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POTENTIAL HAZARDOUS WASTE SITE PRELIMINARY ASSESSMENT
PART 1 - SITE INFORMATION AND ASSESSMENT

EPA

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
OH	D 0008/0242

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site)	02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER
RMI - Sodium Plant	State Road at East 6th St.

03 CITY	04 STATE	05 ZIP CODE	06 COUNTY	07 COUNTY CODE	08 CONG DIST
Ashtabula	OH	44004	Ashtabula	007	11

09 COORDINATES LATITUDE	LONGITUDE	
41°53'55.0"	080 46'13.3"	Quad. 7.5" - Ashtabula North

10 DIRECTIONS TO SITE (Starting from nearest public road)
Taking Interstate 11 North from Edgewood, Exit at Lake Road Going East. Take Lake to State Road South. Plant is Approx. 1/2 mile on the left.

III. RESPONSIBLE PARTIES

01 OWNER (If known)	02 STREET (Business, mailing, residential)
RMI Co.	1000 Warren Ave.

03 CITY	04 STATE	05 ZIP CODE	06 TELEPHONE NUMBER
Niles	OH	44446	(216) 652-9951

07 OPERATOR (If known and different from owner)	08 STREET (Business, mailing, residential)
RMI - Sodium Plant	Same As Site

09 CITY	10 STATE	11 ZIP CODE	12 TELEPHONE NUMBER
Same As Site			( )

13 TYPE OF OWNERSHIP (Check one)
■ A. PRIVATE ☐ B. FEDERAL: _____ (Agency name) ☐ C. STATE ☐ D. COUNTY ☐ E. MUNICIPAL
☐ F. OTHER: _____ (Specify) ☐ G. UNKNOWN

14 OWNER/OPERATOR NOTIFICATION ON FILE (Check all that apply)
☐ A. RCRA 3001 DATE RECEIVED: ___/___/___ (MONTH DAY YEAR) ■ B. UNCONTROLLED WASTE SITE (CERCLA 103 c) DATE RECEIVED: 6/5/81 (MONTH DAY YEAR) ☐ C. NONE

IV. CHARACTERIZATION OF POTENTIAL HAZARD

01 ON SITE INSPECTION
☐ YES DATE ___/___/___ (MONTH DAY YEAR)
☐ NO

BY (Check all that apply)
☐ A. EPA ☐ B. EPA CONTRACTOR ☐ C. STATE ☐ D. OTHER CONTRACTOR
☐ E. LOCAL HEALTH OFFICIAL ☐ F. OTHER: _____ (Specify)
CONTRACTOR NAME(S): _____

02 SITE STATUS (Check one)
■ A. ACTIVE ☐ B. INACTIVE ☐ C. UNKNOWN

03 YEARS OF OPERATION
1950 (BEGINNING YEAR) | Present (ENDING YEAR) ☐ UNKNOWN

04 DESCRIPTION OF SUBSTANCES POSSIBLY PRESENT, KNOWN, OR ALLEGED
Heavy metals (toxic/persistant)
Sludge (toxic/persistant)
Other organics (reactive/toxic/persistent)

EPA Region 5 Records Ctr.
322542

05 DESCRIPTION OF POTENTIAL HAZARD TO ENVIRONMENT AND/OR POPULATION
Ground water (environment/population)
Surface water (population/environment)
Air (population/environment)

V. PRIORITY ASSESSMENT

01 PRIORITY FOR INSPECTION (Check one. If high or medium is checked, complete Part 2 - Waste Information and Part 3 - Description of Hazardous Conditions and Incidents)
☐ A. HIGH (Inspection required promptly) ☐ B. MEDIUM (Inspection required) ☐ C. LOW (Inspect on time available basis) ☐ D. NONE (No further action needed, complete current disposition form)

VI. INFORMATION AVAILABLE FROM

01 CONTACT	02 OF (Agency/Organization)	03 TELEPHONE NUMBER
Gary Gifford	Ohio EPA - NEDO	(216) 425 9171

04 PERSON RESPONSIBLE FOR ASSESSMENT	05 AGENCY	06 ORGANIZATION	07 TELEPHONE NUMBER	08 DATE
Pat Petrella	US EPA	Ecology & Envir. Region II - FIT	(312) 663-9415	7/24/85 (MONTH DAY YEAR)

EPA FORM 2070-12 (7-81)

EPA

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 2 - WASTE INFORMATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
OH	D000810242

II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS

01 PHYSICAL STATES (Check all that apply)

- ■ A. SOLID
- ☐ B. POWDER, FINES
- ■ C. SLUDGE
- ☐ D. OTHER _____ (Specify)
- ☐ E. SLURRY
- ■ F. LIQUID
- ■ G. GAS

02 WASTE QUANTITY AT SITE (Measures of waste quantities must be independent)

TONS 2250
CUBIC YARDS –
NO. OF DRUMS –

03 WASTE CHARACTERISTICS (Check all that apply)

- ■ A. TOXIC
- ■ B. CORROSIVE
- ☐ C. RADIOACTIVE
- ■ D. PERSISTENT
- ☐ E. SOLUBLE
- ☐ F. INFECTIOUS
- ■ G. FLAMMABLE
- ☐ H. IGNITABLE
- ☐ I. HIGHLY VOLATILE
- ☐ J. EXPLOSIVE
- ■ K. REACTIVE
- ☐ L. INCOMPATIBLE
- ☐ M. NOT APPLICABLE

III. WASTE TYPE

CATEGORY	SUBSTANCE NAME	01 GROSS AMOUNT	02 UNIT OF MEASURE	03 COMMENTS
SLU	SLUDGE	unknown		Waste Water Treatment Sludges
OLW	OILY WASTE			Pond cleaning in Fall, 1985.
SOL	SOLVENTS			
PSD	PESTICIDES			
OCC	~~OTHER ORGANIC CHEMICALS~~ *	24,000	Pounds	Reactive Sodium (Na) Residue
IOC	* INORGANIC CHEMICALS	3.8 million	"	Barium laden Electrolytic
ACD	ACIDS	479,710	"	Cell Bath Solution
BAS	BASES			
MES	HEAVY METALS	unknown		* yearly estimates

IV. HAZARDOUS SUBSTANCES (See Appendix for most frequently cited CAS Numbers)

01 CATEGORY	02 SUBSTANCE NAME	03 CAS NUMBER	04 STORAGE/DISPOSAL METHOD	05 CONCENTRATION	06 MEASURE OF CONCENTRATION
IOC	Sodium/Calcium	7440-23-5	Previous to USEPA	unk.	→
	Residue		stoppage, RMI open		
			burned this. Is		
			burned in burn Room		
			which has No Abatement Equipment		
IOC	Chlorine	7782-50-5	Escape from Process	unk.	→
IOC	Barium Contaminated	7440-39-3	RCRA regulated.	unk.	→
	Cell Bath Waste		Pre RCRA, Material		
			buried onsite.		
ACD	Sulfuric Acid	7664-93-9	Some Recycled		
			Some treated onsite	unk.	→
SLU	Waste water Sludges	unknown	Possibly Hazardous	unk.	→
			Not tests performed.		
OCC	Hexachlorobenzene	118-74-1	HCB <1 ppb by ERG (NPDES 001 effl.)		

V. FEEDSTOCKS (See Appendix for CAS Numbers)

CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER	CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER
FDS	Brine Solution	unknown	FDS		
FDS			FDS		
FDS			FDS		
FDS			FDS		

VI. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

See Attached Sources of Info.

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POTENTIAL HAZARDOUS WASTE SITE PRELIMINARY ASSESSMENT

PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
OH	D000810242

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 ■ A. GROUNDWATER CONTAMINATION — 02 ■ OBSERVED (DATE: 3-4-81) ■ POTENTIAL ☐ ALLEGED

03 POPULATION POTENTIALLY AFFECTED: Approx 150

04 NARRATIVE DESCRIPTION

The Geology in the area is a clay, sandy clay overlaying shale. Few people on GW are on the shale formation. The Herron Report performed for RMI by Herron Consultants, found the 4 installed wells contaminated. All wells were in the clay formation. Contaminants were Barium, Misc. Organics and H.M. Heavy Metals included Lead & Zinc. CEI coal Piles & Detrex Corp. sit adjacent to RMI

01 ■ B. SURFACE WATER CONTAMINATION — 02 ■ OBSERVED (DATE: 3-28-85) ■ POTENTIAL ☐ ALLEGED

03 POPULATION POTENTIALLY AFFECTED: 15000

04 NARRATIVE DESCRIPTION

Analytical results shows contamination of Fields Brook. There is a OHDH/OEPA Fish advisory in effect for the Ashtabula River. The River is used for fishing & boating. SEE RI by CH2M Hill for Fields Brook 3/28/85. NPDES excursions & citizen complaints indicate active chlorine compounds in Fields Brook. Endangered species and wetlands are potentially within 8mi RAD.

01 ■ C. CONTAMINATION OF AIR — 02 ■ OBSERVED (DATE: May, 1985) ■ POTENTIAL ☐ ALLEGED

03 POPULATION POTENTIALLY AFFECTED: 36,000

04 NARRATIVE DESCRIPTION

Pollution abatement equipment breakdown resulted in a chlorine release from the process. Only 1 complaint was noted. Chlorine odors permeate the area but many industry in the area use Cl2 in their processing. Burning in a burn room with no abatement equipment occurs. (Sodium residue). May potentially affect Envir.

01 ☐ D. FIRE/EXPLOSIVE CONDITIONS — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED

03 POPULATION POTENTIALLY AFFECTED _____

04 NARRATIVE DESCRIPTION

None

01 ☐ E. DIRECT CONTACT — 02 ☐ OBSERVED (DATE _____) ☐ POTENTIAL ☐ ALLEGED

03 POPULATION POTENTIALLY AFFECTED _____

04 NARRATIVE DESCRIPTION

Site is fenced completely with a 24 hr. guard.

01 ■ F. CONTAMINATION OF SOIL — 02 ■ OBSERVED (DATE 10-2-81) ■ POTENTIAL ☐ ALLEGED

03 AREA POTENTIALLY AFFECTED: >25 (Acres)

04 NARRATIVE DESCRIPTION

During landfill capping, a brown material was detected bubbling up from ground. An analysis showed it to be a combination of TCE, Tetrachloroethylene and Trichloroethanes. Emissions from burning of Sodium Residue could potentially contaminate the soils in the area. (Past open burning and burn room activities)

01 ■ G. DRINKING WATER CONTAMINATION — 02 ☐ OBSERVED (DATE: _____) ■ POTENTIAL ☐ ALLEGED

03 POPULATION POTENTIALLY AFFECTED: ~150 -

04 NARRATIVE DESCRIPTION

Most people on surface water from Lake Erie. Site contamination is more than 3mi upstream from the Lake. Lake water may be proven contaminated by site contaminants. Only potential presently is for GW people.

01 ☐ H. WORKER EXPOSURE/INJURY — 02 ■ OBSERVED (DATE: May, 1985) ■ POTENTIAL ☐ ALLEGED

03 WORKERS POTENTIALLY AFFECTED: 360

04 NARRATIVE DESCRIPTION

From the chlorine release attributed to RMI, one indivional from an adjacent facility complained. Potentially others could have been affected. Also emissions from burn room (Sodium Residue) and past open burning activities could affect workers.

01 ■ I. POPULATION EXPOSURE/INJURY — 02 ☐ OBSERVED (DATE: _____) ■ POTENTIAL ☐ ALLEGED

03 POPULATION POTENTIALLY AFFECTED: 36000

04 NARRATIVE DESCRIPTION

Possible exposure from burn Room emissions and past open burning activities. Open burning ceased per USEPA Consent Agreement & Final Order

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POTENTIAL HAZARDOUS WASTE SITE PRELIMINARY ASSESSMENT

PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
OH	D 008 010 242

II. HAZARDOUS CONDITIONS AND INCIDENTS *(Continued)*

01 ■ J. DAMAGE TO FLORA — 02 ☐ OBSERVED (DATE: _____) ■ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION Citizen complaint that active chlorine compounds emanating from Fields Brook bleached plants in his yard. May have been from RMI. Also potential from Burn room emissions + past open burning activities.

01 ■ K. DAMAGE TO FAUNA — 02 ☐ OBSERVED (DATE: _____) ■ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION *(Include name(s) of species)*
OHDH/OEPA has issued a fish advisory for the Ashtabula River. Burn Room + past open burning emissions could affect fauna in area.

01 ■ L. CONTAMINATION OF FOOD CHAIN — 02 ☐ OBSERVED (DATE: _____) ■ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION
OHDH/OEPA has issued a fish advisory for the Ashtabula River. Soil contaminination may result in food contamination.

01 ☐ M. UNSTABLE CONTAINMENT OF WASTES *(Spills/runoff/standing liquids/leaking drums)* — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION
None

01 ☐ N. DAMAGE TO OFFSITE PROPERTY — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION
NONE

01 ■ O. CONTAMINATION OF SEWERS, STORM DRAINS, WWTPs — 02 ☐ OBSERVED (DATE: _____) ■ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION Damage to plants (bleaching) from fumes of active chlorine compounds from Fields Brook was reported. Potentially from RMI

01 ■ P. ILLEGAL/UNAUTHORIZED DUMPING — 02 ■ OBSERVED (DATE: Pre RCRA) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION Waste "Downs" Cell Bath contaminated with Barium Before RCRA. Reported on CERCLA Notification 103c.

05 DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR ALLEGED HAZARDS Cell Bath, analyzed Mar., 1985 showed Pb + Cd. contaminants. Potential for GW contam. of these in landfill. Clay top has been installed over landfill, 2' thick and a drainage ditch reroute to prevent water infiltration.

III. TOTAL POPULATION POTENTIALLY AFFECTED: 36,000

IV. COMMENTS
Surface waters of Fields Brook flow into the Ashtabula River. RMI NPDES outfall 001 (Recently obtained Permit (May 1985)) is monitoried for TDS. Per their "2C" form, mercury, zinc and lead were detected in the effluent. Part of this TDS may be these metals. There is potential.

V. SOURCES OF INFORMATION *(Cite specific references, e.g., state files, sample analysis, reports)*

See attached Sources of Information.

OH-0460-07

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT

RMI - SODIUM PLANT
State Road at East 6th Avenue
Ashtabula, Ohio 44004

OHD 000 810 242

RMI - Sodium utilizes spent brine solution from their Metals Reduction facility. The solution is concentrated, enriched and placed in a "Dawns" electrolytic cell. Through electrolysis, sodium chloride is transformed into metallic sodium and chlorine gas (Cl_2). The facility is approximately a 50 acre site located on State Road, 3/4 mile south of Lake Erie. It has a landfill area about 3.6 acres in size. The facility is bounded on the west by State Road and on the south by RR tracks and the Detrex Corporation. Cleveland Electric Illuminating has piles of coal stored at the east boundary. The immediate area around the facility is industrial. The closest population is East Ashtabula, Ohio, approximately 3/4 mile west of the site. The site is fenced and has a 24 hour guard. The geology of the site is a clay, sandyclay formation overlying shale.

The RMI - Sodium Plant is a RCRA permitted facility. Hazardous wastes generated include sulfuric acid, spent cell bath (contaminated with Ba) and metallic sodium/calcium residue. Sulfuric acid that is not recycled is neutralized in the on-site wastewater treatment system. Prior to August 10, 1983, the sodium residue was open burned on a concrete pad and in a burn room having no pollution abatement equipment. Following a consent agreement and Final Order from U.S. EPA, open burning ceased. The burn room incineration continued while a second burn room is being fitted for pollution equipment. When operational, the 2nd burn room will be used solely for residue destruction.

Process wastewaters are treated in settling ponds following neutralization and catalytic destruction of hypochlorite in the waste stream. This treatment was implemented because of numerous complaints about, and NPDES excursions for, discharge of high levels of Total Residual Clorine (TRC) to Fields Brook (via a storm sewer along State Road). RMI is in the process of installing a bisulfite reduction system to further reduce TRC in the effluent. The system is expected to be complete in 1985. Known process water is also discharged from NPDES outfall 001 following settling. RMI recently received a final NPDES permit (May, 1985).

The landfill area received waste cell bath from 1950 to 1980. Although listed as D005, a Barium waste, recent analyses show that the cell bath also contains lead and cadmium. The area has a closure plan and has been capped with 2' of clay. A drainage ditch which transversed the site was rerouted west to reduce the potential for water infiltration into the landfill. A ground water study, performed by Herron & Associates, included installation of 4 wells on-site. Sample analyses of well water indicated contamination of the upper clay formation (approx. 30') with Ba, Zinc, and lead. During the capping and rerouting activities on the landfill, a leachate seep was found next to the RR tracks at the south end of the plant. An analysis revealed TCE, tetrachloroethylene and Trichlorethane contaminants in the leachate. Runoff from the CEI coal pile area, east of the plant and RMI, is directed toward Fields Brook via the rerouted drainage ditch. A potential exists for contamination infiltration from outside sources into the RMI facility landfill area.

Because of the following, a low priority for FIT Activity for this site is recommended:

1. Minimal number of people on ground water.

2. Surface drinking water source is more than 3 stream miles from the site.

3. Air contamination problems are being corrected.

4. Fields Brook is the subject of an ongoing NPL Project, including RI work performed by CH_2M Hill.

5. OEPA and ODH have issued a fish advisory for the Ashtabula River.

6. Poor permeability for local soils and underlying geology.

Preliminary Assessment

RMI - Sodium Plant
State Road at East 6th Ave.
Ashtabula, Ohio 44004
OHD 000 810242

RMI - Sodium utilizes spent Brine solution from their Metals Reduction facility. The solution is concentrated, enriched and placed in a "Downs" electrolytic Cell. Through electrolysis, Sodium chloride is transformed into Metallic sodium and chlorine gas (Cl_2). The facility is approx. a 50 Acre site located on State Road, 3/4 mi. South of Lake Erie. It has a landfill area about 3.6 acre in size. The facility is bounded on the West by State Road and on the South by RR tracks and the Detrex Corp. Cleveland Electric Illuminating has piles of coal stored at the east boundry. The immediate area around the facility is industrial. The closest population is East Ashtabula, Ohio, Approx. 3/4 mi West of the site. The site is fenced and has a 24 hr. guard. The geology of the site is A clay, sandy clay formation overlying shale.

The RMI - Sodium Plant is a RCRA permitted facility. Hazardous wastes generated include sulfuric acid, spent cell bath (contaminated with BA) and metallic Sodium/calcium residue. Sulfuric acid that isn't recycled is neutralized in the onsite wastewater treatment system. Prior to 8-10-83, the Sodium residue was open burned on a concrete pad and in a burn room having no pollution abatement equipment. Following consent agreement + Final order from USEPA, open

burning ceased. The burn room incineration continues while a second burn room is being fitted for pollution equipment. When operational, the 2ND burn room will be used solely for residue destruction

Process waste water are treated in settling ponds following neutralization and catalytic destruction of hypochlorite in the waste stream. This treatment was implemented because of numerous complaints about and NPDES excursions for discharge of high levels of TOTAL Residual Chlorine (TRC) to Fields Brook (VIA a STORM SEWER ALONG STATE ROAD.) RMI is in the process of installing a bisulfite reduction system to further reduce TRC in the effluent. The system is expected to be complete in 1985. No process water is also discharged from NPDES outfall 001 following settling. RMI recently received a final NPDES permit (MAY 1985)

The landfill area received waste cell bath from 1950 to 1980. Although listed as D005, a Barium waste, recent analyses show that the cell bath also contains lead and cadmium. The area has a closure plan and been capped with 2' of clay. A drainage ditch which traversed the site was rerouted west to reduce the potential for water infiltration into the landfill. A GROUND WATER study, performed by HERRAN & ASSOCIATES, includ installation of 4 wells onsite. Sample analyses. of well water INDICATED contamination of the upper clay formation (APPROX 30') with BA, ZINC AND LEAD. During

the capping and reseeding activities on the landfill, a leachate seep was found next to the RR tracks at the south end of the plant. An analysis revealed TCE, tetrachloroethylene and Trichloroethane contamination in the leachate. Runoff from CEI coal piles, east of the plant, and RMI is directed toward Fields Brook via the reseeded drainage ditch. A potential exists for contamination infiltration from outside sources into the RMI facility landfill area.

Because of the following, I recommend a low Priority for FIT Activity for this site:

1. Minimal No. of people on groundwater.
2. Surface Drinking water source is more than 3 stream miles from the site.
3. Air contamination problems are being corrected
4. Fields Brook is the subject of an ongoing NPL Project, including RI work performed by CH2M Hill.
5. OEPA & OHDH have issued a Fish Advisory for the Ashtabula River.
6. Poor permeability for local soils and underlying Geology.

REGION V FIT - PA DOCUMENTATION PACKAGE

SITE NAME RMI-Sodium Plant AKA(s) Reactive Metals Inc.

ADDRESS State Road at East 6th St.

CITY Astabula STATE Ohio ZIP 44004 COUNTY Ashtabula.

USEPA IDENTIFICATION NUMBER OHD000810242 Co. Code. 007 Cong. Dist. 11

DOES THE FACILITY HAVE A RCRA PERMIT YES X NO ___ UNKNOWN ___

IF THE FACILITY HAS A RCRA PERMIT, DOES IT COVER ALL EXISTING AND FORMER WASTE STORAGE, TRANSPORT, AND/OR DISPOSAL ACTIVITIES AT THE FACILITY YES ___ NO X UNKNOWN ___

IF NO, DESCRIBE WHAT AREAS ARE NOT COVERED Buried Waste (D005) BaSO4 in the form of Spent Electrolytic Bath (Pre RCRA) (Cmb Notes.)

POTENTIAL SOURCES OF INFORMATION

	USED	NOT USEFUL	NOT AVAILABLE
1) STATE HAZARDOUS/SOLID WASTE FILES	X		
2) STATE WATER FILES	X		
3) STATE AIR FILES		X	X Confid.
4) STATE DEPARTMENT OF HEALTH	X		
5) STATE GEOLOGICAL SURVEY	X		
6) STATE DEPARTMENT OF NATURAL RESOURCES		X	
7) STATE FIRE MARSHALL		X	
8) COUNTY DEPARTMENT OF HEALTH		X	
9) COUNTY ENGINEER	X		
10) COUNTY CLERK/RECORDER OF DEEDS		X	
11) CITY DEPARTMENT OF HEALTH		X	
12) CITY ENGINEER		X	
13) CITY FIRE DEPARTMENT/FIRE MARSHALL	X		
14) CITY WATER/SEWER DEPARTMENT		X	
15) U.S. SOIL CONSERVATION SERVICE	X		
16) OTHERS			
Water System Files - OEPA	X		
Interviews with Ohio EPA NEDO	X		
List of Endang. Species Fed's	X		

FIT PREPARER Pat Petrella DATE 7-24-85

III. WASTE TYPE

CATEGORY	SUBSTANCE NAME	01 GROSS AMOUNT	02 UNIT OF MEASURE	03 COMMENTS	SOURCES
SLU *	SLUDGE	unknown		From Dredging of Waste	
OLW	OILY WASTE			water ponds + WWTP	6, 10, 2, 12
SOL	SOLVENTS			(Some recycled)	
PSD	PESTICIDES				
OCC *	~~OTHER ORGANIC~~ CHEMICALS	24000	Pounds	Reactive NA/Ca Residue Open burned	Burn Room
IOC *	INORGANIC CHEMICALS	3.8 million	Pounds	Ba laden NA-Cl_2 "Downs"	
ACD	~~ACIDS~~ (H_2SO_4)	479,710	"	Cell waste Bath solution.	
BAS	BASES	Acid Recycled		(Buried until RCRA regulated)	
MES	HEAVY METALS	+ Some Neutral. onsite		* YEARLY ESTIMATES	

IV. HAZARDOUS SUBSTANCES (See Appendix for most frequently cited CAS Numbers)

01 CATEGORY	02 SUBSTANCE NAME	03 CAS NUMBER	04 STORAGE/DISPOSAL METHOD	05 CONCENTRATION	06 MEASURE OF CONCENTRATION	SOURCES
IOC	Sodium Calcium Process		Burned in burn Room	unk		
	Residue (Reactive		(Presently trying			4, 6, 10, 2, 12
			to permit an Incin-			
			erator with effective			
			Air pollution Equipment			
						4, 6, 10, 2
IOC	Barium contaminated		RCRA regulated	unk.		
	Cell Bath		Pre RCRA - buried			
			onsite in 2 areas.			
ACD	Sulfuric Acid		Some recycled			
			And rest neutralized			
			onsite			
SLU	Wastewater Pond		May be haz. -			
	sludge		No record of EP Toxic			
OCC	Hexachlorobenzene		tests. Dredging to be done 1985.		HCB in < 1.2 ppb by ERG effluent (001)	5

V. FEEDSTOCKS (See Appendix for CAS Numbers)

CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER	CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER	SOURCES
FDS	Brine Solution		FDS			11
FDS	~~Carbon Electrodes~~		FDS			
FDS			FDS			
FDS			FDS			

WASTE CALCULATION PAGE

A) GROUNDWATER CONTAMINATION

A.1 MONITORING WELLS YES X NO ____ UNKNOWN ____ NUMBER OF WELLS 4

A.2 MONITORING WELLS CONTAMINATED YES X NO ____ UNKNOWN ____

A.3 PRIVATE, PUBLIC, AND/OR COMMERCIAL WELLS CONTAMINATED YES ____ NO ____ No Documentat

A.4 TYPE(S) OF CONTAMINATION Contaminated with BA + heavy Metals many organics ie TCE, + volatiles. Site next to Detrex + Coal pile (CEI) Suspect GW cont. from them. HERRON Rept. (Low GW Targets)

Re route stream through prop.

A.5 BACKGROUND WELL AVAILABLE YES X NO ____ UNKNOWN ____ Wells have been Plugged.

A.6 IF NO RECORDED CONTAMINATION, IS THERE A POTENTIAL YES X NO ____

WHY? ____

A.7 GROUNDWATER USED FOR DRINKING WATER YES X NO ____ Low population → 40 serv. on GW.

A.8 DISTANCE TO NEAREST WELL 2mi ~~FEET~~

A.9 ESTIMATE OF THE POPULATION ON GROUNDWATER IN A THREE MILE RADIUS OF THE SITE

40 services x 3.8 = 150

A.10 TYPES OF AQUIFERS

TYPE	THICKNESS	DEPTH	AQUIFER OF CONCERN	CONTAMINATED
Clay + Sandy Clay	Approx 50'	Surface	NO	yes per Herron Rept - No body on system
over Shale	200'-1400'	Approx. 50'	Shale formation <39 ppm	No evidence Potential low

A.11 DOES SITE GEOLOGY PREVENT THE MIGRATION OF CONTAMINANTS TO UNDERLYING AQUIFERS YES X NO ____ UNKNOWN ____ IF YES, WHY Shale in area is poor Aquifer. Clay overlain also prevents percolation. Shale is 200'-1400' thick.

A.12 DOES THE CONTAINMENT PROCEDURES UTILIZED AT THE FACILITY PREVENT THE MIGRATION OF CONTAMINANTS TO UNDERLYING AQUIFERS YES ____ NO X UNKNOWN ____

IF YES, WHY No containment except natural geol. conditions.

SOURCES: 11, 18, 20, 24, 23, 15, 17, ____, ____, ____, ____

B) SURFACE WATER CONTAMINATION

B.1 TYPE OF NEARBY SURFACE WATER(S):

CREEK ____, STREAM X, AND/OR RIVER X (CONTINUOUSLY FLOWING)

POND ____, LAKE X, AND/OR SWAMP/MARSH X

B.2 DISTANCE TO THE NEAREST SURFACE WATER 100 FEET

B.3 DOES SURFACE TOPOGRAPHY PREVENT THE MIGRATION OF CONTAMINANTS TO THE SURFACE WATER(S) YES ____ NO X. IF YES, WHY NPDES outfall 001 discharges into fields brook. Runoff is in Southerly direction towards property Ditch. at RR tracks bet. Detrex + RMI → Ditch leads to DS Tributary + to Fields Brook.

B.4 USAGE OF SURFACE WATER

DRINKING WATER YES X NO ____ UNKNOWN ____

IRRIGATION YES ____ NO X UNKNOWN ____ from Private ponds - No SW Public.

RECREATION YES X NO ____ UNKNOWN ____

Potential - Lake Erie + Ashtabula River.

Effluent Problem with HOCl + TDS (TDS may have metals (see 2c form))

B) SURFACE WATER CONTAMINATION (CONTINUED)

B.5 SURFACE WATER CONTAMINATED YES X NO ____ UNKNOWN ____

B.6 TYPE(S) OF CONTAMINATION AND DATE Misc chlorinated Hydrocarbons, AND Solvents as well as metals. See RI by CH2M Hill on Fields Brook. Problem in Past w/ Chlorine + TDS discharge

B.7 IF NO RECORDED CONTAMINATION, IS THERE A POTENTIAL YES ____ NO ____

WHY? ~~NPDES Permit Exceedance for~~ Potential for HCB low conc.

B.8 DISTANCE TO NEAREST DRINKING WATER INTAKE WITHIN THREE MILES: None MILE(S)

B.9 ESTIMATE OF POPULATION USING SURFACE WATER 30,000, INTAKES WITHIN THREE MILES OF THE SITE.

B.10 IS THERE A WILDLIFE PRESERVE (5 ACRE MINIMUM) WHICH COULD BE CONTAMINATED YES X NO ____

B.11 ARE THERE FEDERALLY ENDANGERED SPECIES PRESENT YES X NO ____ UNKNOWN ____ Potential

SOURCES: 8, 11, 16, 27, 1, 5, 14, ~~26~~ 17, 19, 21, 22

26

C) CONTAMINATION OF AIR

C.1 CITIZEN COMPLAINTS YES X NO ____ DATE(S) May 1985 NATURE OF COMPLAINT 1/2 odor from RMI plant. RMI admitted problems with caustic scrubber. Damage to Scrubber need Repair

C.2 AIR PROBLEMS AS CONFIRMED BY LOCAL, STATE, AND/OR FEDERAL INVESTIGATORS YES ____ NO X DATE(S) ____ DESCRIPTION OF EVENT AND METHODOLOGY USED None Documented.

C.3 IF NO CONFIRMED RELEASES, IS THERE A POTENTIAL YES X NO ____. IF YES, WHY Open burning of Na/Ca Residue - Attempting for Permit an incineration - ASEPA Consent ORDER - to Quit

C.4 ESIMATE OF POPULATION WITHIN A FOUR MILE RADIUS 36,000

SOURCES: 3, 4, 13, 25, ____, ____, ____, ____

1/2 complaints in area - Not totally attributable to RMI

D) FIRE/EXPLOSIVE CONDITIONS

D.1 HAS A STATE AND/OR LOCAL FIRE MARSHAL CERTIFIED THAT THE SITE IS A FIRE HAZARD OR PRESENTS A EXPLOSION THREAT YES ____ NO X DATE ____ AGENCY ____ DESCRIPTION OF EVENT ____

D.2 INCOMPATIBLE WASTES PRESENT YES ____ NO X UNKNOWN ____

D.3 IGNITABLE WASTES PRESENT YES X NO ____ UNKNOWN ____

D.4 IF NO CONFIRMED THREAT, IS THERE A POTENTIAL THREAT YES X NO ____ UNKNOWN ____ NATURE OF THE POTENTIAL THREAT Only slight since Na/Ca Residue is ignitable.

D.5 DISTANCE TO NEAREST POPULATION 1100 FEET

D.6 ESTIMATE OF POPULATION WITHIN TWO MILES 12,100

D.7 DISTANCE TO NEAREST BUILDING 100 FEET

SOURCES: ____, ____, ____, ____, ____, ____, ____, ____

E) DIRECT CONTACT

E.1 IS SITE ACCESS RESTRICTED RESTRICTED TO NON-FACILITY PERSONNEL YES X NO ___ UNKNOWN ___ IF YES, METHOD 24 hr guard + fence. per S. Tuchman.

E.2 HAVE AND/OR CAN NON-FACILITY PERSONNEL COME EASILY INTO CONTACT WITH HAZARDOUS MATERIAL AT THE FACILITY YES ___ NO X IF YES, HOW as long as all is working well. If major release of Cl_2 - contact is possible.

E.3 ARE WASTES PROPERLY CONTAINED AT THE FACILITY YES X NO ___ UNKNOWN (RCRA)

E.4 ESTIMATE OF THE NUMBER OF INDIVIDUALS WITHIN ONE MILE OF THE FACILITY 3000

E.5 AS A RESULT OF RECREATIONAL ACTIVITIES, IS DIRECT CONTACT POSSIBLE YES ___ NO X UNKNOWN ___

SOURCES: 17, ___, ___, ___, ___, ___, ___

F) CONTAMINATION OF SOIL

F.1 ANALYTICAL DATA YES X NO ___ IF YES, DATE AND TYPE OF CONTAMINATION TCE, Tetrachloroethylene + Trichloroethane, (10-2-81)

F.2 PHOTOGRAPHIC EVIDENCE TO INDICATE CONTAMINATION YES X NO ___ IF YES, DATE AND DESCRIPTION 10-2-81 Samples taken at tracks separately site from Detrex. Material bubbling up from ground.

F.3 IF NO TO F.1 AND F.2, IS THERE A POTENTIAL YES X NO ___ UNKNOWN ___ IF YES, DESCRIBE BA contamination from from Buried wastes. Possible Heavy metals. Ba (DOOS)

F.4 AREA AFFECTED OR POTENTIALLY AFFECTED 15 ACRE(S) ~~Approx.~~ ~~Landfill~~ site Acreage - Possibly more if contam. from other sources. Hard to tell.

SOURCES: 2, 3, 4, 13, ___, ___, ___

G) DRINKING WATER CONTAMINATION

SEE SECTIONS A AND B

G.1 TOTAL POPULATION POTENTIALLY AFFECTED 150 (NOT DOUBLE COUNTED)

only GW people - SW Route to Lake > 3 mi downstream ~~[illegible]~~ RI on Fields Brook / no conclusions as to who responsible for what.

SOURCES: SEE SECTIONS A AND B

H) WORKER EXPOSURE/INJURY

H.1 DO SITE CONDITIONS THREATEN FACILITY WORKER AND/OR WORKERS AT ADJACENT FACILITIES YES X NO ___ UNKNOWN ___ IF YES, DESCRIBE Burn room has no Abatement facilities. Past Open burning could cause exposure.

H.2 HAS THERE BEEN DOCUMENTED PROBLEMS YES X NO ___ UNKNOWN ___ IF YES, DESCRIBE 1 situation - Cl_2 leak due to malfunction of scrubber - 1 complaint from Adjacent Facility personnel.

H.3 ESTIMATE OF WORKER POPULATION AFFECTED OR POTENTIALLY AFFECTED 360

SOURCES: 3, 4, 13, ___, ___, ___, ___

$0.023\ mi^2 \frac{640\ Ac}{mi^2}$

≈ 15

Area of soil cont. Site - $\frac{1}{2}'' \times \frac{5}{16}''$

$0.19\ mi \times 0.12\ mi = 0.023\ mi^2$

I) POPULATION EXPOSURE/INJURY

I.1 DO SITE CONDITIONS THREATEN NEARBY POPULATION YES ____ NO ____ UNKNOWN ____
IF YES, DESCRIBE (INCLUDE DATES OF EXPOSURE) Potential exists from burn room (NA/Ca residue) since it has no abatement equipment. also Cell room has no abatement equipment. Cl_2 source during processing (Potential)

I.2 AS A RESULT OF RECREATIONAL ACTIVITIES, IS POPULATION EXPOSURE/INJURY POSSIBLE
YES ____ NO X UNKNOWN ____ IF YES, DESCRIBE ____

I.3 POPULATION AFFECTED OR POTENTIALLY AFFECTED - SAME AS TOTAL POPULATION EXPOSED 360

SOURCES: 3, 4, 13, ____, ____, ____, ____

J) DAMAGE TO FLORA

J.1 OBSERVED OCCURRENCES OF DAMAGE YES X NO ____ UNKNOWN ____ IF YES, DATE AND EXTENT OF DAMAGE Citizen Complaint of Bleaching of Garden Plants due to Chlorine compounds from Fields Brook.

J.2 IF NO OR UNKNOWN IN J.1, IS THERE A POTENTIAL FOR SUCH AN OCCURRENCE YES X NO ____ UNKNOWN ____ IF YES, DESCRIBE POTENTIAL Potential from burn room emission to ornamental plants. NPDES Discharge excursion of Chlorine Damage plants. also Air emissions.

SOURCES: 3, 4, 7, 13, ____, ____, ____

K) DAMAGE TO FAUNA

K.1 OBSERVED OCCURRENCES OF DAMAGE YES ____ NO X UNKNOWN ____ IF YES, DATE AND EXTENT OF DAMAGE ____

K.2 IF NO OR UNKNOWN TO K.1, IS THERE A POTENTIAL FOR SUCH AN OCCURRENCE YES X NO ____ UNKNOWN ____ IF YES, DESCRIBE POTENTIAL Damage from Burn room emission to contaminate Wildlife. Cl_2 release from NPDES ~~excursion~~ of Chlorine compounds to stream. Animal Drink from stream.

SOURCES: 3, 4, 13, ____, ____, ____, ____
also OHDH/OEPA fish Advisory in effect for Ashtabula River.

L) CONTAMINATION OF FOOD CHAIN

L.1 HAVE GRAIN CROPS BEEN IMPACTED YES ____ NO ____ UNKNOWN X

L.2 HAVE LIVESTOCK (CATTLE, CHICKENS, etc.) BEEN IMPACTED YES ____ NO X UNKNOWN ____ None Agricultural area.

L.3 IF YES TO L.1 AND/OR L.2, DESCRIBE IMPACT AND GIVE DATE ____

L.4 IF NO TO L.1 AND/OR L.2, IS THERE A POTENTIAL YES X NO ____ UNKNOWN ____
IF YES, DESCRIBE If emissions from PAST open burning or burn Room emissions deposit on Plants.

SOURCES: 3, 4, ____, ____, ____, ____, ____

OHDH/OEPA fish Advisory in effect for Ashtabula River.
Per Gifford

M) UNSTABLE CONTAINMENT OF WASTES

M.1 ARE WASTE STORAGE AND/OR DISPOSAL PRACTICES AT THE FACILITY ADEQUATE YES ____ NO X UNKNOWN ____ IF NO, DESCRIBE NATURE OF THE PROBLEM(S) ____

M.2 IF YES OR UNKNOWN TO M.1, DESCRIBE ANY POTENTIAL PROBLEM(S) ____

SEE ALL PREVIOUS SECTIONS, USE MAXIMUM POPULATION THAT IS NOT DOUBLE COUNTED

SOURCES: ____, ____, ____, ____, ____, ____, ____

N) DAMAGE TO OFFSITE PROPERTY

N.1 HAVE OFFSITE PROPERTIES BEEN DAMAGED BY SITE ACTIVITES YES ____ NO X UNKNOWN ____ IF YES, GIVE DATE(S) AND DESCRIBE EVENT(S) ____

SEE ALL PREVIOUS SECTIONS

SOURCES: ____, ____, ____, ____, ____, ____, ____

O) CONTAMINATION OF SEWERS, STORM DRAINS, WWTPs

O.1 DOCUMENTED DAMAGE TO INFRASTRUCTURE YES ____ NO X UNKNOWN ____ IF YES, GIVE DATE(S) AND DESCRIBE EVENT(S) ____

O.2 IF NO OR UNKNOWN TO O.1, DESCRIBE ANY POTENTIAL PROBLEMS Effluent from plant at NPDES outfall 001 discharges to Field Brook via storm drain along State Road, Excursions of TDS + chlorine compounds called contaminants. TDS may have Metals, ie Zn, Ag, Pb

SOURCES: 16, 8, 28, 21, ____, ____, ____

P) ILLEGAL/UNAUTHORIZED DUMPING

P.1 HAVE THERE BEEN EPISODES OF ILLEGAL, UNAUTHORIZED, AND/OR MIDNIGHT DUMPING AT THE FACILITY YES X NO ____ UNKNOWN ____ IF YES, GIVE DATE(S) AND DESCRIBE EVENT(S) Landfill of Ba contaminated Wastes Cell Baths. Pre RCRA

P.2 HAS THE FACILITY RECEIVED HAZARDOUS WASTES WITHOUT A PROPER LOCAL, STATE, AND/OR FEDERAL PERMITS WHEN SUCH PERMITS WOULD HAVE NORMALLY BEEN REQUIRED YES ____ NO X UNKNOWN ____ IF YES, GIVE DATE(S) AND DESCRIBE EVENT(S) ____

P.3 WOULD SITE SITE SECURITY PROMOTE UNAUTHORIZED DUMPING YES ____ NO X UNKNOWN ____ IF POSSIBLE, DESCRIBE ____

SOURCES: 2, 9, 15, ____, ____, ____, ____

RECOMMENDED ACTIONS Refrain from Recommendation per G. Gifford.

COMMENTS Found that as recent as Mar 1985 – All Bath contain Pb + Cd. by analysis.

PA DOCUMENTATION SHEET

SITE RMI - Sodium Plant
IDENTIFICATION NUMBER OHD000810242

SOURCE NUMBER	DESCRIPTION OF SOURCE
1A, 1B, 1C, 1D	1A) QUAD NAME Ashtabula-N SIZE: (7.5) or 15 YEAR 1960 P.R.-1970 1B) QUAD NAME Ashtabula-S SIZE: (7.5) or 15 YEAR 1960 P.R.-1970 1C) QUAD NAME Gageville, Ohio SIZE: (7.5) or 15 YEAR 1960 P.R.-1979 1D) QUAD NAME North Kingsville SIZE: (7.5) or 15 YEAR 1960 P.R.-1970
2	Cercla Notification 8900-1 dated 6/5/81 from RMI Sodium Plant.
3	Letter from J.L. Holman RMI to T. Crepeau OEPA dated 7-16-85
4	Consent Aggreement + Final order from USEPA to RMI-Sodium. 8-29-83 on Open burning.
5	Report on Determination of HCB in water for RMI by ERG - 2/77.
6	RCRA Part A & Modifications
7	Citizen's Complaints in the form of Letters requesting denial of RMI NPDES Permit.
8	Analytical Results from 001 Pre NPDES permit.
9	Site Plan and cover for Landfill.
10	RCRA Generator ANNUAL Rept of HAZ. Waste for 1984

PA DOCUMENTATION SHEET

SITE RMI Sodium Plant
IDENTIFICATION NUMBER OHD000810242

SOURCE NUMBER	DESCRIPTION OF SOURCE
11	Final RI on Fields Brook by CH2M Hill 3/28/85
12	Interview with C. Frazier OEPA-NEDO 7-23-85
13	Interview with Dennis Bush, OEPA-NEDO, Air Section, on 7-23-85.
14	Phone conversation with Mr Bendo, Director of Recreation for City of Ashtabula dated 7-23-85.
15	Interview with Mr. Bill Skowronski dated 7-23-85. Ohio EPA-Nedo Haz. Waste.
16.	Interview with Mr. Bob Miller, OEPA NEDO Industrial WW, on 7-23-85.
17	Interview with Steve Tuckerman OEPA NEDO, Haz. Waste dated, 7-23-85.
18	Herron report done for RMI on groundwater dated 3-4-81
19	OHIO Water Service Description of distribution system.

PA DOCUMENTATION SHEET

SITE RMI-Sodium Plant
IDENTIFICATION NUMBER OHD000810242

SOURCE NUMBER	DESCRIPTION OF SOURCE
20.	Well logs in the area of RMI sodium plant
21	Form "2c" submitted by RMI dated 3-23-84.
22	Phone conversation bet. M.S. Ripp AND Doug Fischer, SCS on Irrigation. dated 7-18-85.
23	Population estimates with backup information re Ohio Population Dept.
24	Estimate of Population on Groundwater and 2 phone conversations; one with Dan Sewall E+E AND one with Don Calhoun Ohio Water Dept., Columbus, from Dave Vaughn E+E. dated 7-16-85.
25	6-27-85 RMI Sodium Plant Inspection Notes by Chris Frazier OEPA-NEDO HAZ waste.
26	Phone conversation with Ohio American Water Co dated 7-16-85.
27.	Phone conversation with MR. LYNN McClame Ohio Fish + Wildlife Service, Columbus, 7-16-85.

END

PA DOCUMENTATION SHEET

SITE RMI - Sodium Plant
IDENTIFICATION NUMBER OHD000810242

SOURCE NUMBER	DESCRIPTION OF SOURCE
2 (cont'd)	U.S. Fish + Wildlife Service, Columbus dated 7-16-85.
28	Facility description + discharge for NPDES outfall #001.
	END