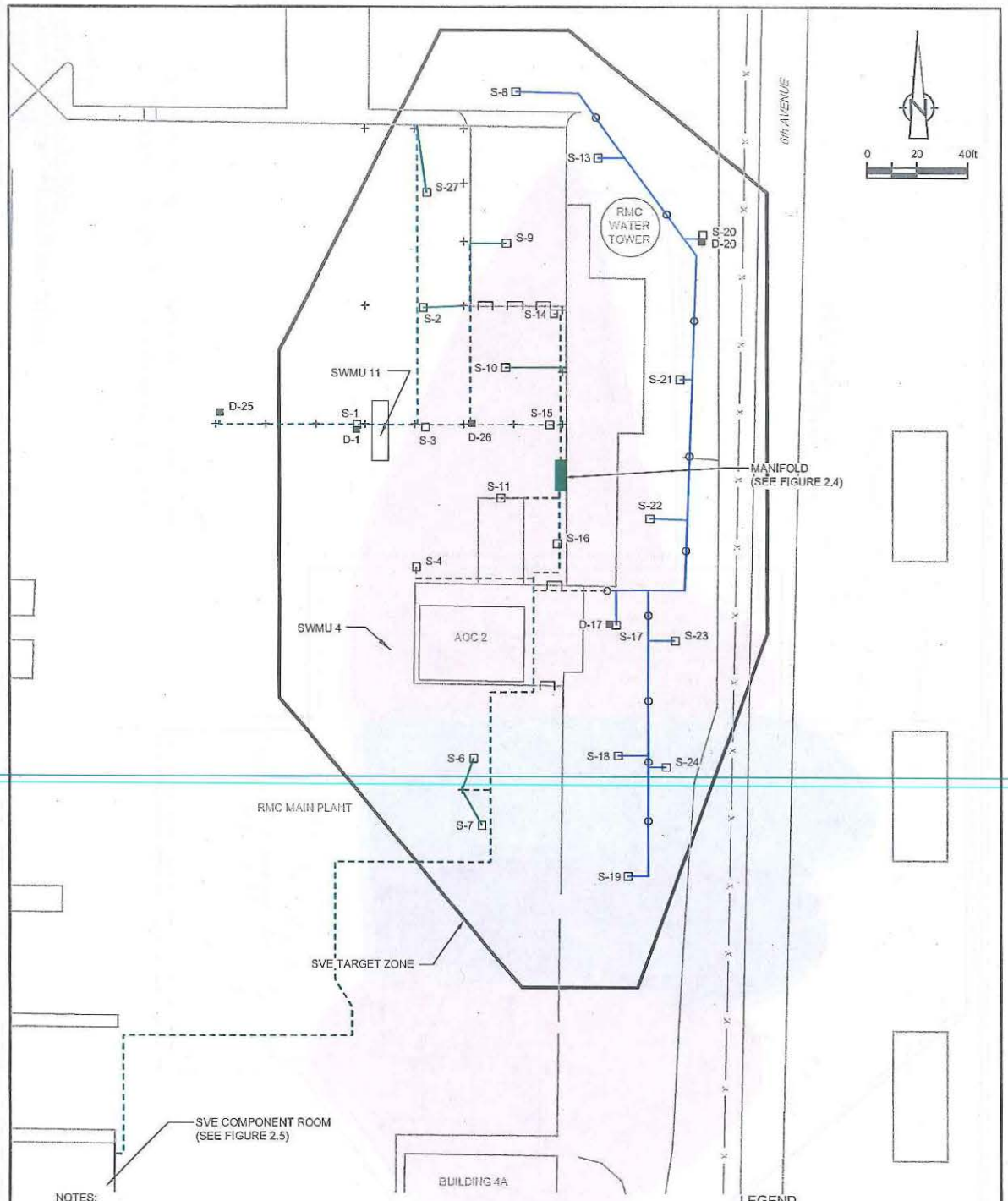
Significant Operation, Maintenance & Monitoring Activities/Notes:

1. The SWMU 1/2 System was removed from service in April 2014. The HB 1300 blower was removed from service in February 2012, and the HB 950 blower was reconfigured to service both SWMU 5 and SWMU 11.
2. From August 1st through August 13th at 11:00 am, the HB 950 Blower System was extracting from S-1, S-3, S-6, S-9, and all outdoor wells (Group 3), which are extraction wells located within SWMU 11. From August 13th at 11:00 am to August 31st, the HB 950 Blower System was extracting from S-57, S-54/S-60, S-58/S-63, S-55/S-61, S-56/S-62 (Group 1), which are extraction wells located within SWMU 5's Zone 5 (Orange). SWMU 5 is depicted on Figure 2.7, and SWMU 11 is depicted on Figure 2.2.
3. Less than 2,000 gallons of condensate/knockout water per week were discharged to the City of Attica sewer system, which complies with the City of Attica's request.
4. For the August 2015 removal estimates from the HB 950 Blower System, air analytical data from the 9/17/14, 2/13/15, and 4/1/15 sampling events were used to estimate the monthly removal of PCE, TCE, and cDCE.

PCE - Tetrachloroethene

TCE - Trichloroethene

cDCE - cis-1,2-Dichloroethene



NOTES:

1.) 23 SHALLOW WELLS WITH SINGLE PIPING RUNS INSIDE BUILDING TO MANIFOLDS AND A COMBINED PIPING RUN (i.e., 1 HEADER PIPE FOR DEEP AND SHALLOW WELLS) OUTSIDE BUILDING.

2.) 5 DEEP WELLS WITH SINGLE PIPING RUNS INSIDE BUILDING TO MANIFOLDS AND A COMBINED PIPING RUN (i.e., 1 HEADER PIPE FOR DEEP AND SHALLOW WELLS).

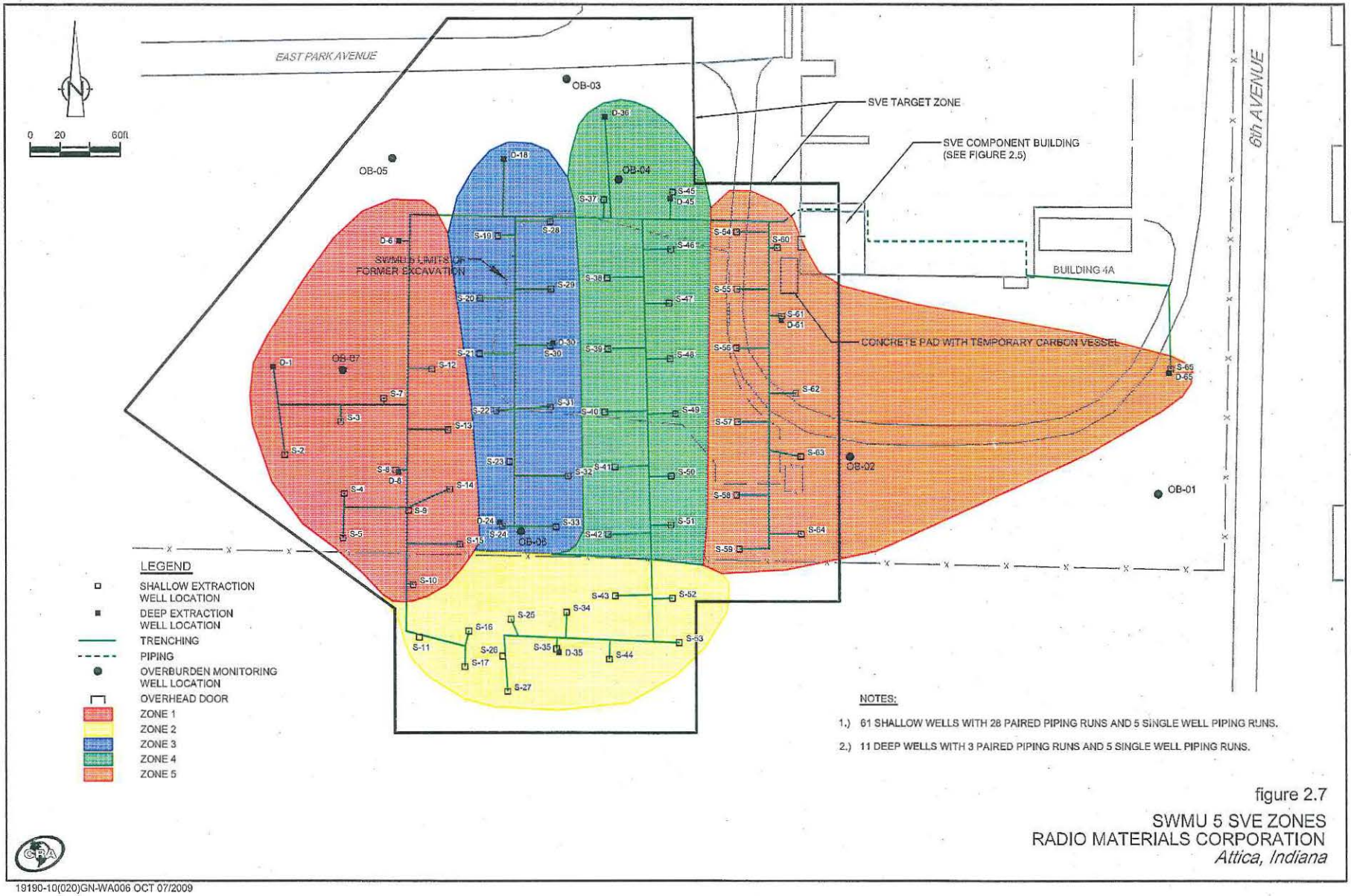
LEGEND

- SHALLOW EXTRACTION WELL LOCATION
- DEEP EXTRACTION WELL LOCATION
- CONCRETE CUTTING
- OVERHEAD PIPING
- OUTDOOR HEADER PIPING/TRENCHED
- COLUMN LOCATION (APPROXIMATE)
- OVERHEAD DOOR
- MONITORING POINTS

figure 2.2

AS-BUILT OF SVE WELLS AND TRENCHES IN SWMU 11/AOC 2
RADIO MATERIALS CORPORATION
Attica, Indiana

19190-10(020)GN-WA002 FEB 10/2010



NOTES:

1.) 61 SHALLOW WELLS WITH 28 PAIRED PIPING RUNS AND 5 SINGLE WELL PIPING RUNS.

2.) 11 DEEP WELLS WITH 3 PAIRED PIPING RUNS AND 5 SINGLE WELL PIPING RUNS.

figure 2.7

SWMU 5 SVE ZONES
RADIO MATERIALS CORPORATION
Attica, Indiana

19190-10(020)GN-WA006 OCT 07/2009

Attachment B

August 2015 Analytical Data Summary

TABLE B.1

NPDES OUTFALL
EFFLUENT ANALYTICAL RESULTS SUMMARY
RADIO MATERIALS CORPORATION
ATTICA, INDIANA

Sample Location:		**NPDES Outfall 1**
Sample ID:		**EW-082815-TP-001**
Sample Date:		**8/28/2015**
Parameters	**Units**	
Volatile Organic Compounds		
cis-1,2-Dichloroethene	ug/L	5.9
Tetrachloroethene	ug/L	ND (5.0)
Trichloroethene	ug/L	ND (5.0)
Vinyl chloride	ug/L	ND (2.0)

Notes:
ND - Not detected at the associated reporting limit
J - Estimated concentration

TABLE B.2

TOTAL INFLUENT FOR THE HB950 SVE WELLS
ANALYTICAL RESULTS SUMMARY
RADIO MATERIALS CORPORATION
ATTICA, INDIANA

Sample Location:		**HB950 Total Influent**	**HB950 Total Influent**
Sample ID:		**EA-081315-TP-001**	**EA-081315-TP-002**
Sample Date:		**8/13/2015**	**8/13/2015**
Well Grouping:		**Group 3 SVE Wells**	**Group 1 SVE Wells**
Parameters	**Units**		
Volatile Organic Compounds			
1,1-Dichloroethene	ug/m3	2.8	97.0
cis-1,2-Dichloroethene	ug/m3	1850	24700
Tetrachloroethene	ug/m3	6120	10200
trans-1,2-Dichloroethene	ug/m3	8.6	94.0
Trichloroethene	ug/m3	3060	161000
Vinyl chloride	ug/m3	24.2	ND (0.46)

Notes:
ND - Not detected at the associated reporting limit

MONTHLY STATUS REPORT
INTERIM CORRECTIVE MEASURES
RADIO MATERIALS CORPORATION RCRA FACILITY INVESTIGATION (RFI)

Report Date:	October 15, 2015
Facility Name:	Radio Materials Corporation (RMC) 1095 East Summit Street Attica, Indiana 47918 U.S. EPA # IND 005 477 021
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Reporting Period:	September 1 through September 30, 2015

Significant Events and/or Activities Performed During This Reporting Period:

- Contacted residents, scheduled and completed routine vapor mitigation system inspection and maintenance at three residences

Groundwater ICMs

- Operated the Groundwater Extraction and Treatment (GWET) system continuously during the month of September 2015, with the following exception:
  - System went down on September 19th most likely due to thunderstorms in the area. The GWET system was remotely restarted on September 22, 2015
- Operated the AS/SVE system continuously during the month of September 2015, with the following exception:
  - A system alarm was received on September 28, likely due to a power loss, which was reset on September 29, 2015
- The monthly inspection and NPDES sampling for the GWET system was conducted on September 22, 2015
- Operated the AS/SVE system continuously during the month of September 2015. GHD inspected the AS/SVE system on September 22, 2015 and the system was operating normally

Soil ICMs

- Operated the SWMU 5 and 11/AOC 2 SVE system throughout September 2015. Attachment A provides records related to operation
- Inspected the SWMU 5 and 11/AOC 2 SVE system and conducted SVE effluent sampling on September 9, 2015 The system was operating normally

Submittals

- Submitted the August 2015 monthly status report for ICM work to U.S. EPA on September 15, 2015
- Submitted the August 2015 Federal Discharge Monitoring Report (DMR) and State Monthly Monitoring Report (MMR) to the Indiana Department of Environmental Management (IDEM) on September 9, 2015, as required by the NPDES Permit No. IN006357

Anticipated Activities to be Performed During the Next Reporting Period (October 1 to October 31, 2015):

- Submit the September 2015 monthly ICM status report
- Submit the September 2015 DMR and MMR to IDEM and U.S. EPA
- Continue operation and OM&M of the groundwater ICMs north and south of Summit Street
- Continue operation and OM&M of the SWMUs 5 and 11 SVE system
- Semiannual blower preventive maintenance for AS/SVE and SVE systems by subcontractor
- Perform quarterly Rydlyme cleaning of the groundwater extraction system air stripper

Available Analytical Data Generated During the Reporting Period:

- Table B.1 in Attachment B provides a summary of the NPDES outfall effluent analytical results from the samples collected in September 2015. All results were below the effluent limits specified in NPDES Permit No. IN006357

Information Needed/Issues to be Addressed:

- Based on the SVE effluent samples recently collected in August and September 2015, it has been determined that the effluent concentration data obtained in February and April 2015 were anomalously low. This resulted in underestimation of the monthly and cumulative volatile organic compound (VOC) removal rates reported to the U.S. EPA during the period of February to August 2015. Attachment C provides the updated VOC removal estimates for this period, which were revised based on the more recent effluent data from August and September 2015. The February and April 2015 effluent data will not be used in future calculations of VOC removal rates

Status/Changes to Key Project Personnel:

- There were no changes to key project personnel.

In the event that clarification or further information is required, please contact Steven Wanner at (317) 291-7007.

Attachment A

September 2015 SVE OM&M Status Report

Attachment A

Monthly Soil Vapor Extraction (SVE) System Information
Radio Materials Corporation
Attica, Indiana

Month: September 2015

SVE System	Run Time During Month (hr)	Cumulative Run Time (hr)	Date Recorded
HB 1300 Blower System	0	22,660	3/1/12
HB 950 Blower System	474	45,253	10/1/15
SWMU 1/2 System	0	33,412	5/1/14

SVE System	TCE Removal Estimate During Month (lb)	PCE Removal Estimate During Month (lb)	cDCE Removal Estimate During Month (lb)
HB 1300 Blower System	0	0	0
HB 950 Blower System	252	22.5	40.2
SWMU 1/2 System	0	0	0
Monthly Totals	**252**	**22.5**	**40.2**

SVE System	Cumulative TCE Removal Estimate (ton)	Cumulative PCE Removal Estimate (ton)	Cumulative cDCE Removal Estimate (ton)
HB 1300 Blower System	3.3	0.6	0.4
HB 950 Blower System	1.9	1.9	0.6
SWMU 1/2 System	0.04	0.4	0.1
Cumulative Totals	**5.2**	**2.9**	**1.1**

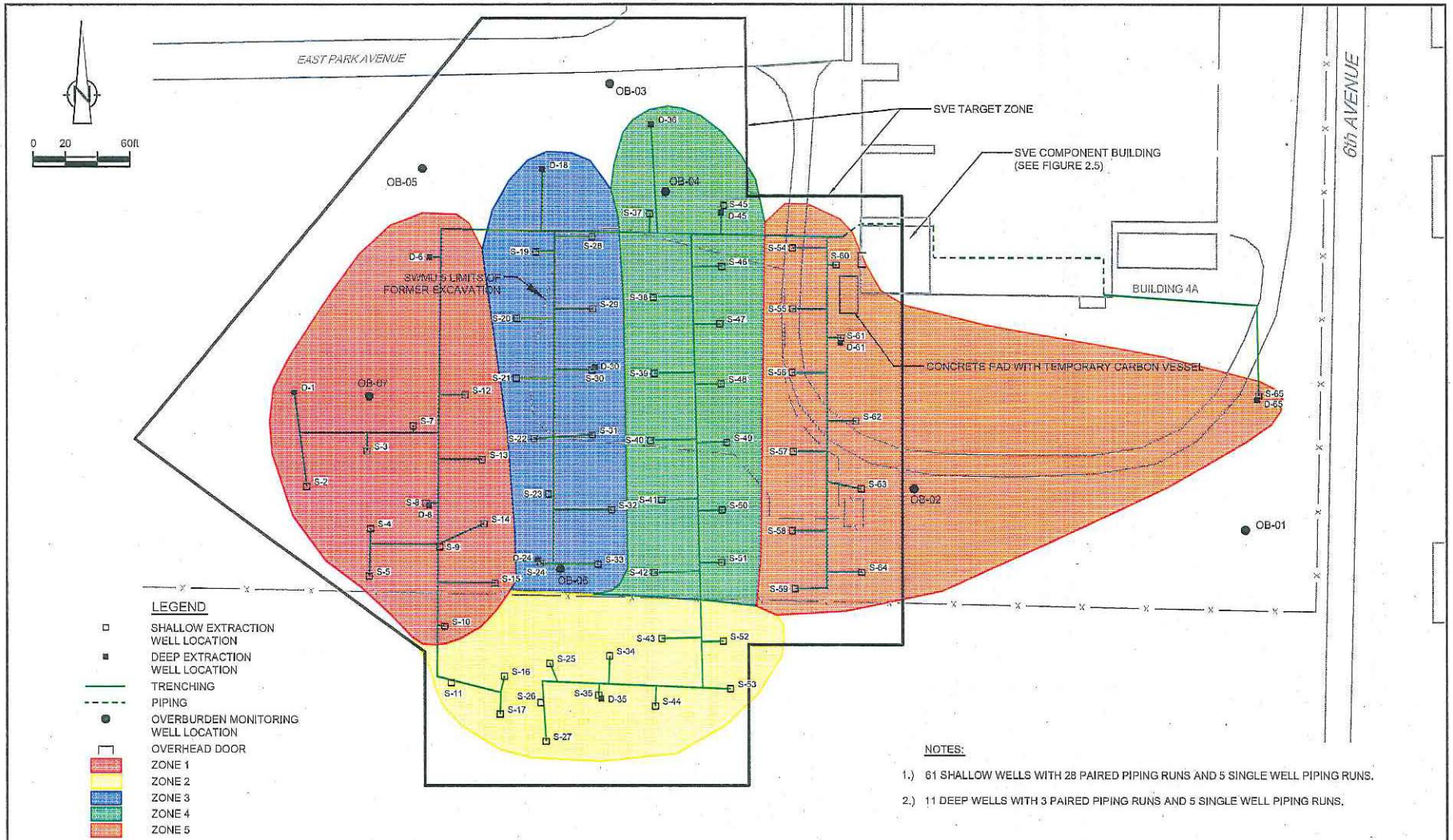
Significant Operation, Maintenance & Monitoring Activities/Notes:

1. The SWMU 1/2 System was removed from service in April 2014. The HB 1300 blower was removed from service in February 2012, and the HB 950 blower was reconfigured to service both SWMU 5 and SWMU 11.
2. From September 1st through September 9th at 10:30 am, the HB 950 Blower System was extracting from S-57, S-54/S-60, S-58/S-63, S-55/S-61, S-56/S-62 (Group 1), which are extraction wells located within SWMU 5's Zone 5 (Orange). From September 9th at 10:30 am to September 30th, the HB 950 Blower System was extracting from S-39/S-48, S-47, S-38/S-46, S-40/S-49, S-20/S-29, S-24/S-33, D-18/D-30, and D-6 (Group 2), which are extraction wells located within SWMU 5's Zone 1 (Red), Zone 3 (Blue), and Zone 4 (Green). SWMU 5 is depicted on Figure 2.7.
3. Less than 2,000 gallons of condensate/knockout water per week were discharged to the City of Attica sewer system, which complies with the City of Attica's request.
4. For the September 2015 removal estimates from the HB 950 Blower System, air analytical data from the 7/24/15 and 9/9/15 sampling events were used to estimate the monthly removal of PCE, TCE, and cDCE.

PCE - Tetrachloroethene

TCE - Trichloroethene

cDCE - cis-1,2-Dichloroethene



NOTES:

1.) 61 SHALLOW WELLS WITH 28 PAIRED PIPING RUNS AND 5 SINGLE WELL PIPING RUNS.

2.) 11 DEEP WELLS WITH 3 PAIRED PIPING RUNS AND 5 SINGLE WELL PIPING RUNS.

figure 2.7

SWMU 5 SVE ZONES
RADIO MATERIALS CORPORATION
Attica, Indiana

19190-10(020)GN-WA006 OCT 07/2009

Attachment B

September 2015 Analytical Data Summary

TABLE B.1

NPDES OUTFALL
EFFLUENT ANALYTICAL RESULTS SUMMARY
RADIO MATERIALS CORPORATION
ATTICA, INDIANA

Sample Location:		**NPDES Outfall 1**
Sample ID:		**EW-092215-SM-001**
Sample Date:		**9/22/2015**
Parameters	**Units**	
Volatile Organic Compounds		
cis-1,2-Dichloroethene	ug/L	4.3
Tetrachloroethene	ug/L	ND (1.0)
Trichloroethene	ug/L	1.5
Vinyl chloride	ug/L	ND (1.0)

Notes:
ND - Not detected at the associated reporting limit
J - Estimated concentration

Attachment C

Revised SVE OM&M System Reports

MONTHLY SOIL VAPOR EXTRACTION (SVE) SYSTEM INFORMATION
RADIO MATERIALS CORPORATION
ATTICA, INDIANA

MONTH: FEBRUARY 2015

SVE System	*Run Time During Month (hr)*	*Cumulative Run Time (hr)*	*Date Recorded*
HB 1300 Blower System	0	22,660	3/1/12
HB 950 Blower System	672	40,522	3/1/15
SWMU 1/2 System	0	33,412	5/1/14

SVE System	*TCE Removal Estimate During Month (lb)*	*PCE Removal Estimate During Month (lb)*	*cDCE Removal Estimate During Month (lb)*
HB 1300 Blower System	0	0	0
HB 950 Blower System	75.5	8.7	45.3
SWMU 1/2 System	0	0	0
Monthly Totals	**75.5**	**8.7**	**45.3**

SVE System	*Cumulative TCE Removal Estimate (ton)*	*Cumulative PCE Removal Estimate (ton)*	*Cumulative cDCE Removal Estimate (ton)*
HB 1300 Blower System	3.3	0.6	0.4
HB 950 Blower System	1.4	1.9	0.5
SWMU 1/2 System	0.04	0.4	0.06
Cumulative Totals	**4.7**	**2.9**	**1.0**

Significant Operation, Maintenance & Monitoring Activities/Notes:

1. The SWMU 1/2 System was removed from service in April 2014. The HB 1300 blower was removed from service in February 2012, and the HB 950 blower was reconfigured to service both SWMU 5 and SWMU 11.
2. From February 1st through February 13th at 1:30 pm, the HB 950 Blower System was extracting from S-57, S-54/S-60, S-58/S-63, S-55/S-61, S-56/S-62 (Group 1), which are extraction wells located within SWMU 5's Zone 5 (Orange). From February 13th at 1:30 pm through February 28th, the HB 950 Blower System was extracting from S-39/S-48, S-47, S-38/S-46, S-40/S-49, S-20/S-29, S-24/S-33, D-18/D-30, and D-6 (Group 2), which are extraction wells located within SWMU 5's Zone 1 (Red), Zone 3 (Blue), and Zone 4 (Green). SWMU 5 is depicted on Figure 2.7.
3. Less than 2,000 gallons of condensate/knockout water per week were discharged to the City of Attica sewer system, which complies with the City of Attica's request.
4. For the February 2015 removal estimates from the HB 950 Blower System, air analytical data from the 9/17/14 and 10/13/14 sampling events were used to estimate the monthly removal of PCE, TCE, and cDCE.

PCE - Tetrachloroethene

TCE - Trichloroethene

cDCE - cis-1,2-Dichloroethene

MONTHLY SOIL VAPOR EXTRACTION (SVE) SYSTEM INFORMATION
RADIO MATERIALS CORPORATION
ATTICA, INDIANA

MONTH: MARCH 2015

SVE System	*Run Time During Month (hr)*	*Cumulative Run Time (hr)*	*Date Recorded*
HB 1300 Blower System	0	22,660	3/1/12
HB 950 Blower System	742	41,264	4/1/15
SWMU 1/2 System	0	33,412	5/1/14

SVE System	*TCE Removal Estimate During Month (lb)*	*PCE Removal Estimate During Month (lb)*	*cDCE Removal Estimate During Month (lb)*
HB 1300 Blower System	0	0	0
HB 950 Blower System	46.1	10.9	15.9
SWMU 1/2 System	0	0	0
Monthly Totals	**46.1**	**10.9**	**15.9**

SVE System	*Cumulative TCE Removal Estimate (ton)*	*Cumulative PCE Removal Estimate (ton)*	*Cumulative cDCE Removal Estimate (ton)*
HB 1300 Blower System	3.3	0.6	0.4
HB 950 Blower System	1.4	1.9	0.5
SWMU 1/2 System	0.04	0.4	0.06
Cumulative Totals	**4.7**	**2.9**	**1.0**

Significant Operation, Maintenance & Monitoring Activities/Notes:

1. The SWMU 1/2 System was removed from service in April 2014. The HB 1300 blower was removed from service in February 2012, and the HB 950 blower was reconfigured to service both SWMU 5 and SWMU 11.
2. From March 1st through March 4th at 12:00 pm, the HB 950 Blower System was extracting from S-39/S-48, S-47, S-38/S-46, S-40/S-49, S-20/S-29, S-24/S-33, D-18/D-30, and D-6 (Group 2), which are extraction wells located within SWMU 5's Zone 1 (Red), Zone 3 (Blue), and Zone 4 (Green). From March 4th at 12:00 pm through March 31st, the HB 950 Blower System was extracting from S-1, S-3, S-6, S-9, and all outdoor wells (Group 3), which are extraction wells located within SWMU 11. SWMU 5 is depicted on Figure 2.7, and SWMU 11 is depicted on Figure 2.2.
3. Less than 2,000 gallons of condensate/knockout water per week were discharged to the City of Attica sewer system, which complies with the City of Attica's request.
4. For the March 2015 removal estimates from the HB 950 Blower System, air analytical data from the 10/13/14 and 11/25/14 sampling events were used to estimate the monthly removal of PCE, TCE, and cDCE.

PCE - Tetrachloroethene

TCE - Trichloroethene

cDCE - cis-1,2-Dichloroethene

MONTHLY SOIL VAPOR EXTRACTION (SVE) SYSTEM INFORMATION
RADIO MATERIALS CORPORATION
ATTICA, INDIANA

MONTH: APRIL 2015

SVE System	*Run Time During Month (hr)*	*Cumulative Run Time (hr)*	*Date Recorded*
HB 1300 Blower System	0	22,660	3/1/12
HB 950 Blower System	720	41,984	5/1/15
SWMU 1/2 System	0	33,412	5/1/14

SVE System	*TCE Removal Estimate During Month (lb)*	*PCE Removal Estimate During Month (lb)*	*cDCE Removal Estimate During Month (lb)*
HB 1300 Blower System	0	0	0
HB 950 Blower System	120	10.6	40
SWMU 1/2 System	0	0	0
Monthly Totals	**120**	**10.6**	**40**

SVE System	*Cumulative TCE Removal Estimate (ton)*	*Cumulative PCE Removal Estimate (ton)*	*Cumulative cDCE Removal Estimate (ton)*
HB 1300 Blower System	3.3	0.6	0.4
HB 950 Blower System	1.5	1.9	0.5
SWMU 1/2 System	0.04	0.4	0.06
Cumulative Totals	**4.8**	**2.9**	**1.0**

Significant Operation, Maintenance & Monitoring Activities/Notes:

1. The SWMU 1/2 System was removed from service in April 2014. The HB 1300 blower was removed from service in February 2012, and the HB 950 blower was reconfigured to service both SWMU 5 and SWMU 11.
2. From April 1st at 12:00 am through April 1st at 1:00 pm, the HB 950 Blower System was extracting from S-1, S-3, S-6, S-9, and all outdoor wells (Group 3), which are extraction wells located within SWMU 11. From April 1st at 1:00 pm through April 30th, the HB 950 Blower System was extracting from S-57, S-54/S-60, S-58/S-63, S-55/S-61, S-56/S-62 (Group 1), which are extraction wells located within SWMU 5's Zone 5 (Orange). SWMU 5 is depicted on Figure 2.7, and SWMU 11 is depicted on Figure 2.2.
3. Less than 2,000 gallons of condensate/knockout water per week were discharged to the City of Attica sewer system, which complies with the City of Attica's request.
4. For the April 2015 removal estimates from the HB 950 Blower System, air analytical data from the 9/17/14 and 11/25/14 sampling events were used to estimate the monthly removal of PCE, TCE, and cDCE.

PCE - Tetrachloroethene

TCE - Trichloroethene

cDCE - cis-1,2-Dichloroethene

MONTHLY SOIL VAPOR EXTRACTION (SVE) SYSTEM INFORMATION
RADIO MATERIALS CORPORATION
ATTICA, INDIANA

MONTH: MAY 2015

SVE System	Run Time During Month (hr)	Cumulative Run Time (hr)	Date Recorded
HB 1300 Blower System	0	22,660	3/1/12
HB 950 Blower System	703	42,687	6/1/15
SWMU 1/2 System	0	33,412	5/1/14

SVE System	TCE Removal Estimate During Month (lb)	PCE Removal Estimate During Month (lb)	cDCE Removal Estimate During Month (lb)
HB 1300 Blower System	0	0	0
HB 950 Blower System	58.2	9.2	53.3
SWMU 1/2 System	0	0	0
Monthly Totals	**58.2**	**9.2**	**53.3**

SVE System	Cumulative TCE Removal Estimate (ton)	Cumulative PCE Removal Estimate (ton)	Cumulative cDCE Removal Estimate (ton)
HB 1300 Blower System	3.3	0.6	0.4
HB 950 Blower System	1.5	1.9	0.5
SWMU 1/2 System	0.04	0.4	0.1
Cumulative Totals	**4.8**	**2.9**	**1.0**

Significant Operation, Maintenance & Monitoring Activities/Notes:

1. The SWMU 1/2 System was removed from service in April 2014. The HB 1300 blower was removed from service in February 2012, and the HB 950 blower was reconfigured to service both SWMU 5 and SWMU 11.
2. From May 1st at 12:00 am through May 1st at 11:30 am, the HB 950 Blower System was extracting from S-57, S-54/S-60, S-58/S-63, S-55/S-61, S-56/S-62(Group 1), which are extraction wells located within SWMU 5's Zone 5 (Orange). From May 1st at 11:30 am through May 29th at 12:30 pm, the HB 950 Blower System was extracting from S-39/S-48, S-47, S-38/S-46, S-40/S-49, S-20/S-29, S-24/S-33, D-18/D-30, and D-6 (Group 2), which are extraction wells located within SWMU 5's Zone 1 (Red), Zone 3 (Blue), and Zone 4 (Green). From May 29th at 12:30 pm through May 31st, the HB 950 Blower System was extracting from S-1, S-3, S-6, S-9, and all outdoor wells (Group 3), which are extraction wells located within SWMU 11. SWMU 5 is depicted on Figure 2.7, and SWMU 11 is depicted on Figure 2.2.
3. Less than 2,000 gallons of condensate/knockout water per week were discharged to the City of Attica sewer system, which complies with the City of Attica's request.
4. For the May 2015 removal estimates from the HB 950 Blower System, air analytical data from the 9/17/14, 10/13/14, and 11/25/14 sampling events were used to estimate the monthly removal of PCE, TCE, and cDCE.

PCE - Tetrachloroethene

TCE - Trichloroethene

cDCE - cis-1,2-Dichloroethene

Monthly Soil Vapor Extraction (SVE) System Information
Radio Materials Corporation
Attica, Indiana

Month: June 2015

SVE System	Run Time During Month (hr)	Cumulative Run Time (hr)	Date Recorded
HB 1300 Blower System	0	22,660	3/1/12
HB 950 Blower System	604	43,291	7/1/15
SWMU 1/2 System	0	33,412	5/1/14

SVE System	TCE Removal Estimate During Month (lb)	PCE Removal Estimate During Month (lb)	cDCE Removal Estimate During Month (lb)
HB 1300 Blower System	0	0	0
HB 950 Blower System	42.6	8.9	24.2
SWMU 1/2 System	0	0	0
Monthly Totals	**42.6**	**8.9**	**24.2**

SVE System	Cumulative TCE Removal Estimate (ton)	Cumulative PCE Removal Estimate (ton)	Cumulative cDCE Removal Estimate (ton)
HB 1300 Blower System	3.3	0.6	0.4
HB 950 Blower System	1.5	1.9	0.5
SWMU 1/2 System	0.04	0.4	0.1
Cumulative Totals	**4.8**	**2.9**	**1.0**

Significant Operation, Maintenance & Monitoring Activities/Notes:

1. The SWMU 1/2 System was removed from service in April 2014. The HB 1300 blower was removed from service in February 2012, and the HB 950 blower was reconfigured to service both SWMU 5 and SWMU 11.
2. From June 1st through June 19th at 11:30 am, the HB 950 Blower System was extracting from S-1, S-3, S-6, S-9, and all outdoor wells (Group 3), which are extraction wells located within SWMU 11. From June 19th at 11:30 am through June 30th, the HB 950 Blower System was extracting from S-39/S-48, S-47, S-38/S-46, S-40/S-49, S-20/S-29, S-24/S-33, D-18/D-30, and D-6 (Group 2), which are extraction wells located within SWMU 5's Zone 1 (Red), Zone 3 (Blue), and Zone 4 (Green). SWMU 5 is depicted on Figure 2.7, and SWMU 11 is depicted on Figure 2.2.
3. Less than 2,000 gallons of condensate/knockout water per week were discharged to the City of Attica sewer system, which complies with the City of Attica's request.
4. For the June 2015 removal estimates from the HB 950 Blower System, air analytical data from the 10/13/14 and 11/25/14 sampling events were used to estimate the monthly removal of PCE, TCE, and cDCE.

PCE - Tetrachloroethene

TCE - Trichloroethene

cDCE - cis-1,2-Dichloroethene

Monthly Soil Vapor Extraction (SVE) System Information
Radio Materials Corporation
Attica, Indiana

Month: July 2015

SVE System	Run Time During Month (hr)	Cumulative Run Time (hr)	Date Recorded
HB 1300 Blower System	0	22,660	3/1/12
HB 950 Blower System	744	44,035	8/1/15
SWMU 1/2 System	0	33,412	5/1/14

SVE System	TCE Removal Estimate During Month (lb)	PCE Removal Estimate During Month (lb)	cDCE Removal Estimate During Month (lb)
HB 1300 Blower System	0	0	0
HB 950 Blower System	416	48.6	70.1
SWMU 1/2 System	0	0	0
Monthly Totals	**416**	**48.6**	**70.1**

SVE System	Cumulative TCE Removal Estimate (ton)	Cumulative PCE Removal Estimate (ton)	Cumulative cDCE Removal Estimate (ton)
HB 1300 Blower System	3.3	0.6	0.4
HB 950 Blower System	1.7	1.9	0.6
SWMU 1/2 System	0.04	0.4	0.1
Cumulative Totals	**5.0**	**2.9**	**1.1**

Significant Operation, Maintenance & Monitoring Activities/Notes:

1. The SWMU 1/2 System was removed from service in April 2014. The HB 1300 blower was removed from service in February 2012, and the HB 950 blower was reconfigured to service both SWMU 5 and SWMU 11.
2. From July 1st through July 24th at 11:30 am, the HB 950 Blower System was extracting from S-39/S-48, S-47, S-38/S-46, S-40/S-49, S-20/S-29, S-24/S-33, D-18/D-30, and D-6 (Group 2), which are extraction wells located within SWMU 5's Zone 1 (Red), Zone 3 (Blue), and Zone 4 (Green). From July 24th at 11:30 am through July 31st, the HB 950 Blower System was extracting from S-1, S-3, S-6, S-9, and all outdoor wells (Group 3), which are extraction wells located within SWMU 11. SWMU 5 is depicted on Figure 2.7, and SWMU 11 is depicted on Figure 2.2.
3. Less than 2,000 gallons of condensate/knockout water per week were discharged to the City of Attica sewer system, which complies with the City of Attica's request.
4. For the July 2015 removal estimates from the HB 950 Blower System, air analytical data from the 7/24/15 and 8/13/15 sampling events were used to estimate the monthly removal of PCE, TCE, and cDCE.

PCE - Tetrachloroethene

TCE - Trichloroethene

cDCE - cis-1,2-Dichloroethene

Monthly Soil Vapor Extraction (SVE) System Information
Radio Materials Corporation
Attica, Indiana

Month: August 2015

SVE System	Run Time During Month (hr)	Cumulative Run Time (hr)	Date Recorded
HB 1300 Blower System	0	22,660	3/1/12
HB 950 Blower System	744	44,779	9/1/15
SWMU 1/2 System	0	33,412	5/1/14

SVE System	TCE Removal Estimate During Month (lb)	PCE Removal Estimate During Month (lb)	cDCE Removal Estimate During Month (lb)
HB 1300 Blower System	0	0	0
HB 950 Blower System	180	21.2	22.4
SWMU 1/2 System	0	0	0
Monthly Totals	**180**	**21.2**	**22.4**

SVE System	Cumulative TCE Removal Estimate (ton)	Cumulative PCE Removal Estimate (ton)	Cumulative cDCE Removal Estimate (ton)
HB 1300 Blower System	3.3	0.6	0.4
HB 950 Blower System	1.8	1.9	0.6
SWMU 1/2 System	0.04	0.4	0.1
Cumulative Totals	**5.1**	**2.9**	**1.1**

Significant Operation, Maintenance & Monitoring Activities/Notes:

1. The SWMU 1/2 System was removed from service in April 2014. The HB 1300 blower was removed from service in February 2012, and the HB 950 blower was reconfigured to service both SWMU 5 and SWMU 11.
2. From August 1st through August 13th at 11:00 am, the HB 950 Blower System was extracting from S-1, S-3, S-6, S-9, and all outdoor wells (Group 3), which are extraction wells located within SWMU 11. From August 13th at 11:00 am to August 31st, the HB 950 Blower System was extracting from S-57, S-54/S-60, S-58/S-63, S-55/S-61, S-56/S-62 (Group 1), which are extraction wells located within SWMU 5's Zone 5 (Orange). SWMU 5 is depicted on Figure 2.7, and SWMU 11 is depicted on Figure 2.2.
3. Less than 2,000 gallons of condensate/knockout water per week were discharged to the City of Attica sewer system, which complies with the City of Attica's request.
4. For the August 2015 removal estimates from the HB 950 Blower System, air analytical data from the 8/13/15 and 9/9/15 sampling events were used to estimate the monthly removal of PCE, TCE, and cDCE.

PCE - Tetrachloroethene

TCE - Trichloroethene

cDCE - cis-1,2-Dichloroethene

ATTACHMENT 23

RADIO MATERIALS CORPORATION

SPREADSHEET – SUMMARY OF INTERIM CORRECTIVE MEASURES STATUS – AUGUST 2015

SUMMARY OF ICMs STATUS - AUGUST 2015
RADIO MATERIALS CORPORATION
ATTICA, INDIANA

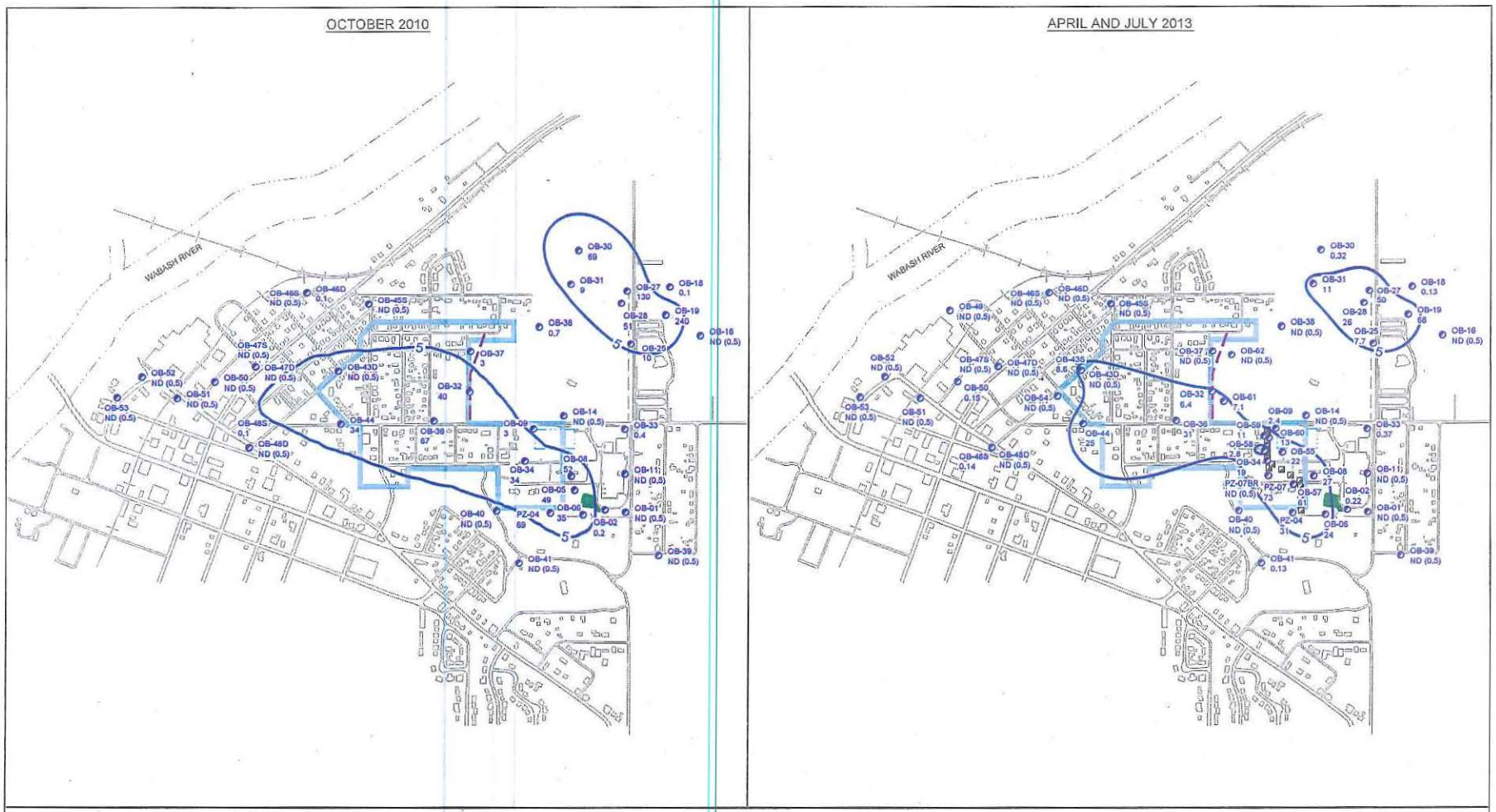
SWMU, AOC or Other	*Description*	*Media*	*COCs*	*Treatment Technology*	*Status*	*Media-Specific Goals Achieved?*	*Comments*
SWMU 1	Former Outdoor Drum Storage Area	Soil	VOCs	Excavation/SVE	Shut Down	Evaluating in CMS	ICM implemented both in SWMU 1 and 2 due to overlapping
SWMU 2	Disposal Area A	Soil	VOCs/metals	Excavation/SVE	Shut Down	Evaluating in CMS	footprints
SWMU 5	Disposal Area B	Soil	VOCs	SVE/Targeted ISCO	Ongoing	Assessing	
SWMU 11	PCE Vapor Degreaser	Soil	VOCs	SVE/Targeted ISCO	Ongoing	Assessing	Includes AOC 2 PCE UST
SWMU 12	Dynamite Burial Site	Dynamite	Dynamite	Excavation/Off-Site Incineration	Completed	Yes	
AOC 3B	North Outfall	Soil	Lead	Excavation/Off-Site Disposal	Completed	Yes	
AOC 5	On-Site Water Supply Wells	Groundwater	VOCs	Well Closures/Water Supply Hookup	Completed	Yes	Closed wells and hooked users up to City water supply
Other - City Water	Attica City Water Wells 1 and 2	Groundwater	VOCs/TCE	Air stripping	Ongoing	Yes	City water treatment system installed , OM&M ongoing
Other - Groundwater	Southern VOC Plume	Groundwater	VOCs	Air stripping/sparging	Ongoing	Assessing	

Abbreviations
SWMU - Solid Waste Management Unit
AOC - Area of Concern
VOCs - Volatile Organic Compounds
TCE - Trichloroethene
PCE - Tetrachloroethene
SVE - Soil Vapor Extraction
ISCO - In-Situ Chemical Oxidation
UST - Underground Storage Tank

ATTACHMENT 24

RADIO MATERIALS CORPORATION

FIGURES – 2010 AND 2013 TCE PLUME EXTENT (OVERBURDEN) AND 2010 AND 2013 PCE PLUME EXTENT (OVERBURDEN)



LEGEND

OB-27 ● OVERBURDEN WELL ID
50

5 ——

SWMU 5

VAPOR INTRUSION STUDY AREA

GROUNDWATER INTERIM CORRECTIVE MEASURES

AIR SPARGE / SOIL VAPOR EXTRATION SYSTEM

EXTRACTION WELL

0 500 1000ft

figure 15

2010 AND 2013 PCE PLUME EXTENT (OVERBURDEN)
RADIO MATERIALS CORPORATION
Attica, Indiana

19190-21(059)GN-WA018 MAR 4/2015