

File ID Number: HWCB20161097

DEQ/DWM/Hazardous Waste Section

NCD/NCR (other) Number: NCD048467427

Facility Name: Chemical Specialties LLC

Address: 5910 Pharr Mill Rd

City: Harrisburg

County: Cabarrus

File Date Range: 5/22/96—12/10/02

Document Type (s)

- Inspection Reports
- *NOV (See Comments)
- * Compliance Orders/Settlement Agreement (See Comments)
*(Provide NOV Type, Docket Number and Date of NOV in Comment Section)
- Correspondence/Letters
- Pictures (Tape to a full sheet of paper)
- ** Name Change and Date of Change
** (Write Name Change Information in Comment Section)
- Sampling Data
- Other Information (See Comments)

Comments:

Box ID Number:

North Carolina
Department of Environment and Natural
Resources



Division of Waste Management

Michael F. Easley, Governor
William G. Ross Jr., Secretary
Dexter R. Matthews, Director

December 10, 2002

Mr. Sylvester J. Bartos
Compliance Manager
Chemical Specialties, Inc.
P.O. Box 1330
Harrisburg, NC 28075

Re: Fourth Quarter 2002 Groundwater Monitoring Report
Submitted December 2, 2002
Chemical Specialties, Inc.
Harrisburg, North Carolina
Facility ID # NCD 048 467 427

Dear Mr. Bartos:

The Hazardous Waste Section has reviewed the above-referenced document from Chemical Specialties and has no comments at this time. If you have any questions, please contact me at (919) 733-2178 ext. 225.

Sincerely,

Mark Wilkins, Hydrogeologist
Facility Management Branch
Hazardous Waste Section

cc: Narindar Kumar, US EPA, Region 4
Mark Burnette
Mark Wilkins

rc: Bob Glaser

c:\wpfiles\melodi\maw\12_02rpt.wpd

1646 Mail Service Center, Raleigh, North Carolina 27699-1646
Phone: 919-733-4996 \ FAX: 919-715-3605 \ Internet: www.enr.state.nc.us

10/28/02



Mr. Jesse Wells
188 Pinellas Lane
Waynesville, NC 28785

Subject: 10/21/02 Spill Report

Mr. Wells:

Following is the summary of the subject spill.

Name, address, and telephone number of the owner or operator

Chemical Specialties, Inc.
One Woodlawn Green
Suite 250
Charlotte, NC 28217
(704) 522-0825

Name, address, and telephone number of the facility

S.J. Bartos, V.P. of Operations
Chemical Specialties, Inc.
5910 Pharr Mill Rd.
Harrisburg, NC 28075
(704) 455-4138

Date, time, and type of incident

Spill from railcar unloading - 10/21/02 ca. 12:30pm

Name and quantity of material involved

Zinc carbonate 62% solution was spilled during unloading of a railcar. As the material was being unloaded using air pressure, the unloading hose broke at the quick connect at the top of the railcar causing material to flow onto the top of the railcar and into a track pan containment and onto the ground. Approximately 550 gallons of material was spilled.

PO Box 1330 • 5910 Pharr Mill Road • Harrisburg, NC 28075 • 704-455-5181
Main Fax 704-455-6507 • Purchasing and Transportation Fax 704-455-5987
Lab Fax 704-455-1123 • Accounting and PoleCare Fax 704-455-1940
Engineering Fax 704-454-5348

Extent of injuries, if any

There were no injuries

An assessment of actual or potential hazards to human health or the environment

The spill was contained in a dirt area next to the railside. No personnel were contaminated.

Estimated quantity and disposal of recovered material that resulted from the incident

The material captured in the track pan containment went to the site wastewater treatment plant. 34940 lbs. of contaminated dirt was neutralized with lime, dug up and placed in a roll-off, and sent to BFI Industrial Waste Landfill for disposal.

If there are any questions, please give me a call.

Sincerely,

A handwritten signature in black ink that reads "H.B. Howie Jr." with a stylized flourish at the end.

H.B. Howie Jr.
Compliance Manager
(704) 455-4171

Copy: Richard Berman
NC Emergency Response Commission

Mr. Mike Downs
Cabarrus County Emergency Services

as a print or type
not designed for use on elite (12 pitch typewriter)



470 706240

NON-HAZARDOUS WASTE MANIFEST	1. Generator's US EPA ID No.	Manifest Document No.	2. Page 1 of	31229
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3. Generator's Name and Mailing Address	CSI MINERAL RESEARCH 5916 PHARR MILL RD, HARRISBURG, NC 28075	Truck No. 10154 9839
4. Generator's Phone ()	704-455-5181	

5. Transporter 1 Company Name BFI	6. US EPA ID Number	A. Transporter's Phone 704-202-1344 704 393 6900 370
7. Transporter 2 Company Name	8. US EPA ID Number	B. Transporter's Phone

9. Designated Facility Name and Site Address BFI/CMS CMS LANDFILL 5105 Morehead Rd HARRISBURG, N.C. 28214	10. US EPA ID Number	C. Facility's Phone (704) 782-2004 704/782-2004
--	----------------------	--

11. Waste Shipping Name and Description	12. Containers		13. Total Quantity	14. Unit Wt/Vol
	No	Type		
a. Zn Chloride Contaminated Soil	01	Roll-off		
b.			17.47 TONS	
c.			34940/63	
d.				

D. Additional Descriptions for Materials Listed Above	E. Handling Codes for Wastes Listed Above F31Y28970
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15. Special Handling Instructions and Additional Information

16. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed / Typed Name Tim Renckens	Signature Tim Renckens	Month Day Year 10 25 02
--------------------------------------	---------------------------	--------------------------------

17. Transporter 1 Acknowledgement of Receipt of Materials	Printed / Typed Name Joe Bertolino	Signature Joe Bertolino	Month Day Year 10 25 02
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18. Transporter 2 Acknowledgement of Receipt of Materials	Printed / Typed Name	Signature	Month Day Year
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19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in Item 19.

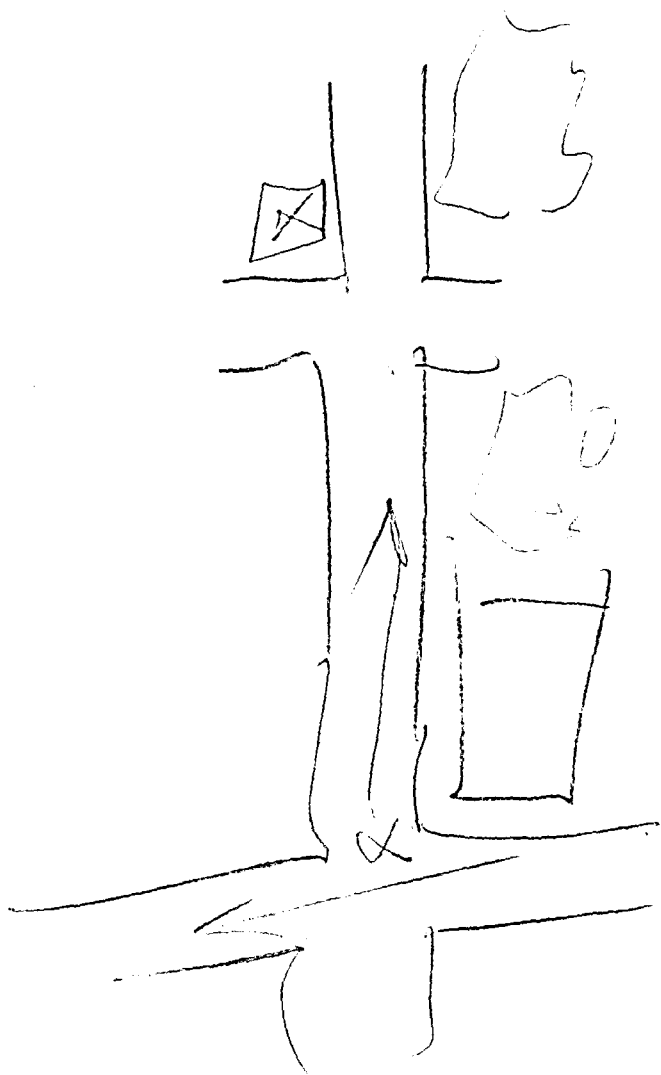
Printed / Type Name BFI/CMS	Signature Angie	Month Day Year 10 25 02
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GENERATOR
TRANSPORTER
FACILITY

TRANSPORTER

INITIAL CARGO REPORT

Date & Time of Incident	1/20/00 @ 12:50
Day & Time Reported	1/20/00 @ 13:20
Reported By Whom	Bobby Rourke / James Murray
Scene Location	Chemical Specialties, Inc. entrance and Pharr Mill Road
Driver	James Murray
Driver's Terminal	170 Concord, NC
Product Spilled	Sodium Hydroxide Solution <u>50%</u>
Hazardous or Non	Haz
Reportable Quantity	1000 pounds, 454 kilograms
DOT Reportable (5800)	Yes
Product I.D #	UN1824
Approx. Amt. Spilled	128 pounds
Tank #	6836
Tractor #	20130
Shipper	Jones Chemicals, Inc 1500 Tar Heel Road Charlotte, NC 28208
Contact	Lynn Martin 704-523-6910
Consignee	Chemical Specialties, Inc 5910 Pharr Mill Road Harrisburg, NC 28075
Contact	Heath Howie 704-455-5181
Claim #	17000-029-2
Claim Code (P or NP)	NP
Claim Status	OPEN
Reserve Amount	Approximate Cost \$760 in man hours, \$419 -supplies, \$200 pick-up buff
Authorities Notified	SKYTANK
Description of Events	The driver made an abrupt stop, upon entering CSI, due to exiting traffic. Product surge resulted and the driver noticed liquid out of drain tube.
	The driver proceeded through plant to what he felt a safe haven resulting in a trail of product. <u>CSI personnel secured this area.</u>
	The tank was cleaned and the shop determined that the pressure vent failed as well as
	Finding a crowfoot blank unsecured, Replaced vents and replaced & secured crowfoot.
Comments	I and shop personnel responded to scene & sealed area. Then purchased 30 bags of absorbent & three 55 gallon drums. We cleaning area with absorbent, placed the absorbent in drums and transported to the Concord yard. Checked affected area with CSI personnel and observed no product remaining. There was some whitish staining and an outside crew was contracted to pressure wash any stained areas. The following day, shop personnel returned to scene and removed any stained stone and gravel.





5000 Peachtree Industrial Boulevard
Suite 160
Norcross, GA 30071
770/409-0454
FAX: 770/409-9933

April 3, 1997

North Carolina Department of Environment,
Health, and Natural Resources
Hazardous Waste Section
P.O. Box 27687
Raleigh, NC 27611-7687



Attention: Mr. James A. Carter, Chief
North Carolina Hazardous Waste Section

Subject: SWMU 98 and SWMU 79 Release Notification
Chemical Specialties, Inc./Harrisburg, NC
Facility ID No. NCD 048 467 427-R1
Delta Project No. E095-080-2.0020

Dear Mr. Carter:

Delta Environmental Consultants, Inc. (Delta), on behalf of Chemical Specialties, Inc. (CSI), is submitting this letter as required by Post-Closure Permit No. NCD 048 467 427-R1. Accidental releases of a hazardous constituent occurred from solid waste management unit (SWMU) 98 on March 10, 1997 and from SWMU 79 on March 22, 1997. This letter is intended to serve as notification for the newly discovered releases at the previously identified SWMU's, as required by permit condition IV.D.1.

The accidental release from SWMU 98, the new arsenic acid storage tank dike and sump, occurred when the seal on the ethylene glycol pump inside the dike failed. Approximately 20 gallons of 25% ethylene glycol sprayed out of dike. Figure 1 shows the location of soil impacted by the release. CSI excavated soil at the release location until visual inspection indicated all the impacted soil was removed.

The second release occurred at SWMU 79, the 198 plant silo #1 dike and sump. The release resulted when a compressed air line was connected to the SWMU 79 silo in an attempt to free material which was stuck. Figure 2 shows the location of SWMU 79 and the area impacted by the release. Approximately 2,000 pounds of arsenic trioxide is estimated to have been released out the top of the silo. As shown by Figure 2, the visually impacted area is elliptical in shape and oriented approximately 50 feet southwest and 500 feet northeast of SWMU 79. The width of the ellipse is approximately 100 feet.

The released material was in a powder form. Approximately 80% of surface area where arsenic trioxide settled consisted of either a paved surface or building roofs. The settling area

was sprayed with water using fire hoses in order to wash arsenic trioxide into the facility storm water recovery system.


Currently, CSI is preparing a RFI Report for the investigation completed earlier this year. It is CSI's intention to assess soil impact resulting from these releases during the Phase II RFI. The RFI Report will include the Phase II work plan.

Should you have any questions or require clarification please call either Brent Callihan with Delta at (770) 409-0454 or Syl Bartos with CSI at (704) 455-4138.

Sincerely,

DELTA ENVIRONMENTAL CONSULTANTS, INC.


David K. Huff
Project Manager


J. Brent Callihan, P.G.
Industrial Unit Manager

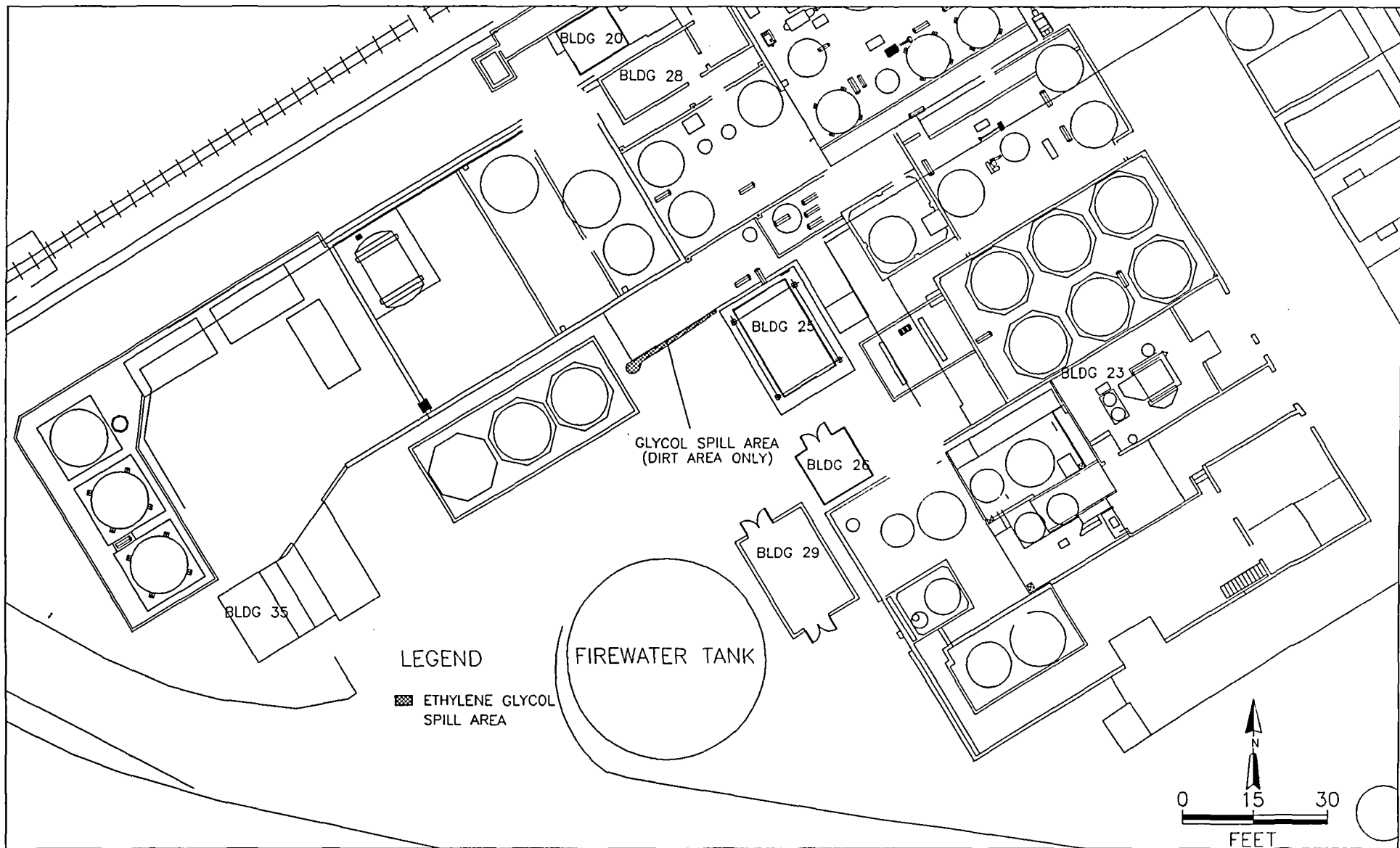
DKH/JBC/slt

Attachments:

Figure 1 - SWMU 98 Release Area

Figure 2 - SWMU 79 Release Area

cc: Paul Miano - CSI/Harrisburg
Elizabeth A. Hartzell - NCDEHNR
✓ Jessie Wells - NCDEHNR/Mooresville



TITLE:
SOLID WASTE MANAGEMENT UNIT 98
CHEMICAL SPECIALTIES, INC.
HARRISBURG, NORTH CAROLINA

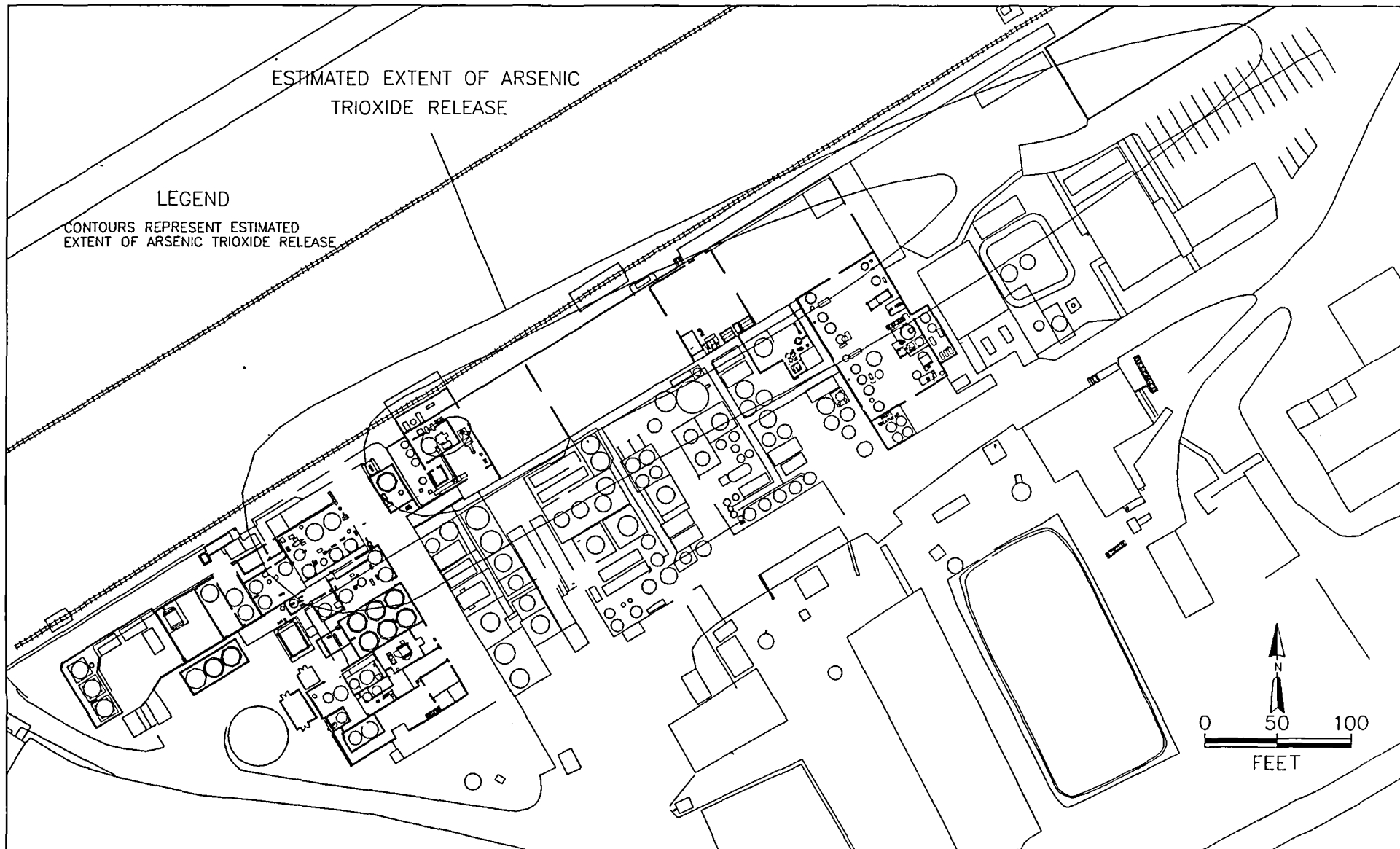
DWN: CBA	DES.: DKH
CHKD: JBC	APPD: JBC
DATE: 4/3/97	REV.: 4/3/97

PROJECT NO.: E095-080
FIGURE NO.: 1

ESTIMATED EXTENT OF ARSENIC
TRIOXIDE RELEASE

LEGEND

CONTOURS REPRESENT ESTIMATED
EXTENT OF ARSENIC TRIOXIDE RELEASE



TITLE:
THE 198 PLANT SILO #1 DIKE & SUMP
CHEMICAL SPECIALTIES, INC.
HARRISBURG, NORTH CAROLINA

DWN: CBA	DES.: DKH
CHKD: JBC	APPD: JBC
DATE: 4/3/97	REV.: 4/3/97

PROJECT NO.: E095-080
FIGURE NO.: 2

**Division of Waste Management
Hazardous Waste Section**

March 24, 1997

Memorandum To: Keith Masters
Hazardous Waste Section
Western Area Supervisor

From: Jesse W. Wells *JWW*
Waste Management Specialist
 Mooresville Regional Office

Subject: Chemical Specialties, Inc.
Pharr Mill Road
Harrisburg, Cabarrus County, N.C.
NCD048467427

On March 24, 1997 I visited the subject facility to determine the cause of an arsenic trioxide release which occurred on the morning of March 22, 1997. Upon arrival to the site I was met with Mr. Syl Bartos, Compliance Manager, at CSI. Arsenic trioxide is used as an intermediate material in the manufacture of arsenic acid which in turn is used in the production of CCA wood preservative. Waste generated from the cleanup of the release would be regulated as a P012 hazardous waste.

The release occurred at a holding silo for the arsenic trioxide. At about 7:20 am a worker at the plant noted a dust cloud above the silo. The dust cloud above the silo was arsenic trioxide which was being intermittently release into the atmosphere from a 12-16 inch pressure/vacuum release vent on top of the silo. During the production process arsenic trioxide is removed from the silo to be used in the production of arsenic acid. Due to the configuration of the silo, "rat holes" may be formed inside the silo which prevents the arsenic trioxide from exiting the silo. Under normal conditions a sonic horn installed on the silo will cause the silo to vibrate and the "rat hole" will collapse and allow the movement of arsenic trioxide out of the silo. For some reason an unidentified operator installed a compress air line to the bottom of the silo and began injecting air into the silo to break up the "rat hole". Air was being supplied at a rate of 100 psi. This resulted in the arsenic trioxide being expelled from the release vent on top of the silo. This method of breaking the "rat hole" is against company policy as the results of such action can be the release which occurred. The air line/air source which was connected to the silo was not immediately available at the silo operation site. The operator who installed the line had to go to another part of the plant to obtain the equipment to blow the silo.

Facility HAZWOPER personnel responded to the incident. The release was stopped after approximately forty minutes. Non-essential personnel were evacuated from the area. Wind speed and direction was such that no evacuation of areas outside the plant area was necessary. The facility did implement the contingency plan and appropriate County/Local Emergency Response

Page Two
CSI
March 24, 1997

personnel were notified.

Mr. Bartos reported that approximately 2000 lbs of the material was released. This is an estimate and final released amounts are pending completion of the clean up. The arsenic trioxide settled on the roof of the facility, in and around the silo within secondary containment and around other process vessels within the manufacturing area. Cleanup consisted of vacuuming the dust to remove visible accumulated amounts. Once clean the roofing was rinsed and the rinse water was directed down roof drains into a 5000 gallon tank. This tank is connected to a lined surface impoundment which has been designed to handle major releases of materials which might occur at the plant.

At the time of my visit clean-up operations were still being conducted but all immediate threats had been addressed. Plans are to monitor all stormwaters exiting the roof drains for arsenic to determine effectiveness of the clean up of the roof area. The surface impoundment will be cleaned of all accumulated solids once the plant area has been remediated. Water in the impoundment will be directed through a filter press to remove any solids. The solids will be managed as a P012 waste and the water will be directed through the wastewater treatment plant.

Prior to departing the site Mr. Bartos was reminded to complete a written report documenting the incident in accordance to 40 CFR 265.56(j). Facility personnel which participated in the clean up are under going medical monitoring and at the time of my visit some employees were wearing personal monitors. I have attached an engineering diagram of the silo in which the release occurred and photographs were taken of the silo.

I will keep in touch with the facility as the clean up continues. Due to the nature of the material long term monitoring may be required to properly assess the release and the effectiveness of the remedial actions.

Please advise should you have any questions. I will forward to you a copy of the facility's incident report once it is made available to the regional office.

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY	
<ul style="list-style-type: none"> Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits. 	A. Received by (Please Print Clearly)	B. Date of Delivery 10-22-99
1. Article Addressed to: Chemical Specialties, Inc Attn: Syl Bartos Post Office Box 610 Harrisburg, NC 28075	C. Signature <input checked="" type="checkbox"/> <i>Jim Mobley</i> <input type="checkbox"/> Agent <input type="checkbox"/> Addressee D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No	
2. Article Number (Copy from service label) Z 298 004 865 (10/20/99)	3. Service Type <input type="checkbox"/> Certified Mail <input type="checkbox"/> Express Mail <input type="checkbox"/> Registered <input type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> Insured Mail <input type="checkbox"/> C.O.D.	
PS Form 3811, July 1999	4. Restricted Delivery? (Extra Fee) <input type="checkbox"/> Yes	102595-99-M-1789

Z 298 004 865

US Postal Service
Receipt for Certified Mail
 No Insurance Coverage Provided.
 Do not use for International Mail (See reverse)

Sent to Chemical Specialties,	
Street & Number P.O. Box 610	
Post Office, State, & ZIP Code Harrisburg, NC 28075	
Attn: Mr. Syl Bartos	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	\$
Postmark or Date	

PS Form 3800, April 1995

NORTH CAROLINA DEPARTMENT OF
ENVIRONMENT AND NATURAL RESOURCES

MOORESVILLE REGIONAL OFFICE

Waste Management Division
Hazardous Waste Section

NOTICE OF VIOLATION



JAMES B. HUNT JR.
GOVERNOR

To: Chemical Specialties, Inc. **Docket #: 00-007**
Address: 5910 Pharr Mill Road, PO Box 610 Inspection Date: October 19, 1999
 Harrisburg, N.C. 28075 Facility Type: Generator

EPA ID#: NCD048467427

WAYNE MCDEVITT
SECRETARY

On December 18, 1980, the State of North Carolina, Hazardous Waste Section (State) was authorized to operate the State RCRA hazardous waste program under the Solid Waste Management Act (ACT), N.C.G.S. 130A, Article 9 and rules promulgated thereto at 15A NCAC 13A (Rules) in lieu of the federal RCRA program.

On October 19, 1999, Mr. Dan Graham and Mr. Brent Burch, Waste Management Specialists representing the N.C. Hazardous Waste Section, inspected your facility for compliance with North Carolina Hazardous Waste Management Rules. During that inspection, the following violations were noted:

Citation

Specifics

- 1) **40 CFR 262.34(a)(1)(i) adopted by reference at 40 CFR 265.174**

The owner or operator must inspect areas where containers are stored, at least weekly, looking for leaks and for deterioration caused by corrosion or other factors.

During the inspection, it was noted that the facility failed to conduct inspections on the hazardous waste storage areas between the dates of 3/31/99 and 4/12/99.

- 2) **40 CFR 262.34(a)(4) adopted by reference at 40 CFR 265.16 (b)**

Facility personnel must successfully complete the program required in paragraph (a) of this section within six months after the effective date of these regulations or six months after the date of their employment or assignment to a facility, whichever is later. Employees hired after the effective date of these regulations must not work in unsupervised positions until they have completed the training requirements of paragraph (a) of this section.

During the inspection, it was noted that Mr. Allen Stark was not trained in hazardous waste management within six months of his employment. His employment began on 12/15/98, and Mr. Stark had not received training until 8/13/99.

919 NORTH MAIN STREET, MOORESVILLE, NORTH CAROLINA 28115

PHONE 704-663-1699 FAX 704-663-6040

AN EQUAL OPPORTUNITY / AFFIRMATIVE ACTION EMPLOYER - 50% RECYCLED/10% POST-CONSUMER PAPER

Page Two
Chemical Specialties, Inc.
NCD048467427
October 20, 1999

You are hereby required to comply with the noted violations by November 22, 1999. If compliance with the violations noted above is not met, pursuant to N.C.G.S. 130A-22(a) and 15A NCAC 13B .0701-.0707, an administrative penalty of up to \$25,000.00 per day may be assessed for violation of the hazardous waste law or regulations.

10/20/99

(Date)

Dan Graham

N.C. Hazardous Waste Section

I, Dan Graham, hereby certify that I have personally served a copy of this notice on: Mr. Syl Bartos at Chemical Specialties, Inc., P.O. Box 610, Harrisburg, N.C. 28075, on October 20, 1999.

sent certified mail
(Recipient Signature)

Copies to: field files
 central files

RCRA INSPECTION REPORT

1. **Facility Information:** Chemical Specialties Inc. (CSI)
5910 Pharr Mill Road, P.O. Box 610
Harrisburg, N.C. 28075
NCD048467427

2. **Facility Contact:** Mr. Syl Bartos
704/377-6555

3. **Survey Participants:** Syl Bartos, Brent Burch

4. **Date of Inspection:** October 19, 1999

5. **Purpose of Inspection:** To determine compliance with 40 CFR 262, 264, 268, and 279.

6. **Facility Description:** CSI is a manufacturer of inorganic chemicals predominantly used in the wood preserving industry. The facility closed four surface impoundments. Waste removed from the impoundments was removed and stabilized with Portland cement and fly ash. The stabilized waste was then land disposed in an on-site landfill designated #3. The landfill covers 1.074 acres and 345,856 cubic feet of stabilized hazardous waste was disposed of in the fill area. The facility presently maintains one impoundment holding treated wastewater which is discharged to the Rocky River under an NPDES permit. The plant wastewater is treated with lime to raise the pH and to stabilize metals. Wastewater discharged to the river must be at a pH of ≤ 9.0 . The facility maintains another impoundment for spill release purposes.

7. **Type Waste:**
 - D004 - hazardous waste solid (arsenic).

 - D004/D007/D009 - hazardous waste solid (chromium trioxide, arsenic pentoxide, chromic acid).

 - P012/D009 - hazardous waste solid (arsenic trioxide).

 - D004/D007/D009 - hazardous waste liquid.

 - D001- waste flammable liquid (mineral spirits, ethyl alcohol, formaldehyde)

 - F027/D001- waste toxic, organic, flammable liquid (pentachlorophenol, ethanol, dioxin)

 - P012/D009 - waste arsenic trioxide

 - D001/D002 - waste dinitrogen tetroxide

 - D004/D002 - waste corrosive liquid toxic (arsenic trioxide, nitric acid)

Page Two
Chemical Specialties Inc.
NCD048467427
October 19, 1999

- D001/D0035/D002/d008/U219/U041/D005/F003/F005/D003/D006/D007/D011 - Lab packs

8. Areas of Inspection

(Yes = compliance, no=violation, na=not applicable)

- Emergency Preparedness: Yes
- Inspection Records: No
- Contingency Plan: Yes
- Training Records: No
- Manifests/LDR: Yes

- **90/180 Day Storage Areas:** The facility maintains two areas for <90 day storage of hazardous waste. The main storage area is located in the warehouse. At the time of the inspection, 13 boxes containing P012/D004 arsenic trioxide contaminated debris were located in the storage area.

- **Satellite Accumulation Areas:** The facility maintains eighteen satellite accumulation areas. All containers used for satellite accumulation of hazardous waste were found to be labeled and closed. One 30-yard roll-off container used for the accumulation of the 198 AA recovery sludge (arsenic) must be treated as a <90 day storage area due to its location. This container was dated, labeled, and closed.

-**External Facility Condition:** Good condition

-**Other HW Units:** The facility has a closed hazardous waste landfill. The landfill is subject to Part B permitting requirements as a disposal facility and is subject to corrective action. The facility maintains six groundwater monitoring wells to monitor the closed units. No erosion was noted on the landfill cap.

9. Waste Minimization: The facility maintains a written plan.

10. Site Deficiencies:

- 1) **40 CFR 262.34(a)(1)(i) adopted by reference at 40 CFR 265.174 -** The owner or operator must inspect areas where containers are stored, at least weekly, looking for leaks and for deterioration caused by corrosion or other factors. Chemical Specialties Inc. failed to conduct inspections on the hazardous waste storage areas between the dates of 3/31/99 and 4/12/99. In order to correct the violation, the facility must ensure that weekly inspections are conducted, at least weekly, on areas where containers of hazardous waste

Page Three
Chemical Specialties Inc.
NCD048467427
October 19, 1999

area being stored.

- 2) 40 CFR 262.34(a)(4) adopted by reference at 15A NCAC 13A .0007- A generator may accumulate hazardous waste on-site for 90 days or less without a permit or without having interim status, provided that the generator complies with the requirements for owners or operators in Subparts C and D in 40 CFR Part 265, with Section 265.16 and with 40 CFR 268.7(a)(4).

a) 40 CFR 265.16 (b), adopted by reference at 15A NCAC 13A .0010, states that facility personnel must successfully complete the program required in paragraph (a) of this section within six months after the effective date of these regulations or six months after the date of their employment or assignment to a facility, whichever is later. Employees hired after the effective date of these regulations must not work in unsupervised positions until they have completed the training requirements of paragraph (a) of this section. Chemical Specialties Inc. failed to train employee Allen Stark within six months of his employment. His employment began on 12/15/98, and Mr. Stark had not received training until 8/13/99. However, Mr. Bartos stated that Mr. Stark did not work unsupervised during this time period. In order to correct the violation, the facility must ensure that all employees are trained within six months of their employment.

Ticket NOV Docket #00-007 issued to facility.

INSPECTOR (DATE)

sent certified mail
FACILITY CONTACT

STATE OF NORTH CAROLINA
Department of Environment, Health,
and Natural Resources
919 North Main St.
Mooresville, N.C. 28115
(704)663-1699/ FAX 663-6040

Hazardous Waste Section File Access Record

Time/ Date Dec. 6, 1999 9 am
Name Tom HASSETT
Representing Geoscience Group Inc.

Guidelines for Access:

The staff of the Mooresville Regional Office is dedicated to making public records, in our custody, readily available to the public for review and copying. We also have the responsibility to the public, to safeguard these records, and to carry out our day-to-day program obligations. Please read carefully, the following guidelines before signing this form:

1. We prefer that you call at least a day in advance to schedule an appointment to review the files. Appointments will be scheduled between 9:00 am and 4:00 pm. Viewing time ends at 5:00 pm. Anyone arriving without an appointment may view the files to the extent that time and staff supervision is available.
2. You must specify the files you want to review by facility names. The number of files that you may review at one time will be limited to five (5).
3. You may make copies of a file when the copier is not in use by the staff, and if time permits. Access to the copy machine may be limited after 2:00 pm, due to heavy staff use. Cost per copy is ten (10) cents; payment may be made by check, money order, or cash at the reception desk. Checks should be made payable to the Dept. of Environment, Health, and Natural Resources, or DEHNR.
4. **FILES MUST BE KEPT IN THE ORDER YOU FOUND THEM.** Files may not be taken from the State office. To remove, alter, deface, mutilate, or destroy material in one of these files is a misdemeanor for which you can be fined up to \$ 500.00.

	<u>Facility Name</u>	<u>County</u>
1.	<u>Chemical Specialties, Inc.</u>	<u>Cabarrus</u>
2.		
3.		
4.		
5.		

Thomas C. Hassett Geoscience Group Inc. 12/6/99 9 am / 1 pm
Signature & Name of Firm/ Business Date Time In/ Time Out
(Please Attach a Business Card to This Form)



NO. STATE OF
ENVIRONMENT, PLANNING
& NATURAL RESOURCES

NOV 3 1999

DIVISION OF ENVIRONMENTAL MANAGEMENT
WATER QUALITY CONTROL DIVISION

November 2, 1999

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. Dan Graham
North Carolina Department of Environment and Natural Resources
Division of Water Quality
919 North Main Street
Mooresville, NC 28115

Subject: NCD 048 467 427
Notice of Violation
Docket #: 00-007

Dear Mr. Graham:

In response to the referenced notice of violation, I offer the following corrective actions.

Citation

Corrective Actions

- 1 Inspections were not performed between the dates 3/31/99 and 4/12/99 because the individual assigned to perform the inspections was on vacation. A back-up inspector has been assigned.

Mr. Heath Howie will perform inspections when the normal inspector is on vacation or can not otherwise perform his duty.
- 2 An employee had not received training within the required 6-month period following his initial employment. Hazardous waste training has been integrated into the New Employee Safety Indoctrination training given to each employee before beginning his or her job.

These corrective actions should resolve the noted violations. Thank you for your time and consideration in this matter. If more is required or if you have any questions concerning this matter, please do not hesitate to contact me at (704) 455-4138.

Sincerely,

Sylvester J. Bartos
Compliance Manager
Chemical Specialties, Inc.

PO Box 1330 • 5910 Pharr Mill Road • Harrisburg, NC 28075 • 704-455-5181
Main Fax 704-455-6507 • Purchasing and Transportation Fax 704-455-5987
Lab Fax 704-455-1123 • Accounting and PoleCare Fax 704-455-1940

CSI - NCD048467427 Lat I+ - 10/16/98

Two revisions

* Weekly injectors - 3/31/99 -> 4/12/99 missed

TICKET

Manifests: T-STAT, Inc. - NCD980789142

OK

- AB Environmental Services - NCR000010488
- ROLLEX Transport LTES - NYF006000053
- TRANS AB ENVIRONMENTAL NCR 000010488

D- EcoFlo, Inc. - NCD980842132

- SafetyKleen, Inc. - NCD000648451; (SET Environmental - ILD981959236)
- Treatment One - TXD0551035388
- ENVIROCHEM NCD982170292

W- Haz waste solid - arsenic ^{2004/0007} - 0007; WFL - mineral spirits - 0001; ^{2004/0007}
 waste arsenic pentoxide, chromic acid - 0004/0007; ^{2004/0007} Haz waste solid - arsenic pentoxide, chromic acid - 0004/0007;
 haz waste solid - arsenic, mercury - 0004/0009; waste corrosive liquid - arsenic acid - 0004;
 wtl - ethyl alcohol, formaldehyde - 0001; waste arsenic trioxide - P012/0009
 waste toxic, liquid, flammable, organic - pentachlorophenol, ethanol, dioxin waste - F029/0009
 waste dinitrogen tetroxide - 0001/0002; waste corrosive liquid toxic - arsenic trioxide, nitric acid, - 0004/0002; ~~2004/0002~~ - waste nitric oxide - P016
 Lab packs - 0001/0035/0002/0008/0219/0041/0005/F007/F005/1003/1006

0007 | 0001

Annual heat - OK

Costm. Plan: OK

2 Arquiches, hoses, sprinklers

CSI

12/16/98

✓ Financial Assurance

- ✓ Q. mon.
- ✓ Sampling Plan
- ✓ GW assessment Plan
- analysis permit
- permit

Letter of Credit

341,994.98

post closure only

Post closure doc maintained yes

Corrective Action System Oper; Maint Plan
Cost Est. for ↑

- ✓ Post Closure Plan / Care
- ✓ Insp schedule per 264.73
- ✓ Operating Record
- ✓ Corrective action plan 264.101
- ✓ GW monitoring records
- ✓ Survey Plat; Record, Type, Loc. Quant. of H₂O or
- N/A Hay Cont. disposed of within each cell of facility 264.119
- ✓ All reports; documents

118 A, b (1) (2) post closure period.

* [Allen Starik employed 12-15-98]
 Trained 8/13/98]

Rob Miller Area Manager
for AA Plant

Satellite Accumulation Areas

The building locations can be found on drawings at the Site; the letter references can be located on the drawing in Appendix 1A of this Contingency Plan.

- ✓ a. Under Loading Mezzanine in Driveway # 3 Drive # 3
- ✓ b. Arsenic Acid Rotary Vacuum Filter Room Bldg. 23
- c. Not In service
- d. Two in the CCA Production Area Near R-91 & R-92
 - ✓ 1) Lower Level *low*
 - ✓ 2) Mezzanine Level
- ✓ e. 6 QC Laboratories Bldg. 5
- ✓ f. R & D Laboratory Bldg. 5 Basement
- ✓ g. R & D Treatment Cylinder Area Bldg. 5 Basement
- ✓ h. Outside Bldg. 5 Extension Bldg. 5 Basement
 - ① 1) CCA Off-Spec Material
 - 2) Low Flash Organic Solvent ~~⊗~~
- ✓ i. Maintenance Shop Bldg. 4
 - ② 1) CCA Contaminated Rubbish/Debris in Shop Area
 - ② 2) Waste Paint and Thinner
- ✓ j. Old 198 Control Room (Blue Room) Bldg. 31
- ✓ k. New 198 Control Room Bldg. 34
- ✓ l. 198 QC Lab Bldg. 34
- ✓ m. 198 Breakroom *outside* Outside Bldg. 22
- ✓ n. Bulk Bag Facility Bldg. 36
- ✓ o. Dirty Side of Showers Bldg. 216
- ✓ p. Warehouse # 4 Bldg. 230
- ✓ q. Arsenic Trioxide Manual Drum Unloading Area Bldg. 126

Store all waste in an container

① 90 day 13 crates Rubbish Debris
② 90 day Roll off



NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES

DIVISION OF WASTE MANAGEMENT

May 25, 1999



JAMES B. HUNT JR.
GOVERNOR

WAYNE McDEVITT
SECRETARY

WILLIAM L. MEYER
DIRECTOR

Sylvester J. Bartos
Compliance Manager
Chemical Specialties, Inc.
Post Office Box 1330
5910 Pharr Mill Road
Harrisburg, North Carolina 28075

RE: Request for 30-day extension
Chemical Specialties, Inc.
NCD 048 467 5427

Dear Mr. Bartos:

This is in response to your letter dated May 13, 1999 requesting a second extension to the 90-day storage limit for hazardous waste at the subject site. A previous disposal facility indicated that they no longer would accept the material. Your waste broker, ECOFLO and site personnel have been attempting to identify a disposal facility that can treat the waste for disposal. Approval from a facility is expected soon, though beyond the original 30-day extension.

In accordance with 40 CFR 262.34(b), adopted by reference at 15A NCAC 13A .0107, a thirty day extension is granted. Based on the information provided, the extension covers the period between May 19, 1999 and June 18, 1999. By June 28, 1999, please submit to this office a copy of the manifest signed by the transporter indicating the waste has been shipped off-site.

If you have any questions, or need further assistance, please feel free to contact Linda Culpepper at (919) 733-2178 Ext. 220.

Sincerely,

Jill E. Burton, Acting Chief
Hazardous Waste Section

cc: Jesse Wells
Dan Graham
Beth Hartzell
Central Files - general

Mindful Research

NORTH CAROLINA DEPARTMENT OF
ENVIRONMENT AND NATURAL RESOURCES
MOORESVILLE REGIONAL OFFICE
NORTH CAROLINA DIVISION OF WASTE
MANAGEMENT

July 21, 1999



JAMES B. HUNT JR.
GOVERNOR

WAYNE McDEVITT
SECRETARY

RCRA Enforcement and Compliance Branch
Waste Management Division
USEPA Region 1
JFK Office Building,
Boston, MA 02203
Attention: Rich Piligian

Re: Chemical Specialties, Inc. (CSI)
5910 Prarr Mill Road
Harrisburg, North Carolina 28075

Dear Rich,

On July 20, 1999, Jesse Wells and I visited the above referenced site to obtain information that you requested concerning the material that CSI receives from BB&S.

We met with Mr. Sylvester Bartos, Compliance & Project Engineering Group Manager for CSI. Mr. Bartos stated that the material, a filter cake, is received in drums and in turn the material is placed directly into the hot arsenic bath or hot CCA. The material is not treated in any way before it is used in CSI's process. A letter (enclosed), dated July 13, 1999, explains the procedure used at CSI to process the material. Also, an MSDS of the material is enclosed.

At this time, it would appear that CSI is indeed using the material as a product and the product would not be considered a solid waste. If after you read the July 13, 1999 letter and you think I erred in my assumption, please feel free to contact me at (704)663-1699.

Sincerely,

Dan Graham
Waste Management Specialist

cc: Jesse W. Wells

NORTH CAROLINA DEPARTMENT OF
ENVIRONMENT AND NATURAL RESOURCES
MOORESVILLE REGIONAL OFFICE
NORTH CAROLINA DIVISION OF WASTE
MANAGEMENT

July 23, 1999



JAMES B. HUNT JR.
GOVERNOR

WAYNE McDEVITT
SECRETARY

RCRA Enforcement and Compliance Branch
Waste Management Division
USEPA Region 4
Sam Nunn Atlanta Federal Center
61 Forsyth Street, SW
Atlanta, Georgia 30303
Attention: Kris Lippart

Re: Chemical Specialties, Inc. (CSI)
5910 Prarr Mill Road
Harrisburg, North Carolina 28075

Dear Kris,

On July 20, 1999, Jesse Wells and I visited the above referenced site to obtain information that was requested by Rich Piligian of the EPA Region I. Mr Piligian wanted to know if the material that CSI receives from an "industry" in Rhode Island is altered in any way before it is introduced in CSI's process and how the arsenic bath is used in their process.

We met with Mr. Sylvester Bartos, Compliance & Project Engineering Group Manager for CSI. Mr. Bartos stated that the material, a filter cake, is received in drums and in turn the material is placed directly into the hot arsenic bath or hot CCA. The material is not treated in any way before it is used in CSI's process. A letter (enclosed), dated July 13, 1999 explains the procedure used at CSI to process the material. Also, an MSDS of the material and a copy of the February 7, 1996, DEHNR letter are enclosed.

At this time, it would appear that CSI is indeed using the material as a product and the product would not be considered a solid waste. If after you read the July 13, 1999, letter and you think I erred in my assumption, please feel free to contact me at (704)663-1699.

I am sending a copy of the July 13, 1999 letter and MSDS to Rich Piligian for his review and comments.

Sincerely,


Dan Graham
Waste Management Specialist

cc: Jesse W. Wells

State of North Carolina
Department of Environment,
Health and Natural Resources
Division of Solid Waste Management



James B. Hunt, Jr., Governor
Jonathan B. Howes, Secretary
William L. Meyer, Director

February 7, 1996

Sylvester J. Bartos Compliance Manager
Chemical Specialties, Inc.
Post Office Box 610
5910 Pharr Mill Road
Harrisburg, North Carolina 28075

RE: Customer's CCA Residue

Dear Mr. Bartos:

This is in response to your July 21, 1995, letter requesting a regulatory interpretation of hazardous waste management regulations regarding the management of CCA residue generated by your customers when employing a hot water bath process to speed up the fixation of the CCA. After an extended period of use, the heating solution is said to build up organic matter, copper, arsenic and chrome. Chemical Specialties, Inc. (CSI) has developed a technology to filter the precipitation from the heating solution rendering a solid material of filter aid/arsenic/copper/chrome compounds. There are trace arsenic levels over hazardous waste toxicity characteristic level. CSI states it can use the filtered material as generated to replace raw material feedstock in its manufacturing of CCA. CSI considers the filtered material a "by-product" since it is a process residue.

The initial levels of the metals in the spent hot water bath was not indicated. If the spent bath would be considered a hazardous waste, your customer would be able to treat (filter) the hazardous waste in a tank or container under hazardous waste generator provisions. The filtrate if reclaimed and reused to treat wood, would not be considered a solid waste under the provisions of 40 CFR 261.4(a)(9) as codified at 15A NCAC 13A .0006 and thus not regulated under RCRA as a hazardous waste.

If you have any questions, please feel free to contact Doug Roberts of my staff at (919) 733-2178 ext. 233.

Sincerely,

James A. Carter, Chief
Hazardous Waste Section

cc: Linda Culpepper Doug Holyfield Keith Masters Jesse Wells Doug Roberts



July 13, 1999

Mr. Doug Mancosh
BB&S Treated Lumber of New England, Inc.
P.O. Box 982 Devil's Foot Road
North Kingstown, RI 02852

Re.: Filter Cake Processing

Dear Mr. Mancosh:

Per your request, I offer the following. The responses follow the bullet points presented in your request.

- CSI, a division of Laporte PLC, is a supplier of wood treatment chemicals, technology, and engineering to over 150 wood treaters in North America. Our products include wood preservatives (CCA, ACQ, fire retardant, moldicides, water repellants, and colorants).

Corporate headquarters are in Charlotte, NC and manufacturing sites are located in Harrisburg, NC, Valdosta GA, Gilmer, TX and Washougal, WA.

Our products are sold in bulk to EPA registered wood treatment plants that process wood for industrial and consumer use.

- The material recycled from BB&S is placed in arsenic acid. Arsenic acid is then used internally to manufacture chromated copper arsenate or CCA. CCA is a preservative used in the pressure treatment of wood.
- The Harrisburg, NC site of CSI is a RCRA large quantity generator. The site also holds a Post Closure Part B Permit issued by the State of North Carolina. The permit number is NCD048467427. Site was found in compliance per our last inspection, which is attached.
- The RCRA contact is Mr. Jesse Wells, who is located in the Asheville, NC regional office at 828-251-6208. However, CSI requests that he not be contacted without our prior approval and a list of the questions he is to be asked.
- CSI processes a filter cake material laden with arsenic that is generated internally. The material is taken from one process and introduced to a washing filter press system. The resulting material is still hazardous but is reduced in weight and toxicity. The process has been reviewed and approved by the State. Another process involving the washing of super sac bags is also utilized on site and is approved by the State. We have a long running relationship with the State on working towards hazardous waste reduction, recycling or reclamation projects.

PO Box 1330 • 5910 Pharr Mill Road • Harrisburg, NC 28075 • 704-455-5181
Main Fax 704-455-6507 • Purchasing and Transportation Fax 704-455-5987
Lab Fax 704-455-1123 • Accounting and PoleCare Fax 704-455-1940

Mr. D. Mancosh
July 13, 1999
Page 2 of 2

- The material from BB&S is received in metal drums and stored in an enclosed warehouse that incorporates a spill collection system. Per RCRA regulation, 75% of the material received is processed within a year.
- BB&S material is added to hot arsenic acid, allowed to go into solution and then filtered as are other batches of arsenic acid. The exact procedure used at our facility to process the BB&S filter cake is as follows:
 1. An unfiltered batch of arsenic acid is released by the QC laboratory and moved to the adjusting reactor.
 2. The batch is peroxidized to remove residual arsenic trioxide per normal procedures.
 3. The cooling panels are shut off to maintain the batch of acid above 160°F.
 4. A drum of BB&S material is selected and lifted to the adjusting reactor mezzanine and placed into a drum tipper.
 5. The agitator to the adjusting reactor is turned on.
 6. The vent line to the acid plant scrubber system is opened.
 7. The manway of the adjusting reactor is opened.
 8. The lid on the drum is removed and the contents of the drum are slowly dumped into the adjusting reactor.
 9. The drum is then rinsed out.
 10. The contents of the adjusting reactor are allowed to agitate for 2 hours, which allows the copper and arsenic in the BB&S material to go into solution.
 11. The cooling panels are turned on and the batch is cooled to 120°F and filtered like a normal batch of arsenic acid.
- The resulting arsenic acid is used to manufacture CCA. The arsenic and copper content of the BB&S material is used to offset copper oxide or arsenic acid that would otherwise have been used.

If you have any questions concerning this procedure please feel free to contact me at your convenience at 704-455-4138.

Sincerely,



Sylvester J. Bartos
Compliance Manager
Chemical Specialties, Inc.

Cc: Mr. S. Ainscough
Mr. T. Fitzgerald
Mr. J. Saur

15. REGULATORY INFORMATION

ADDITIONAL U.S. REGULATIONS:

U.S. SARA REPORTING REQUIREMENTS: The components of this product are subject to the reporting requirements of Sections 302, 304, and 313 of Title III of the Superfund Amendments and Reauthorization Act, and are listed as follows:

CHEMICAL NAME	SARA 302 (40 CFR 355, Appendix A)	SARA 304 (40 CFR Table 302.4)	SARA 313 (40 CFR 372.65)
ARSENIC ACID	NO	YES	YES (as Arsenic Compound)
CHROMIUM	NO	NO	YES (as Chromium Compound)
COPPER OXIDE	NO	NO	YES (as Copper Compound)

U.S. SARA THRESHOLD PLANNING QUANTITY: Not applicable.

U.S. CERCLA REPORTABLE QUANTITY (RQ): Arsenic= 1 lb.

U.S. TSCA INVENTORY STATUS: This product is not subject to the requirements of the TSCA because it is regulated under the Federal Insecticide, Fungicide, and Rodenticide Act.

The OSHA Inorganic Arsenic Standard (29 CFR 1910.1018) is not applicable to employee exposures in agriculture or resulting from pesticide application, the treatment of wood with preservatives or the utilization of arsenically preserved wood. However, it is recommended that this Standard be reviewed and the guidelines be implemented where applicable and practical.

U.S. STATE REGULATORY INFORMATION: Components in this product, specifically listed in Section 2 (Composition and Information on Ingredients), are covered under specific State regulations, as denoted below:

Alaska - Designated Toxic and Hazardous Substances: Chromium and Chromates.	Michigan - Critical Materials Register: Arsenic, chromium compounds.	Pennsylvania - Hazardous Substance List: Arsenic, Chromium, Copper.
California - Permissible Exposure Limits for Chemical Contaminants: Arsenic Inorganic Compounds, Chromium Compounds, Copper Salts (dust and mist).	Minnesota - List of Hazardous Substances: Arsenic and Soluble Compounds, Chromium and Chromates, Copper (dust, mist, fumes).	Rhode Island - Hazardous Substance List: Arsenic, Chromium, Copper.
Florida - Substance List: Arsenic, Chromium, Copper (fume, dust, mist).	Missouri - Employer Information/Toxic Substance List: Arsenic Acid, Chromium, Copper.	Texas - Hazardous Substance List: Chromium and Chromates, Copper (fume).
Illinois - Toxic Substance List: Arsenic Compounds, Chromic Salts, Copper.	New Jersey - Right to Know Hazardous Substance List: Arsenic Acid, arsenical pesticides, Chromium, Copper.	West Virginia - Hazardous Substance List: Chromium (Soluble Chromic Salts), Copper (fume).
Kansas - Section 302/313 List: Arsenic and Compounds, Chromium, Copper and Compounds.	North Dakota - List of Hazardous Chemicals, Reportable Quantities: Arsenic Acid, chromium, Copper and Compounds.	Wisconsin - Toxic and Hazardous Substances: Chromium compounds, Copper (fume).
Massachusetts - Substance List: Arsenic, Chromium, Copper.		

CALIFORNIA SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT (PROPOSITION 65): Arsenic and Chromium are on the California Proposition 65 Lists as chemicals known to the State of California to cause cancer, birth defects, and other reproductive harm.

LABELING (Precautionary Statements):

ANSI STANDARD LABEL INFORMATION (Z129.1):

DANGER! POISON! LIQUID AND MIST CAUSE SEVERE IRRITATION TO ALL BODY TISSUE. PROLONGED CONTACT MAY RESULT IN BURNS. MAY BE FATAL IF SWALLOWED. HARMFUL OR FATAL IF INHALED. MAY CAUSE LUNG, KIDNEY, LIVER, AND BLOOD DAMAGE. CAN CAUSE ALLERGIC SKIN OR RESPIRATORY REACTIONS. CANCER AND BIRTH DEFECT HAZARD. Risk of cancer depends on duration and level of exposure. Do not get into eyes, on skin or clothing. Avoid prolonged or repeated skin contact. Avoid breathing spray or mist. Do not take internally. Use with adequate ventilation and employ respiratory protection when exposed to the mist or spray. When handling, wear chemical splash goggles, face shield, rubber gloves, protective clothing, and appropriate respiratory protection. Do not transfer to unlabeled containers. Wash thoroughly after handling. Keep container closed when not in use. **FIRST-AID: POISON. CALL A PHYSICIAN, CONTACT POISON CONTROL CENTER, or CALL 911.** In case of contact, immediately flush skin or eyes for at least 15 minutes. If inhaled, move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. If ingested, do not induce vomiting. **IN CASE OF FIRE:** Use dry chemical, CO₂, or alcohol foam. **IN CASE OF SPILL:** Neutralize residue with acid neutralizing agent (e.g., soda ash). Place residue in suitable container. Refer to MSDS for additional information.

3. HAZARD IDENTIFICATION

EMERGENCY OVERVIEW: This green-gray to yellow solid is toxic and the liquid is potentially corrosive. This solution can irritate, redden, and potentially burn skin, eyes, and other contaminated tissue. Compounds of this product (Chromium and Arsenic) are confirmed human carcinogens. This product is not flammable or reactive; however, if exposed to high temperatures, toxic decomposition products (e.g., arsenic oxides, chromium compounds, and copper compounds) will be generated. Persons who respond to releases of this product must protect themselves from inhalation of the vapors or mists, especially in areas, which are downwind of the spill. Extreme caution must be used when responding to spills. Emergency responders must wear the proper personal protective equipment suitable for the situation to which they are responding.

SYMPTOMS OF OVER-EXPOSURE BY ROUTE OF EXPOSURE: The most significant routes of occupational overexposure are inhalation, and contact with skin and eyes. The symptoms of over-exposure to this product are as follows:

INHALATION: If vapors, mists or sprays of this solution are inhaled, this product may cause pulmonary irritation. Damage to the respiratory system tissue may also occur, especially after prolonged or repeated exposures. Symptoms may include coughing, breathing difficulty, a sore throat, laryngitis, headache, nausea, and vomiting. A "hole" in the nasal septum can develop as a result of repeated inhalation exposures. Pulmonary edema, chemical pneumonitis, and other adverse health consequences may occur after severe overexposures. Severe exposures can be fatal.

It is important to note that high, repeated overexposures to components of this product can cause severe health effects. Chronic overexposure to Arsenic can cause nerve damage, with "pins and needles" numbness and weakness of the arms and legs. There have also been reports of adverse effects on the liver, kidneys, cardiovascular system, and blood systems that are associated with chronic overexposure to arsenic compounds, as well as Chromium. Subsequently, there is a potential for serious health consequences (e.g., cirrhosis, kidney failure, gangrene, anemia) from chronic overexposure to this product. Chromium may be a respiratory sensitizer, causing the development of asthma and other allergy-like reactions. Arsenic and Chromium are both confirmed human carcinogens (potentially causing lung and throat cancer).

CONTACT WITH SKIN or EYES: Contact with the eyes will cause moderate to severe irritation, pain, reddening, and watering. Blindness may occur, especially after prolonged contact. Skin contact may cause reddening, discomfort, and moderate to severe irritation. Skin contact may cause chemical burns (especially after prolonged contact); blistering of the skin and possible scarring could occur. Skin contact with Arsenic can result in darkening or loss of pigment in affected areas; overexposure to this substance may also result in white lines in nails. Due to the presence of Chromium, prolonged or repeated skin contact can lead to the development of skin ulcers and lesions (especially at base of nails and knuckles) allergy-like symptoms (e.g., dermatitis). "Chrome ulcers" may last for years after exposure ends, if not treated early.




SKIN ABSORPTION: Skin absorption is not a significant route of exposure for any component of this product.

INGESTION: Ingestion is not anticipated to be a likely route of exposure to this product. If ingestion does occur, irritation and burns of the mouth, throat, esophagus, and other tissues of the digestive system will occur immediately upon contact. Components of this product (Arsenic and Chromium) are toxic by ingestion. Symptoms of such over-exposure can include nausea, vomiting, diarrhea. Chronic swallowing of this product (as may occur in situations involving poor hygiene practices) can result in symptoms of exposure described for "Inhalation". Ingestion of this product may be fatal.

INJECTION: Accidental injection of this product, via laceration or puncture by a contaminated object, may cause pain and irritation in addition to the wound. Symptoms described in "Inhalation" or "Ingestion" may also occur.

HEALTH EFFECTS OR RISKS FROM EXPOSURE: An Explanation in Lay Terms. In the event of exposure, the following symptoms may be observed:

ACUTE: This solution is highly toxic and can be moderately to severely irritating and damaging to eyes, skin, mucous membranes, and any other exposed tissue. Prolonged skin contact may cause chemical burns, blisters, and scars; eye contact may cause blindness. If inhaled, irritation and damage of the respiratory system may occur, with coughing, and breathing difficulty. Overexposures by inhalation and ingestion may be fatal.

HAZARDOUS MATERIAL INFORMATION SYSTEM			
HEALTH		(BLUE)	3
FLAMMABILITY		(RED)	0
REACTIVITY		(YELLOW)	0
PROTECTIVE EQUIPMENT		X	
EYES	RESPIRATORY	HANDS	BODY
	SEE SECTION 8		
For routine wood-treatment procedures.			

See Section 16 for Definition of Ratings

3. HAZARD IDENTIFICATION (Continued)

CHRONIC: Compounds of this product (Chromium and Arsenic Acid) are confirmed human carcinogens. Persistent irritation, dermatitis (reddening and inflammation of the skin), other allergy-like skin reactions, and ulcers may result from repeated exposures to this solution. Chronic inhalation exposure may result in nervous system effects and allergic respiratory reactions (e.g., asthma). Chronic exposure may also result in liver, kidney, and blood effects. See Section 11 (Toxicological Information) for additional data.

TARGET ORGANS: Acute: Skin, eyes, respiratory system, reproductive system. Chronic: nervous system, cardiovascular system, blood, kidneys.

PART II

4. FIRST-AID MEASURES

SKIN EXPOSURE: If the product contaminates the skin, immediately decontaminate the affected area with running water. The minimum recommended flushing time is at least 15 minutes. If necessary, remove exposed or contaminated clothing, taking care not to contaminate eyes.

EYE EXPOSURE: If this product enters the eyes, open the contaminated individual's eyes while under gentle running water. Use sufficient force to open eyelids. Have the contaminated individual "roll" eyes. Minimum flushing is for 15 minutes.

INHALATION If vapors, mists or sprays of this product are inhaled, remove the contaminated individual to fresh air. If necessary, use artificial respiration to support vital functions. Remove or cover gross contamination to avoid exposure to rescuers.

INGESTION: If this product is swallowed, **CALL PHYSICIAN OR POISON CONTROL CENTER FOR MOST CURRENT INFORMATION.** If professional advice is not available, do not induce vomiting. Victim should drink milk, egg whites, or large quantities of water. Never induce vomiting or give diluents (milk or water) to someone who is unconscious, having convulsions, or unable to swallow.

Contaminated individuals must be taken for medical attention. Rescuers should be taken for medical attention, if necessary. Take a copy of the label and MSDS to physician or health professional with victim.

5. FIRE-FIGHTING MEASURES

FLASH POINT: Not applicable.

AUTOIGNITION TEMPERATURE: Not applicable.

FLAMMABLE LIMITS (in air by volume, %):

Lower (LEL): Not applicable.

Upper (UEL): Not applicable.

FIRE EXTINGUISHING MATERIALS: This product is not flammable. Use fire extinguishing material appropriate for the surrounding area.

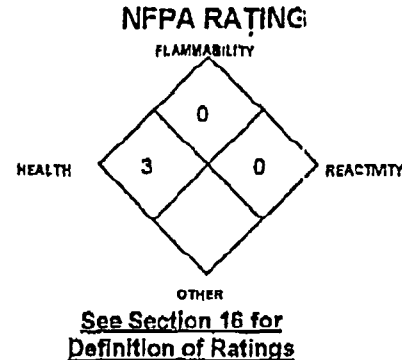
Water Spray: YES **Carbon Dioxide:** YES **Foam:** YES
Dry Chemical: YES **Halon:** YES **Other:** Any "ABC" Class.

UNUSUAL FIRE AND EXPLOSION HAZARDS: This product is toxic and severely irritating and presents a severe contact-hazard to firefighters. When involved in a fire and exposed to extremely high temperatures, the components of this product will decompose to produce extremely irritating vapors and toxic gases (e.g., arsenic compounds, chromium oxides, copper compounds).

Explosion Sensitivity to Mechanical Impact: Not applicable.

Explosion Sensitivity to Static Discharge: Not applicable.

SPECIAL FIRE-FIGHTING PROCEDURES: Incipient fire responders should wear eye protection. Structural firefighters must wear Self-Contained Breathing Apparatus and full protective equipment. If possible, prevent runoff water from entering storm drains, bodies of water, or other environmentally sensitive areas. If necessary, neutralize any contaminated fire-response equipment with sodium bicarbonate or other acid-neutralizing agent before returning such equipment to service.



6. ACCIDENTAL RELEASE MEASURES

SPILL AND LEAK RESPONSE: In case of a spill, clear the affected area, protect people. Uncontrolled releases should be responded to by trained personnel using pre-planned procedures. Proper protective equipment should be used. In case of a spill, clear the affected area, protect people.

6. ACCIDENTAL RELEASE MEASURES (Continued)

In terms of small, incidental releases (e.g., 1 gallon from a leaking container), the minimum personal protective equipment should be as follows: gloves, goggles, face shield, and appropriate body protection (e.g., boots, Tyvek suit). Respiratory protection (e.g., air-purifying respirator with a high efficiency particulate filter) must be worn if splashes or sprays will be generated. For large, non- incidental releases (e.g., 55-gallon drum), Minimum Personal Protective should be **Level B: triple-gloves (rubber gloves and nitrile gloves, over latex gloves), chemically resistant suit and boots, hard-hat, and Self Contained Breathing Apparatus**.

Absorb spilled liquid with polypads or other suitable absorbent materials. Neutralize area with sodium bicarbonate or other acid neutralizing agent. If necessary, dike the spill to prevent releases from contaminating environmentally sensitive areas. Rinse area with water. Test area with litmus paper. If the litmus paper turns red, repeat neutralization process. Decontaminate the area thoroughly. Place all spill residue in an appropriate container and seal. Dispose residue in accordance with U.S. Federal, State, or local procedures and appropriate Canadian standards (see Section 13, Disposal Considerations).

PART III

7. HANDLING and STORAGE

WORK AND HYGIENE PRACTICES: As with all chemicals, avoid getting this product ON YOU or IN YOU. Wash thoroughly after handling this product. Do not eat, drink, smoke, or apply cosmetics while handling this product. Avoid breathing vapors or mists generated by this product. Use in a well-ventilated location. Remove contaminated clothing immediately. Appropriate air monitoring programs, procedures, and record retentions and submissions must be conducted to evaluate the presence of Arsenic in the workplace. Applications of this product are toxic to fish and wildlife (see Section 12, Ecological Information). For terrestrial uses; do not apply this product directly to water, or to areas where surface water is present or to terrestrial areas below the mean high water mark.

STORAGE AND HANDLING PRACTICES – NON-BULK CONTAINERS: All employees who handle this material should be trained to handle it safely. Open containers and drums slowly, on a stable surface. Open drum bunks carefully, to relieve any pressure build-up which may have developed during storage. All containers of this product must be properly labeled. Empty containers may contain residual amounts of this product; therefore, empty containers should be handled with care. Store containers in a cool, dry location, away from direct sunlight, sources of intense heat, or where freezing is possible. Store away from incompatible materials (see Section 10, Stability and Reactivity). Material should be stored in secondary containers or in a diked area, as appropriate. Use corrosion-resistant structural materials, lighting, and ventilation systems in the storage area. Floors should be sealed to prevent absorption of this material. Keep container tightly closed when not in use. Inspect all incoming containers before storage to ensure that containers are properly labeled and are not damaged.

PROTECTIVE PRACTICES DURING MAINTENANCE OF CONTAMINATED EQUIPMENT: Follow practices indicated in Section 6 (Accidental Release Measures). Make certain that application equipment is locked and tagged-out safely, if necessary. Collect all rinsates and dispose of according to applicable U.S. Federal, State, or local procedures and appropriate Canadian standards (see Section 13, Disposal Considerations).

8. EXPOSURE CONTROLS - PERSONAL PROTECTION

VENTILATION AND ENGINEERING CONTROLS: Use with adequate ventilation to prevent inhalation of sprays or mists. All operations should be directed at minimizing the generation of aerosols, sprays, or mists. Use corrosion-resistant ventilation and other engineering controls. Eyewash stations/safety showers should be near use where and storage areas.

RESPIRATORY PROTECTION: Maintain airborne contaminant concentrations below guidelines listed in Section 2 (Composition and Information on Ingredients) if applicable. Individuals working in the work area of an arsenical wood treatment plant must wear properly fitting, well-maintained high efficiency respirators, if the level of inorganic arsenic exceeds 10 micrograms per cubic meter of air averaged over an eight-hour work period. If respiratory protection is needed, use only protection authorized in the U.S. Federal OSHA Standard (29 CFR 1910.134), applicable J.S. State regulations, or the appropriate standards of Canada and its Provinces. Use supplied air respiration protection if oxygen levels are below 19.5% or are unknown.

8. EXPOSURE CONTROLS - PERSONAL PROTECTION (Continued)

RESPIRATORY PROTECTION (continued): The following NIOSH guidelines are for Inorganic Arsenic Compounds, provided for additional information:

AT CONCENTRATIONS ABOVE THE NIOSH REL, OR WHERE THERE IS NO REL, AT ANY DETECTABLE CONCENTRATION: Positive pressure, full-facepiece SCBA; or positive pressure, full-facepiece SAR with an auxiliary positive pressure SCBA.

ESCAPE: Full-facepiece respirator with high-efficiency particulate filter(s); or escape-type SCBA.

NOTE: NIOSH has classified this material as a potential carcinogen, according to specific NIOSH criteria. This classification is reflected in these recommendations for respiratory protection, which specify that only the most reliable and protective respirators be worn.

EYE PROTECTION: Splash goggles or safety glasses. Wear face shield for operations involving more than 1 gallon of this solution in which splashes or sprays can be generated.

HAND PROTECTION: Wear Neoprene gloves for routine industrial use. Use triple gloves for spill response, as stated in Section 6 (Accidental Release Measures) of this MSDS.

BODY PROTECTION: Use body protection appropriate for task (i.e. cover-alls, or rubber apron).

9. PHYSICAL and CHEMICAL PROPERTIES

RELATIVE VAPOR DENSITY (air = 1): Not available.

EVAPORATION RATE (n-BuAc = 1): Not Applicable

SPECIFIC GRAVITY (water = 1): Not applicable

MELTING/FREEZING POINT: Not applicable

SOLUBILITY IN WATER: Not applicable

BOILING POINT: > 100°C (> 212°F)

APPEARANCE AND COLOR: Green-gray to yellow solids.

pH: 3 - 7

10. STABILITY and REACTIVITY

STABILITY: Stable.

DECOMPOSITION PRODUCTS: Arsenic, chromium, and copper compounds.

MATERIALS WITH WHICH SUBSTANCE IS INCOMPATIBLE: Strong acids, strong bases, strong reducing reagents, halogens, metals (e.g., aluminum, Copper, iron, brass, and zinc).

HAZARDOUS POLYMERIZATION: Will not occur.

CONDITIONS TO AVOID: Avoid exposure to extreme temperatures and contact with incompatible chemicals.

PART IV**11. TOXICOLOGICAL INFORMATION**

TOXICITY DATA: Additional toxicology data for components of this product are provided below.

ARSENIC:

Cytogenetic Analysis-Human: leukocyte 7200 nmol/L

Cytogenetic Analysis-Human: fibroblast 100 ppb

TDLo (Intraperitoneal-Rat) = 30 mg/kg (9D preg): Teratogenic effects

LD₅₀ (Oral-Rat) = 48 mg/kg

LDLo (Oral-Dog, adult) = 10 mg/kg

LDLo (Oral-Rabbit, adult) = 5 mg/kg

LDLo (Oral-Pigeon) = 100 mg/kg

LDLo (Oral-Chicken, adult) = 125 mg/kg

CHROMIUM:

Mutation in Microorganisms-*Salmonella typhimurium* 1 mmol/L

Cytogenetic Analysis-Human: leukocyte 2 mg/L

TDLo (Subcutaneous-Mouse) = 20 mg/kg (8D preg): Teratogenic effects

TDLo (Intravenous-Hamster) = 7500 mg/kg

(female 8D post): Reproductive effects

TCLo (Inhalation-Human) = 110 mg/m³/3 years,

continuous: Carcinogenic effects

TDLo (Implant-Rat) = 125 mg/kg: Carcinogen

CHROMIUM (continued):

TCLo (Inhalation-Mouse) = 3480 mg/m³/2 hours/1 year - Intermittent: Equivocal tumorigenic agent

TCLo (Inhalation-Human) = 110 mg/m³

LD₅₀ (Oral-Rat) = 80 mg/kg

LD₅₀ (Oral-Mouse) = 127 mg/kg

LD₅₀ (Intraperitoneal-Mouse) = 14 mg/kg

LDLo (Subcutaneous-Mouse) = 20 mg/kg

COPPER OXIDE:

LDLo (Intratracheal-Rat) = 278 mg/kg

11. TOXICOLOGICAL INFORMATION (Continued)

SUSPECTED CANCER AGENT: This product's ingredients are found on the following lists:

ARSENIC:

EPA-A; Human Carcinogen
IARC-1; Carcinogenic to Humans
MAK-A1; Capable of Inducing Malignant Tumors
NIOSH-X; Carcinogen
NTP-1; Known to be a Carcinogen
OSHA-X; Carcinogen

CHROMIUM:

EPA-A; Human Carcinogen
IARC-1; Carcinogenic to Humans
MAK-A2; Unmistakably Carcinogenic in Human Experiments Only
NIOSH-X; Carcinogen
NTP-1; Known to be a Carcinogen

This product's other ingredients are not found on the following lists: U.S. FEDERAL OSHA Z LIST, NTP, IARC, CAL/OSHA, and therefore are not considered to be, or suspected to be, cancer-causing agents by these agencies.

IRRITANCY OF PRODUCT: This product is moderately to severely irritating and potentially corrosive to contaminated tissues.

SENSITIZATION TO THE PRODUCT: Chromium is a potential respiratory and skin sensitizer after prolonged or repeated exposure.

REPRODUCTIVE TOXICITY INFORMATION: Listed below is information concerning the effects of this product and its components on the human reproductive system.

Mutagenicity: Arsenic and Chromium, component of this products, must be regarded as potential human mutagens, based on animal experimentation.

Embryotoxicity: This product is not reported to produce embryotoxic effects in humans. Specific components of this product may produce embryotoxic effects. See "Teratogenicity" for additional information.

Teratogenicity: Arsenic Acid, a component of this product, must be regarded as a potential human teratogen, based on animal experimentation. Observed effects include decreased fetal weights; however, it is important to note that the specific effects of Arsenic on human teratogenicity have not been well studied. Chromium, another component of this product, has been found to be teratogenic and embryotoxic when given in intraperitoneal or intravenous doses to test animals.

Reproductive Toxicity: This product is not reported to produce adverse reproductive effects in humans

A *mutagen* is a chemical which causes permanent changes to genetic material (DNA) such that the changes will propagate through generational lines. An *embryotoxin* is a chemical which causes damage to a developing embryo (i.e. within the first eight weeks of pregnancy in humans), but the damage does not propagate across generational lines. A *teratogen* is a chemical which causes damage to a developing fetus, but the damage does not propagate across generational lines. A *reproductive toxin* is any substance which interferes in any way with the reproductive process.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Skin disorders may be aggravated by exposure to this product. Overexposures to aerosols, mists, or sprays of this product may aggravate respiratory conditions. Additionally, any disorder involving the "Target Organs" may be aggravated by overexposures to this substance.

RECOMMENDATIONS TO PHYSICIANS: Treat symptoms and eliminate overexposure. The following evaluations may be useful: examination of the nose, skin, eyes, nails, and nervous system; urine test for arsenic, kidney or lung function tests. An evaluation by a qualified allergist may also be necessary.

12. ECOLOGICAL INFORMATION

EFFECT OF CHEMICAL ON AQUATIC LIFE: This product is a toxic pesticide and can be fatal to exposed aquatic life. The following aquatic toxicity data are available for components of this product.

ARSENIC ACID:

LC₅₀ (striped bass) = 96 hours, 30.5 - 51.2 mg/L
LC₅₀ (*Daphnia magna*) = 48 hours, 2.4, 4.5 mg/L
LC₅₀ (*Ceriodaphnia reticulata*) = 48 hours, 1.3 mg/L
LC₅₀ (Fathead minnow) = 96 hours, 12.8 - 82.4 mg/L
LC₅₀ (Fathead minnow) = 336 hours, 10.556 mg/L
LC₅₀ (*Ceriodaphnia dubia*) = 48 hours, 1.3 mg/L
LC₅₀ (Brook trout) = 96 hours, 14.96 mg/L
LC₅₀ (Goldfish) = 96 hours, 26.04 mg/L
LC₅₀ (Goldfish) = 336 hours, 18.618 mg/L
LC₅₀ (Channel catfish) = 96 hours, 15.0 - 19 mg/L
LC₅₀ (Flagfish) = 96 hours, 14 - 29 mg/L
LC₅₀ (Bluegill) = 96 hours, 15 - 42 mg/L
LC₅₀ (Bluegill) = 336 mg/L, 18.328 mg/L
LC₅₀ (Rainbow trout) = 144 hours, 13.3 mg/L
LC₅₀ (Brook trout) = 262 hours, 10.44 mg/L
LC₅₀ (Spottail shiner) = 72 hours, 27 mg/L
LC₅₀ (Largemouth bass) = 192 hours, 42.1 mg/L
EC₅₀ (Snail, *Aplexa hypnorum*) = 96 hours, 24.5 mg/L
EC₅₀ (*Ceriodaphnia reticulata*) = 48 hours, 1.8 mg/L

EC₅₀ (*Daphnia magna*) = 48 mg/L, 1 - 6 mg/L
EC₅₀ (*Daphnia pulex*) = 48 mg/L, 1 - 2 mg/L
EC₅₀ (*Simocephalus serrulatus*) = 48 hours, 0.812 mg/L
EC₅₀ (*Gammarus pseudolimnaeus*) = 96 hours, 0.874 mg/L
EC₅₀ (Stonefly) = 96 hours = 22.04 mg/L
EC₅₀ (Midgic) = 96 hours, 97 mg/L
EC₅₀ (*Daphnia magna*) 48 hours, 1 - 5 mg/L

CHROMIUM:

EC₅₀ (*Salmo gairdneri* (rainbow trout, embryo larva)) = 190 µg/L, as chromium, 28 days (death and deformity).

EC₅₀ (*Carassius auratus* (goldfish embryo larva)) = 660 µg/L, as chromium, 7 days (death and deformity).

LC₅₀ (*Ophryotrocha didadema* (polychelate worm)) = 7500 µg/L, as chromium, static unmeasured method.

LC₅₀ (*Ctenodrilus seratus* (polychelate worm)) = 4300 µg/L, as chromium, static unmeasured method.

LC₅₀ (*Capitella capitata* (polychelate worm, larval)) = 8000 µg/L, as chromium, static unmeasured method.

LC₅₀ (*Capitella capitata* (polychelate worm, adult)) = 5000 µg/L, as chromium, static unmeasured method.

Mean Acute Values for Saltwater Species:

Nassarius obsoletus (mud snail) = 105,000 µg/L.

Fundulus heteroclitus (mummichog) = 74,010 µg/L.

Menidia menidia (Atlantic silverside) = 15,280 µg/L.

Crassostrea gigas (Pacific oyster) = 4538 µg/L.

Mytilus edulis (blue mussel) = 4469 µg/L.

Mysidopsis bahia (mysid shrimp) = 2030 µg/L.

Nereis virens (polychelate worm) = 2000 µg/L.

Toxic Threshold: *Daphnia magna* = 0.016-0.7 ppm [Cr(IV)].

13. DISPOSAL CONSIDERATIONS

PREPARING WASTES FOR DISPOSAL: Waste disposal must be in accordance with appropriate U.S. Federal, State, and local regulations, or those of Canada and its Provinces. This product, if unaltered by use, may be disposed of by treatment at a permitted facility or as advised by your local hazardous waste regulatory authority.

U.S. EPA WASTE NUMBER: The following waste numbers may be applicable: D002 (Characteristic, Corrosive), D004 (Arsenic, 5.0 mg/L), D007 (Chromium, 5.0 mg/L).

CONTAINER DISPOSAL: Triple rinse (or equivalent), then offer the container for recycling or reconditioning. Alternatively, puncture the container and dispose of in a procedure approved by State, Province and local authorities.

14. TRANSPORTATION INFORMATION

THIS MATERIAL IS HAZARDOUS AS DEFINED BY 49 CFR 172.101 BY THE U.S. DEPARTMENT OF TRANSPORTATION. For shipments containing 1 lb. of Arsenic or more:

PROPER SHIPPING NAME: R.Q. Arsenic compounds, liquid, n.o.s.

HAZARD CLASS NUMBER and DESCRIPTION: 6.1 (Toxic)

UN IDENTIFICATION NUMBER: UN 1556

PACKING GROUP: PG III

DOT LABEL(S) REQUIRED: Poison

NORTH AMERICAN EMERGENCY RESPONSE GUIDEBOOK NUMBER (1996): 152

MARINE POLLUTANT: No component of this product is listed as a marine pollutant by the D.O.T. (49 CFR 172.101, Appendix B).

TRANSPORT CANADA TRANSPORTATION OF DANGEROUS GOODS REGULATIONS: THIS MATERIAL IS CONSIDERED AS DANGEROUS GOODS. Use the above information for the preparation of Canadian shipments.

15. REGULATORY INFORMATION

ADDITIONAL U.S. REGULATIONS:

U.S. SARA REPORTING REQUIREMENTS: The components of this product are subject to the reporting requirements of Sections 302, 304, and 313 of Title III of the Superfund Amendments and Reauthorization Act, and are listed as follows:

CHEMICAL NAME	SARA 302 (40 CFR 355, Appendix A)	SARA 304 (40 CFR Table 302.4)	SARA 313 (40 CFR 372.65)
ARSENIC ACID	NO	YES	YES (as Arsenic Compound)
CHROMIUM	NO	NO	YES (as Chromium Compound)
COPPER OXIDE	NO	NO	YES (as Copper Compound)

U.S. SARA THRESHOLD PLANNING QUANTITY: Not applicable.

U.S. CERCLA REPORTABLE QUANTITY (RQ): Arsenic= 1 lb.

U.S. TSCA INVENTORY STATUS: This product is not subject to the requirements of the TSCA because it is regulated under the Federal Insecticide, Fungicide, and Rodenticide Act.

The OSHA Inorganic Arsenic Standard (29 CFR 1910.1018) is not applicable to employee exposures in agriculture or resulting from pesticide application, the treatment of wood with preservatives or the utilization of arsenically preserved wood. However, it is recommended that this Standard be reviewed and the guidelines be implemented where applicable and practical.

U.S. STATE REGULATORY INFORMATION: Components in this product, specifically listed in Section 2 (Composition and Information on Ingredients), are covered under specific State regulations, as denoted below:

<p>Alaska - Designated Toxic and Hazardous Substances; Chromium and Chromates.</p> <p>California - Permissible Exposure Limits for Chemical Contaminants: Arsenic Inorganic Compounds, Chromium Compounds, Copper Salts (dust and mist).</p> <p>Florida - Substance List: Arsenic, Chromium, Copper (fume, dust, mist).</p> <p>Illinois - Toxic Substance List: Arsenic Compounds, Chromic Salts, Copper.</p> <p>Kansas - Section 302/313 List: Arsenic and Compounds, Chromium, Copper and Compounds.</p> <p>Massachusetts - Substance List: Arsenic, Chromium, Copper.</p>	<p>Michigan - Critical Materials Register: Arsenic, chromium compounds.</p> <p>Minnesota - List of Hazardous Substances: Arsenic and Soluble Compounds, Chromium and Chromates, Copper (dust, mist, fumes).</p> <p>Missouri - Employer Information/Toxic Substance List: Arsenic Acid, Chromium, Copper.</p> <p>New Jersey - Right to Know Hazardous Substance List: Arsenic Acid, arsenical pesticides, Chromium, Copper.</p> <p>North Dakota - List of Hazardous Chemicals, Reportable Quantities: Arsenic Acid, chromium, Copper and Compounds.</p>	<p>Pennsylvania - Hazardous Substance List: Arsenic, Chromium, Copper.</p> <p>Rhode Island - Hazardous Substance List: Arsenic, Chromium, Copper.</p> <p>Texas - Hazardous Substance List: Chromium and Chromates, Copper (fume).</p> <p>West Virginia - Hazardous Substance List: Chromium (Soluble Chromic Salts), Copper (fume).</p> <p>Wisconsin - Toxic and Hazardous Substances: Chromium compounds, Copper (fume).</p>
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CALIFORNIA SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT (PROPOSITION 65): Arsenic and Chromium are on the California Proposition 65 Lists as chemicals known to the State of California to cause cancer, birth defects, and other reproductive harm.

LABELING (Precautionary Statements):

ANSI STANDARD LABEL INFORMATION (Z129.1):

DANGER! POISON! LIQUID AND MIST CAUSE SEVERE IRRITATION TO ALL BODY TISSUE. PROLONGED CONTACT MAY RESULT IN BURNS. MAY BE FATAL IF SWALLOWED. HARMFUL OR FATAL IF INHALED. MAY CAUSE LUNG, KIDNEY, LIVER, AND BLOOD DAMAGE. CAN CAUSE ALLERGIC SKIN OR RESPIRATORY REACTIONS. CANCER AND BIRTH DEFECT HAZARD. Risk of cancer depends on duration and level of exposure. Do not get into eyes, on skin or clothing. Avoid prolonged or repeated skin contact. Avoid breathing spray or mist. Do not take internally. Use with adequate ventilation and employ respiratory protection when exposed to the mist or spray. When handling, wear chemical splash goggles, face shield, rubber gloves, protective clothing, and appropriate respiratory protection. Do not transfer to unlabeled containers. Wash thoroughly after handling. Keep container closed when not in use. **FIRST-AID: POISON. CALL A PHYSICIAN. CONTACT POISON CONTROL CENTER, or CALL 911.** In case of contact, immediately flush skin or eyes for at least 15 minutes. If inhaled, move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. If ingested, do not induce vomiting. **IN CASE OF FIRE:** Use dry chemical, CO₂, or alcohol foam. **IN CASE OF SPILL:** Neutralize residue with acid neutralizing agent (e.g., soda ash). Place residue in suitable container. Refer to MSDS for additional information.

3. HAZARD IDENTIFICATION

EMERGENCY OVERVIEW: This green-gray to yellow solid is toxic and the liquid is potentially corrosive. This solution can irritate, redden, and potentially burn skin, eyes, and other contaminated tissue. Compounds of this product (Chromium and Arsenic) are confirmed human carcinogens. This product is not flammable or reactive; however, if exposed to high temperatures, toxic decomposition products (e.g., arsenic oxides, chromium compounds, and copper compounds) will be generated. Persons who respond to releases of this product must protect themselves from inhalation of the vapors or mists, especially in areas, which are downwind of the spill. Extreme caution must be used when responding to spills. Emergency responders must wear the proper personal protective equipment suitable for the situation to which they are responding.

SYMPTOMS OF OVER-EXPOSURE BY ROUTE OF EXPOSURE: The most significant routes of occupational overexposure are inhalation, and contact with skin and eyes. The symptoms of over-exposure to this product are as follows:

INHALATION: If vapors, mists or sprays of this solution are inhaled, this product may cause pulmonary irritation. Damage to the respiratory system tissue may also occur, especially after prolonged or repeated exposures. Symptoms may include coughing, breathing difficulty, a sore throat, laryngitis, headache, nausea, and vomiting. A "hole" in the nasal septum can develop as a result of repeated inhalation exposures. Pulmonary edema, chemical pneumonitis, and other adverse health consequences may occur after severe overexposures. Severe exposures can be fatal.

It is important to note that high, repeated overexposures to components of this product can cause severe health effects. Chronic overexposure to Arsenic can cause nerve damage, with "pins and needles" numbness and weakness of the arms and legs. There have also been reports of adverse effects on the liver, kidneys, cardiovascular system, and blood systems that are associated with chronic overexposure to arsenic compounds, as well as Chromium. Subsequently, there is a potential for serious health consequences (e.g., cirrhosis, kidney failure, gangrene, anemia) from chronic overexposure to this product. Chromium may be a respiratory sensitizer, causing the development of asthma and other allergy-like reactions. Arsenic and Chromium are both confirmed human carcinogens (potentially causing lung and throat cancer).

CONTACT WITH SKIN or EYES: Contact with the eyes will cause moderate to severe irritation, pain, reddening, and watering. Blindness may occur, especially after prolonged contact. Skin contact may cause reddening, discomfort, and moderate to severe irritation. Skin contact may cause chemical burns (especially after prolonged contact); blistering of the skin and possible scarring could occur. Skin contact with Arsenic can result in darkening or loss of pigment in affected areas; overexposure to this substance may also result in white lines in nails. Due to the presence of Chromium, prolonged or repeated skin contact can lead to the development of skin ulcers and lesions (especially at base of nails and knuckles) allergy-like symptoms (e.g., dermatitis). "Chrome ulcers" may last for years after exposure ends, if not treated early.




SKIN ABSORPTION: Skin absorption is not a significant route of exposure for any component of this product.

INGESTION: Ingestion is not anticipated to be a likely route of exposure to this product. If ingestion does occur, irritation and burns of the mouth, throat, esophagus, and other tissues of the digestive system will occur immediately upon contact. Components of this product (Arsenic and Chromium) are toxic by ingestion. Symptoms of such overexposure can include nausea, vomiting, diarrhea. Chronic swallowing of this product (as may occur in situations involving poor hygiene practices) can result in symptoms of exposure described for "Inhalation". Ingestion of this product may be fatal.

INJECTION: Accidental injection of this product, via laceration or puncture by a contaminated object, may cause pain and irritation in addition to the wound. Symptoms described in "Inhalation" or "Ingestion" may also occur.

HEALTH EFFECTS OR RISKS FROM EXPOSURE: An Explanation in Lay Terms. In the event of exposure, the following symptoms may be observed:

ACUTE: This solution is highly toxic and can be moderately to severely irritating and damaging to eyes, skin, mucous membranes, and any other exposed tissue. Prolonged skin contact may cause chemical burns, blisters, and scars; eye contact may cause blindness. If inhaled, irritation and damage of the respiratory system may occur, with coughing, and breathing difficulty. Overexposures by inhalation and ingestion may be fatal.

HAZARDOUS MATERIAL INFORMATION SYSTEM			
HEALTH		(BLUE)	3
FLAMMABILITY		(RED)	0
REACTIVITY		(YELLOW)	0
PROTECTIVE EQUIPMENT			X
EYES	RESPIRATORY	HANDS	BODY
	SEE SECTION 8		
For routine wood-treatment procedures.			

See Section 18 for Definition of Ratings

3. HAZARD IDENTIFICATION (Continued)

CHRONIC: Compounds of this product (Chromium and Arsenic Acid) are confirmed human carcinogens. Persistent irritation, dermatitis (reddening and inflammation of the skin), other allergy-like skin reactions, and ulcers may result from repeated exposures to this solution. Chronic inhalation exposure may result in nervous system effects and allergic respiratory reactions (e.g., asthma). Chronic exposure may also result in liver, kidney, and blood effects. See Section 11 (Toxicological Information) for additional data.

TARGET ORGANS: Acute: Skin, eyes, respiratory system, reproductive system. Chronic: nervous system, cardiovascular system, blood, kidneys.

PART II

4. FIRST-AID MEASURES

SKIN EXPOSURE: If the product contaminates the skin, immediately decontaminate the affected area with running water. The minimum recommended flushing time is at least 15 minutes. If necessary, remove exposed or contaminated clothing, taking care not to contaminate eyes.

EYE EXPOSURE: If this product enters the eyes, open the contaminated individual's eyes while under gentle running water. Use sufficient force to open eyelids. Have the contaminated individual "roll" eyes. Minimum flushing is for 15 minutes.

INHALATION If vapors, mists or sprays of this product are inhaled, remove the contaminated individual to fresh air. If necessary, use artificial respiration to support vital functions. Remove or cover gross contamination to avoid exposure to rescuers.

INGESTION: If this product is swallowed, CALL PHYSICIAN OR POISON CONTROL CENTER FOR MOST CURRENT INFORMATION. If professional advice is not available, do not induce vomiting. Victim should drink milk, egg whites, or large quantities of water. Never induce vomiting or give diluents (milk or water) to someone who is unconscious, having convulsions, or unable to swallow.

Contaminated individuals must be taken for medical attention. Rescuers should be taken for medical attention, if necessary. Take a copy of the label and MSDS to physician or health professional with victim.

5. FIRE-FIGHTING MEASURES

FLASH POINT: Not applicable.

AUTOIGNITION TEMPERATURE: Not applicable.

FLAMMABLE LIMITS (in air by volume, %):

Lower (LEL): Not applicable.

Upper (UEL): Not applicable.

FIRE EXTINGUISHING MATERIALS: This product is not flammable. Use fire extinguishing material appropriate for the surrounding area.

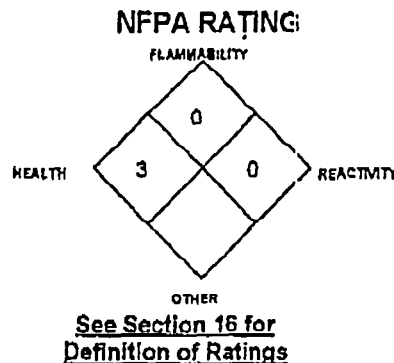
Water Spray: YES **Carbon Dioxide:** YES **Foam:** YES
Dry Chemical: YES **Halon:** YES **Other:** Any "ABC" Class.

UNUSUAL FIRE AND EXPLOSION HAZARDS: This product is toxic and severely irritating and presents a severe contact-hazard to firefighters. When involved in a fire and exposed to extremely high temperatures, the components of this product will decompose to produce extremely irritating vapors and toxic gases (e.g., arsenic compounds, chromium oxides, copper compounds).

Explosion Sensitivity to Mechanical Impact: Not applicable.

Explosion Sensitivity to Static Discharge: Not applicable.

SPECIAL FIRE-FIGHTING PROCEDURES: Incipient fire responders should wear eye protection. Structural firefighters must wear Self-Contained Breathing Apparatus and full protective equipment. If possible, prevent runoff water from entering storm drains, bodies of water, or other environmentally sensitive areas. If necessary, neutralize any contaminated fire-response equipment with sodium bicarbonate or other acid-neutralizing agent before returning such equipment to service.



6. ACCIDENTAL RELEASE MEASURES

SPILL AND LEAK RESPONSE: In case of a spill, clear the affected area, protect people. Uncontrolled releases should be responded to by trained personnel using pre-planned procedures. Proper protective equipment should be used. In case of a spill, clear the affected area, protect people.

6. ACCIDENTAL RELEASE MEASURES (Continued)

In terms of small, incidental releases (e.g., 1 gallon from a leaking container), the minimum personal protective equipment should be as follows: gloves, goggles, face shield, and appropriate body protection (e.g., boots, Tyvek suit). Respiratory protection (e.g., air-purifying respirator with a high efficiency particulate filter) must be worn if splashes or sprays will be generated. For large, non- incidental releases (e.g., 55-gallon drum), Minimum Personal Protective should be **Level B: triple-gloves (rubber gloves and nitrile gloves, over latex gloves), chemically resistant suit and boots, hard-hat, and Self Contained Breathing Apparatus**.

Absorb spilled liquid with polypads or other suitable absorbent materials. Neutralize area with sodium bicarbonate or other acid neutralizing agent. If necessary, dike the spill to prevent releases from contaminating environmentally sensitive areas. Rinse area with water. Test area with litmus paper. If the litmus paper turns red, repeat neutralization process. Decontaminate the area thoroughly. Place all spill residue in an appropriate container and seal. Dispose residue in accordance with U.S. Federal, State, or local procedures and appropriate Canadian standards (see Section 13, Disposal Considerations).

PART III

7. HANDLING and STORAGE

WORK AND HYGIENE PRACTICES: As with all chemicals, avoid getting this product ON YOU or IN YOU. Wash thoroughly after handling this product. Do not eat, drink, smoke, or apply cosmetics while handling this product. Avoid breathing vapors or mists generated by this product. Use in a well-ventilated location. Remove contaminated clothing immediately. Appropriate air monitoring programs, procedures, and record retentions and submissions must be conducted to evaluate the presence of Arsenic in the workplace. Applications of this product are toxic to fish and wildlife (see Section 12, Ecological Information). For terrestrial uses; do not apply this product directly to water, or to areas where surface water is present or to terrestrial areas below the mean high water mark.

STORAGE AND HANDLING PRACTICES – NON-BULK CONTAINERS: All employees who handle this material should be trained to handle it safely. Open containers and drums slowly, on a stable surface. Open drum bunks carefully, to relieve any pressure build-up which may have developed during storage. All containers of this product must be properly labeled. Empty containers may contain residual amounts of this product; therefore, empty containers should be handled with care. Store containers in a cool, dry location, away from direct sunlight, sources of intense heat, or where freezing is possible. Store away from incompatible materials (see Section 10, Stability and Reactivity). Material should be stored in secondary containers or in a diked area, as appropriate. Use corrosion-resistant structural materials, lighting, and ventilation systems in the storage area. Floors should be sealed to prevent absorption of this material. Keep container tightly closed when not in use. Inspect all incoming containers before storage to ensure that containers are properly labeled and are not damaged.

PROTECTIVE PRACTICES DURING MAINTENANCE OF CONTAMINATED EQUIPMENT: Follow practices indicated in Section 6 (Accidental Release Measures). Make certain that application equipment is locked and tagged-out safely, if necessary. Collect all rinsates and dispose of according to applicable U.S. Federal, State, or local procedures and appropriate Canadian standards (see Section 13, Disposal Considerations).

8. EXPOSURE CONTROLS - PERSONAL PROTECTION

VENTILATION AND ENGINEERING CONTROLS: Use with adequate ventilation to prevent inhalation of sprays or mists. All operations should be directed at minimizing the generation of aerosols, sprays, or mists. Use corrosion-resistant ventilation and other engineering controls. Eyewash stations/safety showers should be near use where and storage areas.

RESPIRATORY PROTECTION: Maintain airborne contaminant concentrations below guidelines listed in Section 2 (Composition and Information on Ingredients) if applicable. Individuals working in the work area of an arsenical wood treatment plant must wear properly fitting, well-maintained high efficiency respirators, if the level of inorganic arsenic exceeds 10 micrograms per cubic meter of air averaged over an eight-hour work period. If respiratory protection is needed, use only protection authorized in the U.S. Federal OSHA Standard (29 CFR 1910.134), applicable J.S. State regulations, or the appropriate standards of Canada and its Provinces. Use supplied air respiration protection if oxygen levels are below 19.5% or are unknown.

8. EXPOSURE CONTROLS - PERSONAL PROTECTION (Continued)

RESPIRATORY PROTECTION (continued): The following NIOSH guidelines are for Inorganic Arsenic Compounds, provided for additional information:

AT CONCENTRATIONS ABOVE THE NIOSH REL, OR WHERE THERE IS NO REL, AT ANY DETECTABLE CONCENTRATION: Positive pressure, full-facepiece SCBA; or positive pressure, full-facepiece SAR with an auxiliary positive pressure SCBA.

ESCAPE: Full-facepiece respirator with high-efficiency particulate filter(s); or escape-type SCBA.

NOTE: NIOSH has classified this material as a potential carcinogen, according to specific NIOSH criteria. This classification is reflected in these recommendations for respiratory protection, which specify that only the most reliable and protective respirators be worn.

EYE PROTECTION: Splash goggles or safety glasses. Wear face shield for operations involving more than 1 gallon of this solution in which splashes or sprays can be generated.

HAND PROTECTION: Wear Neoprene gloves for routine industrial use. Use triple gloves for spill response, as stated in Section 6 (Accidental Release Measures) of this MSDS.

BODY PROTECTION: Use body protection appropriate for task (i.e. cover-alls, or rubber apron).

9. PHYSICAL and CHEMICAL PROPERTIES

RELATIVE VAPOR DENSITY (air = 1): Not available.

EVAPORATION RATE (n-BuAc = 1): Not Applicable

SPECIFIC GRAVITY (water = 1): Not applicable

MELTING/FREEZING POINT: Not applicable

SOLUBILITY IN WATER: Not applicable

BOILING POINT: > 100°C (> 212°F)

APPEARANCE AND COLOR: Green-gray to yellow solids.

pH: 3 - 7

10. STABILITY and REACTIVITY

STABILITY: Stable.

DECOMPOSITION PRODUCTS: Arsenic, chromium, and copper compounds.

MATERIALS WITH WHICH SUBSTANCE IS INCOMPATIBLE: Strong acids, strong bases, strong reducing reagents, halogens, metals (e.g., aluminum, Copper, iron, brass, and zinc).

HAZARDOUS POLYMERIZATION: Will not occur.

CONDITIONS TO AVOID: Avoid exposure to extreme temperatures and contact with incompatible chemicals.

PART IV**11. TOXICOLOGICAL INFORMATION**

TOXICITY DATA: Additional toxicology data for components of this product are provided below.

ARSENIC:

Cytogenetic Analysis-Human: leukocyte 7200 nmol/L

Cytogenetic Analysis-Human: fibroblast 100 ppb

TDLo (Intraperitoneal-Rat) = 30 mg/kg (9D preg): Teratogenic effects

LD₅₀ (Oral-Rat) = 48 mg/kg

LDLo (Oral-Dog, adult) = 10 mg/kg

LDLo (Oral-Rabbit, adult) = 5 mg/kg

LDLo (Oral-Pigeon LDLo) = 100 mg/kg

LDLo (Oral-Chicken, adult) = 125 mg/kg

CHROMIUM:

Mutation in Microorganisms-*Salmonella typhimurium* 1 mmol/L

Cytogenetic Analysis-Human: leukocyte 2 mg/L

TDLo (Subcutaneous-Mouse) = 20 mg/kg (8D preg): Teratogenic effects

TDLo (Intravenous-Hamster) = 7500 mg/kg

(female 8D post): Reproductive effects

TCLo (Inhalation-Human) = 110 mg/m³/3 years, continuous: Carcinogenic effects

TDLo (Implant-Rat) = 125 mg/kg: Carcinogen

CHROMIUM (continued):

TCLo (Inhalation-Mouse) = 3480 mg/m³/2 hours/1 year - Intermittent: Equivocal tumorigenic agent

TCLo (Inhalation-Human) = 110 mg/n3

LD₅₀ (Oral-Rat) = 80 mg/kg

LD₅₀ (Oral-Mouse) = 127 mg/kg

LD₅₀ (Intraperitoneal-Mouse) = 14 mg/kg

LDLo (Subcutaneous-Mouse) = 20 mg/kg

COPPER OXIDE:

LDLo (Intratracheal-Rat) = 278 mg/kg

11. TOXICOLOGICAL INFORMATION (Continued)

SUSPECTED CANCER AGENT: This product's ingredients are found on the following lists:

ARSENIC:

EPA-A; Human Carcinogen
IARC-1; Carcinogenic to Humans
MAK-A1; Capable of Inducing Malignant Tumors
NIOSH-X; Carcinogen
NTP-1; Known to be a Carcinogen
OSHA-X; Carcinogen

CHROMIUM:

EPA-A; Human Carcinogen
IARC-1; Carcinogenic to Humans
MAK-A2; Unmistakably Carcinogenic in Human Experiments Only
NIOSH-X; Carcinogen
NTP-1; Known to be a Carcinogen

This product's other ingredients are not found on the following lists: U.S. FEDERAL OSHA Z LIST, NTP, IARC, CAL/OSHA, and therefore are not considered to be, or suspected to be, cancer-causing agents by these agencies.

IRRITANCY OF PRODUCT: This product is moderately to severely irritating and potentially corrosive to contaminated tissues.

SENSITIZATION TO THE PRODUCT: Chromium is a potential respiratory and skin sensitizer after prolonged or repeated exposure.

REPRODUCTIVE TOXICITY INFORMATION: Listed below is information concerning the effects of this product and its components on the human reproductive system.

Mutagenicity: Arsenic and Chromium, component of this products, must be regarded as potential human mutagens, based on animal experimentation.

Embryotoxicity: This product is not reported to produce embryotoxic effects in humans. Specific components of this product may produce embryotoxic effects. See "Teratogenicity" for additional information.

Teratogenicity: Arsenic Acid, a component of this product, must be regarded as a potential human teratogen, based on animal experimentation. Observed effects include decreased fetal weights; however, it is important to note that the specific effects of Arsenic on human teratogenicity have not been well studied. Chromium, another component of this product, has been found to be teratogenic and embryotoxic when given in intraperitoneal or intravenous doses to test animals.

Reproductive Toxicity: This product is not reported to produce adverse reproductive effects in humans

A *mutagen* is a chemical which causes permanent changes to genetic material (DNA) such that the changes will propagate through generational lines. An *embryotoxin* is a chemical which causes damage to a developing embryo (i.e. within the first eight weeks of pregnancy in humans), but the damage does not propagate across generational lines. A *teratogen* is a chemical which causes damage to a developing fetus, but the damage does not propagate across generational lines. A *reproductive toxin* is any substance which interferes in any way with the reproductive process.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Skin disorders may be aggravated by exposure to this product. Overexposures to aerosols, mists, or sprays of this product may aggravate respiratory conditions. Additionally, any disorder involving the "Target Organs" may be aggravated by overexposures to this substance.

RECOMMENDATIONS TO PHYSICIANS: Treat symptoms and eliminate overexposure. The following evaluations may be useful: examination of the nose, skin, eyes, nails, and nervous system; urine test for arsenic, kidney or lung function tests. An evaluation by a qualified allergist may also be necessary.

12. ECOLOGICAL INFORMATION

EFFECT OF CHEMICAL ON AQUATIC LIFE: This product is a toxic pesticide and can be fatal to exposed aquatic life. The following aquatic toxicity data are available for components of this product.

ARSENIC ACID:

LC₅₀ (striped bass) = 96 hours, 30.5 - 51.2 mg/L
LC₅₀ (*Daphnia magna*) = 48 hours, 2.4, 4.5 mg/l
LC₅₀ (*Ceriodaphnia reticulata*) = 48 hours, 1.3 mg/L
LC₅₀ (Fathead minnow) = 96 hours, 12.6 - 82.4 mg/L
LC₅₀ (Fathead minnow) = 336 hours, 10.556 mg/L
LC₅₀ (*Ceriodaphnia dubia*) = 48 hours, 1.3 mg/L
LC₅₀ (Brook trout) = 96 hours, 14.90 mg/L
LC₅₀ (Goldfish) = 96 hours, 26.04 mg/L |
LC₅₀ (Goldfish) = 336 hours, 18.618 mg/L |
LC₅₀ (Channel catfish) = 96 hours, 15.0 - 19 mg/L
LC₅₀ (Flagfish) = 96 hours, 14 - 29 mg/L
LC₅₀ (Bluegill) = 96 hours, 15 - 42 mg/L
LC₅₀ (Bluegill) = 336 mg/L, 18.328 mg/L
LC₅₀ (Rainbow trout) = 144 hours, 13.3 mg/L
LC₅₀ (Brook trout) = 262 hours, 10.44 mg/L
LC₅₀ (Spottail shiner) = 72 hours, 27 mg/L
LC₅₀ (Largemouth bass) = 192 hours, 42.1 mg/L
EC₂₀ (Snail, *Aplexa hypnorum*) = 96 hours, 24.5 mg/L
EC₅₀ (*Ceriodaphnia reticulata*) = 48 hours, 1.8 mg/L

EC₅₀ (*Daphnia magna*) = 48 mg/L, 1 - 6 mg/L
EC₅₀ (*Daphnia pulex*) = 48 mg/L, 1 - 2 mg/L
EC₅₀ (*Simocephalus serrulatus*) = 48 hours, 0.812 mg/L
EC₅₀ (*Gammarus pseudolimnaeus*) = 96 hours, 0.874 mg/L
EC₅₀ (Stonefly) = 96 hours = 22.04 mg/L
EC₅₀ (Midge) = 96 hours, 97 mg/L
EC₅₀ (*Daphnia magna*) 48 hours, 1 - 5 mg/L

CHROMIUM:

EC₅₀ (*Salmo gairdneri* (rainbow trout, embryo larva)) = 190 µg/L, as chromium, 28 days (death and deformity).

EC₅₀ (*Carassius auratus* (goldfish embryo larva)) = 660 µg/L, as chromium, 7 days (death and deformity).

LC₅₀ (*Ophryotrocha diadema* (polychelate worm)) = 7500 µg/L, as chromium, static unmeasured method.

LC₅₀ (*Ctenidius serratus* (polychelate worm)) = 4300 µg/L, as chromium, static unmeasured method.

LC₅₀ (*Capitella capitata* (polychelate worm, larval)) = 8000 µg/L, as chromium, static unmeasured method.

LC₅₀ (*Capitella capitata* (polychelate worm, adult)) = 5000 µg/L, as chromium, static unmeasured method.

Mean Acute Values for Saltwater Species:

Nassarius obsoletus (mud snail) = 105,000 µg/L.

Fundulus heteroclitus (mummichog) = 74,010 µg/L.

Menidia menidia (Atlantic silverside) = 15,280 µg/L.

Crassostrea gigas (Pacific oyster) = 4538 µg/L.

Mytilus edulis (blue mussel) = 4469 µg/L.

Mysidopsis bahia (mysid shrimp) = 2030 µg/L.

Nereis virens (polychelate worm) = 2000 µg/L.

Toxic Threshold: *Daphnia magna* = 0.018-0.7 ppm [Cr(IV)].

13. DISPOSAL CONSIDERATIONS

PREPARING WASTES FOR DISPOSAL: Waste disposal must be in accordance with appropriate U.S. Federal, State, and local regulations, or those of Canada and its Provinces. This product, if unaltered by use, may be disposed of by treatment at a permitted facility or as advised by your local hazardous waste regulatory authority.

U.S. EPA WASTE NUMBER: The following waste numbers may be applicable: D002 (Characteristic, Corrosive), D004 (Arsenic, 5.0 mg/L), D007 (Chromium, 5.0 mg/L).

CONTAINER DISPOSAL: Triple rinse (or equivalent), then offer the container for recycling or reconditioning. Alternatively, puncture the container and dispose of in a procedure approved by State, Province and local authorities.

14. TRANSPORTATION INFORMATION

THIS MATERIAL IS HAZARDOUS AS DEFINED BY 49 CFR 172.101 BY THE U.S. DEPARTMENT OF TRANSPORTATION. For shipments containing 1 lb. of Arsenic or more:

PROPER SHIPPING NAME: R.Q. Arsenic compounds, liquid, n.o.s.

HAZARD CLASS NUMBER and DESCRIPTION: 6.1 (Toxic)

UN IDENTIFICATION NUMBER: UN 1558

PACKING GROUP: PG III

DOT LABEL(S) REQUIRED: Poison

NORTH AMERICAN EMERGENCY RESPONSE GUIDEBOOK NUMBER (1996): 152

MARINE POLLUTANT: No component of this product is listed as a marine pollutant by the D.O.T. (49 CFR 172.101, Appendix B).

TRANSPORT CANADA TRANSPORTATION OF DANGEROUS GOODS REGULATIONS: THIS MATERIAL IS CONSIDERED AS DANGEROUS GOODS. Use the above information for the preparation of Canadian shipments.

CC: Jesse
Dan ✓

July 2, 1999

VIA FACSIMILE

Ms. Jill Burton
Acting Chief
Hazardous Waste Section
Division of Waste Management
Department of Environment and Natural Resources
P.O. Box 29603
Raleigh, NC 27611-9603

Re.: May 25, 1999 30-Day Extension

Dear Ms. Burton:

Thank you once again for granting a 30-day extension for our waste stream on May 25, 1999. Per that letter, you requested a copy of the manifest with transporter signature indicating the material had been shipped off-site by June 28, 1999.

Attached please find a copy of that manifest. Please note that two drums were disposed. A second drum had been accumulated during the extension period. The material has been stabilized at the ultimate disposal facility and is being tested. Once these drums of material prove to be stabilized sufficiently to meet applicable regulations, the facility will grant CSI approval for continued disposal.

If you have any questions please feel free to contact me at (704) 455-4138.

Sincerely,

A handwritten signature in black ink, appearing to read "S. Bartos".

Sylvester J. Bartos
Compliance Manager
Chemical Specialties, Inc.

Emergency Contact Telephone Number

(704) 455-5181

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. NC D 0 4 2 4 6 7 4 2 7	Manifest Document No. 00618	2. Page 1 of 1	Information in the shaded areas is not required by Federal law.
3. Generator's Name and Mailing Address CSI 5910 Pharr Mill Road Harrisburg, NC 28075		4. Generator's Phone (704) 455-5181		A. State: NC	
5. Transporter 1 Company Name STAT, Inc.		6. US EPA ID Number NC D 0 0 0 7 2 2 1 4 2		C. State: NC	
7. Transporter 2 Company Name		8. US EPA ID Number		E. State: NC	
9. Designated Facility Name and Site Address ECOFLO, Inc. 2750 Patterson St. Greensboro, NC 27407		10. US EPA ID Number NC D 0 0 0 4 2 1 3 2		G. State: NC	
11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)		12. Containers No.	Type	13. Total Quantity	14. Unit
a. 6, UNITS OF ARSENIC TRIOXIDE AS ARSENIC TRIOXIDE		2	DRUM	606	LB
b. ARSENIC TRIOXIDE					
c. ARSENIC TRIOXIDE					
d. ARSENIC TRIOXIDE					
15. Special Handling Instructions and Additional Information Job # 00007 G) PWD1532-3/302					
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international, national, and state regulations.					
Printed/Typed Name Misty Boyd		Signature <i>[Signature]</i>		Month Day Year 06 27 99	
17. Transporter 1 Acknowledgement of Receipt of Materials		Signature <i>[Signature]</i>		Month Day Year 06 29 99	
18. Transporter 2 Acknowledgement of Receipt of Materials		Signature		Month Day Year	
19. Discrepancy Indication Space					
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.					
Printed/Typed Name		Signature		Month Day Year	

GENERATOR'S COPY

DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
DIVISION OF WASTE MANAGEMENT
HAZARDOUS WASTE SECTION

ACTIVITY REPORT

SUBJECT: Chemical Specialties, Inc.

LOCATION: Cabarrus Co.

DATE: July 20, 1999

ADDRESS: 5910 Pharr Mill Road

TIME SPENT: 2 hrs.

CITY: Harrisburg

STATE: N.C.

ZIP: 28075

BY WHOM: Dan Graham - Waste Management Specialist
Jesse Wells - Western Area Supervisor

PERSONS CONTACTED: Sylvester Bartos - Compliance Manager

REASON FOR VISIT: Obtain requested information from EPA Region I

COPIES TO: Jesse Wells - Western Area Supervisor

REPORT: On July 20, 1999, Dan Graham, Waste Management Specialist and Jesse Wells, Western Area Supervisor, representing the N.C. Hazardous Waste Section, visited the above subject site in order to determine if the recycled material that is received from BB&S is considered a product and not a solid waste under 40 CFR 261.4(a)(9). Mr. Graham and Mr. Wells met with Mr. Sylvester Bartos and discussed the process involving the BB&S material. Mr. Bartos explained that the material is placed directly into the hot arsenic bath and is not treated in any fashion prior to being placed into the acid bath (see enclosed CSI letter, dated July 13, 1999). Mr. Graham, Mr. Wells, and Mr. Bartos went to the warehouse where the drums of the recycled material is stored. Mr. Wells asked for a copy of the MSDS on the material. Mr. Bartos didn't have one readily available. However, Mr. Bartos stated he would fax a copy of the MSDS sheet to MR. Graham at the MRO. A memorandum and copy of the CSI letter, dated July 13, 1999, will be drafted and sent to Ms. Chris Lippart of the EPA, Region IV.

ACTIVITY TYPE: OTHER/SAMPLING

NORTH CAROLINA DEPARTMENT OF
ENVIRONMENT AND NATURAL RESOURCES
ASHEVILLE REGIONAL OFFICE

Division of Waste Management
April 19, 1999



JAMES B. HUNT JR.
GOVERNOR

WAYNE McDEVITT
SECRETARY

Mr. Syl Bartos
CSI
PO Box 640
Harrisburg, North Carolina 28075

RE: Extension of Accumulation Time

Dear Mr. Bartos:

On April 16, 1999 this Agency received your request for an extension of the 90 day limit for storage of hazardous waste by a generator without a permit. The reason for the request is that the treatment facilities that previously accepted and treated the arsenic trioxide waste were no longer accepting the waste stream (Waste Stream Identification Number 2BNP-117).

In order for CSI to make arrangements for the disposal of the arsenic trioxide waste stream a 30-day extension is hereby granted for storage of the waste. This is the maximum time allowed under 40 CFR 262.34(b).

If you should have any questions or need additional information do not hesitate to contact me at (828) 251-6208 ext. 204

Sincerely,

Jesse W. Wells
Western Area Supervisor
Hazardous Waste Section

cc: Doug Holyfield
Brent Burch w/attachments



April 16, 1999

Mr. Jim Edwards
Department of Environment and Natural Resources
Division of Waste Management Hazardous Waste Division
401 Oberlin Rd. Suite 150
Raleigh, N.C. 27607

Re: Hazardous Waste Storage Extension
NCD048467427

Dear Mr. Edwards:

Chemical Specialties, Inc. is a large quantity generator of hazardous waste. We have a ninety day storage limit for hazardous waste on our site. The company that collects and treats our waste was in Thursday April 15th, 1999 to pick up our waste and in particular one drum that was nearing it's storage deadline. We were then informed that the treatment facilities that previously accepted and treated the waste from them were no longer accepting this particular waste stream. As a result we will be out of compliance in regard to the 90 day storage deadline this weekend.

I'm writing to request an extension of our deadline so we may make arrangements for treatment of this waste. I'm also faxing a copy of a letter our hazardous waste treatment facility sent us in regard to this waste stream.

Please fax the confirmation to Mr. Syl Bartos, Compliance Mgr. at: 704 455-6507.
Please call me if you have any questions: 704 455-4161.

Thanks for you assistance in this matter.

Sincerely,

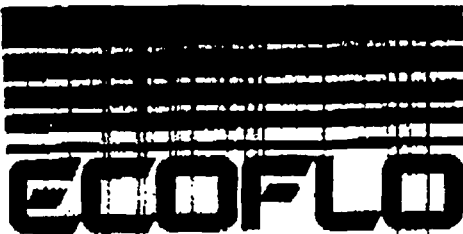
Tim Renckens
Environmental Assistant

PO Box 640 • 5910 Pharr Mill Road • Harrisburg, NC 28075 • 704-455-5181 • FAX 704-455-8507 • LAB FAX 704-455-1123

202

04/17/99 03:53 FAX

END



8520-K Corridor Road
Savage, Maryland 20763
(301) 498-4550

2760 Patterson Street
Greensboro, NC 27407
(336) 855-7925

April 16, 1999

Syl Bartos
Mineral Research and Development
Post Office Box 1330
Harrisburg, North Carolina 28075
Fax: (704) 455-5987

Dear Mr. Bartos:

ECOFLO has contacted several treatment facilities regarding the acceptability of your Arsenic Trioxide stream ZBNP-117. Waste Management, Stablex, and EQ have all rejected the waste stream. At this time there are no viable disposal options available. ECOFLO will continue to look into other options as the availability arises.

If you have any questions, please contact Resa Treadway or myself at (800) 999-6510. Thank-you for your attention to this matter.

Sincerely,

A handwritten signature in black ink, appearing to read "Paula Weston". The signature is fluid and cursive, written over a white background.

Paula Weston
Technical Service Representative

ENVIRONMENTAL WASTE SERVICES

ECOFLO, HazSTAR and HazStaff are registered servicemarks of ECOFLO, Inc.



To Jesse Wells

FAX TRANSMISSION

From *Mr. Jim Edwards*

From: *Jim Runko*

Company: *NC DENR*

Date: *4/16/99* Page *1* of *3*

Fax No: *919 715 3605*

Re: *Hazardous Waste Storage extension*

*Hi,
Please call me if you have any questions 704 455 4161.*

*Thanks
Tomi*

CSI • P.O. BOX 640 • 5910 PHARR MILL ROAD • HARRISBURG, NORTH CAROLINA 28075
PHONE 704-455-5181 • FAX 704-455-8507 • FAX (LAB) 704-455-1123
PURCHASING & TRANSPORTATION 704-455-5987

XVA CG: 00 06/17/90

CSI 12/16/98

Manifest: Trans: STAT - NCD 980799/42

FD: Coflo, Inc. - NCD 980842/32

Waste: 2004 - arsenic trioxide

Trans: SouthCo - NCH 000002501

Waste: 2012/2009 - arsenic trioxide

2004/2007/2009 - arsenic pentoxide, chromic acid, chromium trioxide

2004/2009 - arsenic, mercury

2001/2044 - ethyl alcohol, formaldehyde

GW sampling: 4/7/98, 7/8/98, 10/15/98

Satellite Accumulation Areas

The building locations can be found on drawings at the Site; the letter references can be located on the drawing in Appendix 1A of this Contingency Plan.

- a. Under Loading Mezzanine in Driveway # 3 *OK* Drive # 3
- b. Arsenic Acid Rotary Vacuum Filter Room *OK* Bldg. 23
- c. Not In service
- d. Two in the CCA Production Area Near R-91 & R-92
 - 1) Lower Level *OK*
 - 2) Mezzanine Level *OK*
- e. 6 QC Laboratories *Q-OK Q-OK Q-OK Q-OK* Bldg. 5
- f. R & D Laboratory *OK* Bldg. 5 Basement
- g. R & D Treatment Cylinder Area *OK* Bldg. 5 Basement
- h. Outside Bldg. 5 Extension Bldg. 5 Basement
 - 1) CCA Off-Spec Material *OK*
 - 2) Low Flash Organic Solvent *OK*
- i. Maintenance Shop Bldg. 4
 - 1) CCA Contaminated Rubbish/Debris in Shop Area *OK*
 - 2) Waste Paint and Thinner *OK*
- j. Old 198 Control Room (Blue Room) *OK* Bldg. 31
- k. New 198 Control Room *OK* Bldg. 34
- l. 198 QC Lab *OK* Bldg. 34
- m. 198 Breakroom *OK* Outside Bldg. 22
- n. Bulk Bag Facility *OK* Bldg. 36
- o. Dirty Side of Showers *OK* Bldg. 216
- p. Warehouse # 4 *OK* Bldg. 230
- q. Arsenic Trioxide Manual Drum Unloading Area *OK* Bldg. 126

RCRA INSPECTION REPORT

(x= violation, na= not applicable)

General Information:

Facility Name _____
Location _____
Mailing Address _____
EPA I.D.# _____ Phone # _____
Contact/ Title _____
Inspection Date _____ Last Inspection _____
Status _____ Type of Inspection _____
Waste Management Specialist(s) _____
Present at Inspection _____
Type of Business _____
Waste Generated _____

Manifests:

Approved Transporters? yes Approved TSD's? yes
Signed Copies? yes Filled Out Correctly? yes
LDR Notification Attached? yes

Waste Minimization? yes How? arsenic acid being reclaimed

Hazardous Waste Inspection Records:

Inspections On Storage Area OK
Inspections On H.W. Tanks _____
Inspection On Ancillary Equipment _____

Contingency Plan:

On Site? yes
Any changes to facility/ processes or Emergency Coordinators since last review? no
Contingency Plan used? no (if yes, was it adequate?) _____
Agreements with Emergency Responders? _____

Training Records:

Certified Training Documents Available? yes
Any New Employees Since Last Review? yes
Evidence Of Improper/ Inadequate Training? no

Facility Name _____ EPA I.D.# _____
Inspection Date _____

Employee Interview:

Names(s) _____ Trained _____

Annual Report Submitted? _____ Copy At Facility? _____

Emergency Preparedness:

Facility Maintained And Operated To Prevent Releases? _____
Internal Communications Or Alarm Present? _____
Device In Area Of Operation To Summon Outside Help? _____
Portable Fire Extinguishers And/ Or Fire Control Equipment? _____
Spill Control Equipment? _____
Adequate Water Volume, Foam, Equipment, Or Auto Sprinkler? _____
All Equipment/ Alarms Tested And Maintained? _____
All Personnel Handling H.W. Have Access To Alarm/ Device? _____
Aisle Space In Area Of Facility Operations? _____

Satellite Accumulation Area(s) _____ Location(s) _____

Containers: Closed? _____ Labeled? _____ <55 gal. _____ Stored <3 days if full? _____

Storage Area(s): 2 Description 15 boxes
2-55 gallon
30-gal roll off - arsenic filter cake waste

Containers: Closed? _____ Aisle space? _____ Labeled? _____ Releases? _____
Dated? _____ <90 days? _____ Good condition? _____

Other H.W. Units: (Applicable Regulations)

Description of Unit _____

External Facility Condition _____

Facility Name _____ EPA I.D.# _____

Inspection Date _____

Site Deficiencies:

- 1.) 40 CFR _____

- 2.) 40 CFR _____

- 3.) 40 CFR _____

- 4.) 40 CFR _____

- 5.) 40 CFR _____

- 6.) 40 CFR _____

Recommendations/ Violations Continued: _____

RCRA Inspector (date)

Facility Contact (date)

Follow Up Inspection:

Comments _____

RCRA Inspector (date)

Facility Contact (date)

Region 4 Compliance Data Entry Form - Side A

(Rev.8/97)

FACILITY INFORMATION: EPA ID Number: <u>NC0048467427</u>	Submittal Information	Initial By- Date -	Corrected By- Date -
	RCRA Comp. Section:	___ / ___ / ___	___ / ___ / ___
	Received: Entered/Returned:	___ / ___ / ___	___ / ___ / ___

Facility Name: Chemical Specialties, Inc. City: Harrisburg, N.C.

EVALUATION DATA: New: Change: Delete: (: Required)

Agency: S Date: 05 / 20 / 98 Type: C/E/E Control Number Data Entry Personnel:

Person: 030 Reason:

Evaluation Comments:
(74) 1 : In Compliance
2 : _____

SNC DETERMINATION: If this evaluation resulted in a SNC determination, fill in this block. (NOTE: SNC determinations are SNY/SNN evaluations. The SNY/SNN evaluation can also be submitted later on a separate form.)

Facility is (Check one) Date of determination:
 - a SNC (SNY evaluation) Same as above eval.: - or -
 - no longer a SNC (SNN eval.) / /

VIOLATION DATA: New: Change: Delete:

Agency: Type: Date (mdy) Determined: / / Class:
 Priority: Branch: Person: Seq. Number (Data Entry):
 Return to Compliance: / / --- Scheduled --- Actual ---
 Reg. Type: Reg. Description (30): _____
 Comment (72): _____

Agency: Type: Date (mdy) Determined: / / Class:
 Priority: Branch: Person: Seq. Number (Data Entry):
 Return to Compliance: / / --- Scheduled --- Actual ---
 Reg. Type: Reg. Description (30): _____
 Comment (72): _____

Agency: Type: Date (mdy) Determined: / / Class:
 Priority: Branch: Person: Seq. Number (Data Entry):
 Return to Compliance: / / --- Scheduled --- Actual ---
 Reg. Type: Reg. Description (30): _____
 Comment (72): _____

*** EPA Region 4 Compliance Data Entry Form -Side B *** (8/97)

Fill out facility information on Side A, then come back to this side.

ENFORCEMENT DATA: New: Change: Delete: (==: Required)

Agency: Type: Date: / / Month Day Year Seq.# (Data Entry)

Person: Branch: Poll. Prev. Measures:

Penalty Data
 Proposed: \$ / / 1) Payments: \$ / / Date Paid: / /
 Settled/Final: \$ / / 2) \$ / /

Enforcement Comments: 1: _____
 (74)
 2: _____

Cite violations addressed by this action below -

VIOLATION DATA: New: Change: Delete:

Agency: Type: Date (mdy) Determined: / / Class: Seq. Number (Data Entry)
 Priority: Branch: Person:
 Return to Compliance: / / -- Scheduled -- --- Actual ---
 Reg. Type: Reg. Description (30): _____
 Comment (72): _____

Agency: Type: Date (mdy) Determined: / / Class: Seq. Number (Data Entry)
 Priority: Branch: Person:
 Return to Compliance: / / -- Scheduled -- --- Actual ---
 Reg. Type: Reg. Description (30): _____
 Comment (72): _____

Agency: Type: Date (mdy) Determined: / / Class: Seq. Number (Data Entry)
 Priority: Branch: Person:
 Return to Compliance: / / -- Scheduled -- --- Actual ---
 Reg. Type: Reg. Description (30): _____
 Comment (72): _____

Agency: Type: Date (mdy) Determined: / / Class: Seq. Number (Data Entry)
 Priority: Branch: Person:
 Return to Compliance: / / -- Scheduled -- --- Actual ---
 Reg. Type: Reg. Description (30): _____
 Comment (72): _____

More violations for this enforcement action on other side ? Yes No

RCRA INSPECTION REPORT

1. **Facility Information:** Chemical Specialties Inc. (CSI)
5910 Pharr Mill Road, P.O. Box 610
Harrisburg, N.C. 28075
NCD048467427

2. **Facility Contact:** Mr. Syl Bartos
704/377-6555

3. **Survey Participants:** Syl Bartos, Heath Howie, Tim Renckens, Brent Burch

4. **Date of Inspection:** May 20-21, 1998

5. **Purpose of Inspection:** To determine compliance with 40 CFR 262, 264, 268, and 279.

6. **Facility Description:** CSI is a manufacturer of inorganic chemicals predominately used in the wood preserving industry. The facility closed four surface impoundments. Waste removed from the impoundments was removed and stabilized with portland cement and fly ash. The stabilized waste was then land disposed in an on-site landfill designated #3. The landfill covers 1.074 acres and 345,856 cubic feet of stabilized hazardous waste was disposed of in the fill area. The facility presently maintains one impoundment holding treated wastewater which is discharged to the Rocky River under an NPDES permit. The plant wastewater is treated with lime to raise the pH and to stabilize metals. Wastewater discharged to the river must be at a pH of ≤ 9.0 . The facility maintains another impoundment for spill release purposes.

7. **Type Waste:**
 - D004 - hazardous waste solid (arsenic).

 - D004/D007/D009 - hazardous waste solid (chromium trioxide, arsenic petroxide).

 - P012/D009 - hazardous waste solid (arsenic trioxide).

 - D004/D007/D009 - hazardous waste liquid.

8. **Areas of Inspection**
(Yes = compliance, no=violation, na=not applicable)
 - Emergency Preparedness: Yes
 - Inspection Records: Yes
 - Contingency Plan: Yes
 - Training Records: Yes
 - Manifests/LDR: Yes

Page Two
Chemical Specialties Inc.
NCD048467427
May 20-21, 1998

- **90/180 Day Storage Areas:** The facility maintains two areas for <90 day storage of hazardous waste. The main storage area is located in the warehouse. At the time of the inspection, 4 boxes containing P012/D004 arsenic trioxide contaminated debris were located in the storage area. Also, 2 - 55 gallon containers of P012 waste were located in the storage area. The boxes, and containers were labeled, dated, and closed.

- **Satellite Accumulation Areas:** The facility maintains eighteen satellite accumulation areas. All containers used for satellite accumulation of hazardous waste were found to be labeled and closed. One 30 yard roll-off container used for the accumulation of the 198 AA recovery sludge (arsenic) must be treated as a <90 day storage area due to its location. This container was dated, labeled, and closed.

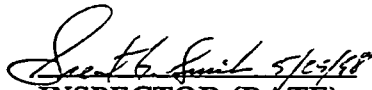
-**External Facility Condition:** Good condition

-**Other HW Units:** The facility has a closed hazardous waste landfill. The landfill is subject to Part B permitting requirements as a disposal facility and is subject to corrective action. The facility maintains six groundwater monitoring wells to monitor the closed units. No erosion was noted on the landfill cap.

9. **Waste Minimization:** The facility maintains a written plan.

10. **Site Deficiencies:**

In Compliance.


INSPECTOR (DATE)

sent certified mail
FACILITY CONTACT

Division of Waste Management
Hazardous Waste Section

June 1, 1998

Memorandum

To: File

From: Brent Burch *BB*

Subject: Financial Liability Requirement
Chemical Specialties, Inc.
NCD048467427
Cabarrus County, N.C.

Per Ms. Jenny Lopp, the subject facility is using a letter of credit to meet financial obligation. The amount is \$341,994.98 for post closure. The expiration date is 11/19/98.

GROUND WATER INSPECTION FORM - PART 265

Name of Site: Chemical Specialties, Inc. (CSI)

EPA I.D.: NCD048467427

County: Calhoun

Inspection Date: May 20, 1988

Signature of Inspector(s): [Signature]

Signature of Facility Contact: _____

In each blank place a "C" for in compliance, or an "X" for not in compliance, or a "N/A" if not required. All blanks should be completed.

SUBPART F - GROUND WATER MONITORING

1. Install, operate, and maintain ground water monitoring system in compliance with 265.90(b) reference 265.91 or 265.90(d)

minimum of ⁶4 wells installed; one of the wells must be installed upgradient and the other wells must be located downgradient of the waste management area; the downgradient wells must be as close as technically feasible to the limits of the waste management area.

2. Ground Water Sampling and Analysis Plan

developed and maintained in accordance with 265.92(a)

3. Ground Water Assessment Plan [(265.93(d)(2))]

developed and submitted to the State Program Administrator, if required.

4. Quarterly/Semi Annual Ground Water Sampling [265.93(d)(7)]

quarterly and/or semi-annual ground water samples collected and analyzed as specified.

5. Record Keeping and Reporting [265.94(b)]

maintain records of ground water sample analyses at the facility.

N/A submit annual report containing the results of the Groundwater Assessment Program by March 1, 19__.

Division of Waste Management
Hazardous Waste Section

Chemical Specialties, Inc
NCD 048467427
Cabarrus County, N.C.

Date: 5-21-98

**TSDF INSPECTION FORM - PART 264
SUPPLEMENTAL CHECKLIST FOR FACILITY - SPECIFIC CONDITIONS**

1. Post -closure documents to be maintained at facility site (Permit Conditions I.F.).

- C Corrective action system operation and maintenance plans.
- C Cost estimate for corrective action system.
- C Post-closure plan(s).
- C Cost estimate for post-closure care.
- C Inspection schedules developed in accordance with 264.15(b).
- C Operating record required by 264.73 and Permit Condition III. E.
- C Corrective Action Plans and reports required by 264.101.
- C Groundwater monitor records used to develop reports required by the permit.
- C A survey plat and record of the type, location and quantity of hazardous waste or hazardous constituents disposed of within each cell or area of the facility (to include solid waste management units) as required by 264.119.
- C All reports and documentation of compliance with 264.118(a), (b)(1) and (2) during the post-closure period.

State of North Carolina
Department of Environment, Health, and Natural Resources
Division of Solid Waste Management
Hazardous Waste Section

SITE SAFETY PLAN (SSP) UPDATE FORM
(Regulated Facility)

(A) Facility Name: Chemical Specialties, Inc. EPA ID# NC2048467424
Address: 5910 Chase Mill Road, Harrisburg, NC 28705 Phone# 704/377-6555
Contact: Mr. Syl Barto Phone# _____
Facility Safety Designee: Mr. Syl Barto
HWStaff: Brent Smith, DSO Date: May 20-21, 1988

(B) REVIEW AND CHANGES

SSP Reviewed: SSP Changed: (1) SSP Unchanged:

Comments: _____

(1) NOTE: Any changes made in the facility process descriptions or health and safety considerations section of the SSP must be shown on a new SSP.

(C) EMERGENCY INFORMATION

Ambulance: Harrisburg Fire Telephone# 911
Hospital: Cabarrus Memorial Hospital Telephone# 911
Police: Cabarrus County Emergency Services Telephone# 911
Fire Dept.: Cabarrus County Emergency Services Telephone# 911
Fire & Emergency Signals Reviewed: yes
Site Evacuation Plan Reviewed: yes

SAFETY OFFICER: _____ DATE: _____

NORTH CAROLINA DEPARTMENT OF
ENVIRONMENT AND NATURAL RESOURCES

DIVISION OF WASTE MANAGEMENT

October 23, 1998



JAMES B. HUNT JR.
GOVERNOR

WAYNE MCDEVITT
SECRETARY

WILLIAM L. MEYER
DIRECTOR

Mr. Sylvester J. Bartos
Compliance Manager
Chemical Specialties, Inc.
P.O. Box 610
Harrisburg, NC 28075

Re: RCRA Permit Modification Request
Chemical Specialties, Inc.
Facility ID # NCD 048 467 427



Dear Mr. Bartos:

Your request of September 8, 1998 for a permit modification to update the contingency plan has been processed as a class one (1) permit modification under 40 CFR 270.42 as referenced in 15A NCAC 13A .0113. To comply with 40 CFR 270.42 you must notify all persons on the enclosed mailing list with the exception of the State and EPA who have already been notified.

This permit modification does not cause a change in the actual permit document. The attached application pages should replace the corresponding pages in the application.

Approval of this modification is therefore granted and has been incorporated into your permit. If you have any questions, please contact Beth Hartzell at (919) 733-2178 ext. 226.

Sincerely,

Jill E. Burton, Acting Chief
Hazardous Waste Section

Enclosure

cc: Narindar Kumar, US EPA, Region IV
A. Preston Howard, Jr., DWQ
Frank W. Clifton, Jr., Cabarrus County Manager
Jesse Wells

rc: Jill E. Burton
Elizabeth A. Hartzell
Katherine L. O'Neal
Kathleen Z. Lawson
Peter L. Doorn

c:\wpfiles\ruth\eah\csi1020.98

401 OBERLIN ROAD, SUITE 150, RALEIGH, NC 27605
PHONE 919-733-4996 FAX 919-715-3605

AN EQUAL OPPORTUNITY / AFFIRMATIVE ACTION EMPLOYER - 50% RECYCLED/10% POST-CONSUMER PAPER

MAILING LIST

CHEMICAL SPECIALTIES, INC.
NCD 048 467 429
July 15, 1997

Mr. Narindar Kumar, Chief
RCRA Branch
Waste Management Division
US EPA, Region IV
61 Forsyth St. SW
Atlanta, Georgia 30303

Mr. A. Preston Howard, Jr., P.E., Director
Division of Environmental Management
Post Office Box 29535
Raleigh, North Carolina 27626-0535

Mr. James A. Carter, Chief
Hazardous Waste Section
Department of Environment, Health, and Natural Resources
Post Office Box 29603
Raleigh, North Carolina 27611-9603

Mr. Frank W. Clifton, Jr.
Cabarrus County Manager
Government Center
65 Church Street, SE
Concord, North Carolina 28025

Mr. William F. Pilkington
Director, Cabarrus County Health Services
715 Cabarrus Avenue, West
Concord, North Carolina 28025

Mr. Jesse Wells, Waste Management Specialist
Mooresville Regional Office
Hazardous Waste Section, DEHNR
919 North Main Street
Mooresville, North Carolina 28115

Contingency Plan Updates / Revisions

Revision Date	8/98
Section	Revisions
2.4	Added Rob Miller, Kim Anderson and Trevor Feaster to Chief Operators/Shift Supervisor list.
2.4	Added Bobby Baggett and Marty Poplin to HAZWOPER Team.
2.5	Modified Contact Numbers page.
5.2.3	Removed Instructions for use of Pager System. Several different systems are used and the systems used provide step by step instructions of submitting a page.
Appendix 1B	Satellite Accumulation locations changed. Elimination of Copper Nitrate. Addition of Low Flash Organic Solvent to Outside Bldg. 5 Extension and elimination of Spent Paint Thinner in truck Bay. The elimination of several pages resulted in the re-numbering of subsequent pages. Thus, the entire contingency plan text is being redistributed.

Satellite Accumulation Areas

The building locations can be found on drawings at the Site; the letter references can be located on the drawing in Appendix 1A of this Contingency Plan.

- | | |
|---|------------------|
| a. Under Loading Mezzanine in Driveway # 3 | Drive # 3 |
| b. Arsenic Acid Rotary Vacuum Filter Room | Bldg. 23 |
| c. Not In service | |
| d. Two in the CCA Production Area | Near R-91 & R-92 |
| 1) Lower Level | |
| 2) Mezzanine Level | |
| e. 6 QC Laboratories | Bldg. 5 |
| f. R & D Laboratory | Bldg. 5 Basement |
| g. R & D Treatment Cylinder Area | Bldg. 5 Basement |
| h. Outside Bldg. 5 Extension | Bldg. 5 Basement |
| 1) CCA Off-Spec Material | |
| 2) Low Flash Organic Solvent | |
| i. Maintenance Shop | Bldg. 4 |
| 1) CCA Contaminated Rubbish/Debris in Shop Area | |
| 2) Waste Paint and Thinner | |
| j. Old 198 Control Room (Blue Room) | Bldg. 31 |
| k. New 198 Control Room | Bldg. 34 |
| l. 198 QC Lab | Bldg. 34 |
| m. 198 Breakroom | Outside Bldg. 22 |
| n. Bulk Bag Facility | Bldg. 36 |
| o. Dirty Side of Showers | Bldg. 216 |
| p. Warehouse # 4 | Bldg. 230 |
| q. Arsenic Trioxide Manual Drum Unloading Area | Bldg. 126 |

EMERGENCY RESPONSE PLAN,
HAZARDOUS WASTE CONTINGENCY PLAN
and
OIL SPILL PREVENTION CONTROL AND COUNTER MEASURE PLAN

CHEMICAL SPECIALTIES, INC.
P.O. BOX 1330
HARRISBURG, NORTH CAROLINA 28075

Prepared to comply with SPCC Plan and Hazardous Waste
Contingency Plan according to 40 CFR, Parts 112, 264 and
265.

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1.0 FACILITY INFORMATION

Facility Name and Location

Chemical Specialties, Incorporated

Physical Address:

5910 Pharr Mill Road
Harrisburg, North Carolina 28075

Mailing Address:

Post Office Box 1330
Harrisburg, North Carolina 28075

Normal Working Hours:

24 hours per day
7 days per week

Owner:

Laporte, Incorporated, U.S.
One Woodlawn Green
Charlotte, North Carolina 28217

David W. Moon, Vice President of Operations

Initial Date of Operation: 1964

2.0 PLANT EMERGENCY ORGANIZATION

The following individuals comprise the Harrisburg Site Emergency Response Team. Each heading represents the function of key individuals. Alternates for the functions, in lieu of the absence of the primary member (designated as No. 1), are indicated in descending order under each heading.

The Emergency Response Coordinator has the authority to commit all necessary company resources to the implementation of this Contingency Plan.

2.1 *Emergency Response Coordinators*

1. Syl Bartos
2. Heath Howie

2.2 *Public Relations Officer*

1. David Moon
2. Syl Bartos

2.3 *Specialists*

Wood & Industrial

1. Steve Novak
2. Bobby Baggett

Site Utilities

1. Doug Barnette
2. John Troutman

Site Safety (all areas)

1. Heath Howie
2. Syl Bartos

Transportation

1. Syl Bartos
2. Nicki Fabry

Laboratory/R&D

1. Lehong Jin
2. Andy Zahora

2.4 Site Early Response Teams

Fires

Site- Doug Barnette/John Troutman w/ Maint. dept.

Minor Spills/Releases with Area employees

198 - Chief Operators/Rob Miller
CCA Area - Larry Love
Industrial Area -John Cade
Warehouses - Marty Poplin/Joe Creech
Maint./Utilities - Doug Barnette

Offshift Response

198 Chief Operators / Shift Supervisors
John Grier
Wilson Patterson
Brian Sewell
Rob Miller
Kim Anderson
Trevor Feaster

Major Spills Response - HAZWOPER Team

Syl Bartos
Bobby Baggett
Heath Howie
John Troutman
Emanuel Caldwell
John Williams
Ken Mason
David Adcock
Kirk Adams
Marty Poplin

2.5 Key Personnel Contact Numbers

MAIN SITE PHONE NUMBER IS 1-704-455-5181

EMERGENCY AND OFF-HOURS PHONE NUMBER IS:

1-704-455-9315 (This number includes a Plant radio interconnection)

NAME	EXT.	DIRECT DIAL	HOME PHONE #	CELL PHONE #	PAGER #	PAGER PIN
198 Control Room	279					
198 Breakroom	253					
198 Laboratory	289					
Bobby Baggett	283	455-4177	455-5603	201-5044	201-7243	704-201-5044
Doug Barnette	278	455-4178	855-1627	201-5043	201-7243	704-201-5043
Syl Bartos	238	455-4138	846-3973	201-5040	201-7243	704-201-5040
John Cade	244	455-4144	784-9130		514-7531	
Nicki Fabry	235	455-4135	1-704-784-4024	201-5045	201-7243	704-201-5045
Steve Furr	242	455-4142	455-1738	201-5059	201-7243	704-201-5059
Heath Howie	271	455-4171	545-5073	201-5047	201-7243	704-201-5047
Lehong Jin	257	455-4157	597-8576	502-5845		
Laboratory	268	455-4168			559-3648	
Larry Love	236	455-4136	788-2977		521-0372	999-5864
Maintenance	255	455-4155			514-7530	
Rob Miller	297	455-4189	723-6623		521-0723	
David Moon	276	455-4176	442-9206	201-5035	201-7243	704-201-5035
Steve Novak	237	455-4137	875-3457	201-5038	201-7243	704-201-5038
Plant Office	250	455-4150				
Marty Poplin	270	455-4170	849-2320			
Tim Renckens	286	455-4151	948-3999			
John Troutman	255	455-4155		785-1029	559-3649	888-625-4222
Andy Zahora	258	455-4158	573-3122			
HAZWOPER TEAM						
Kirk Adams	282	455-4102	938-7405		529-2040	
David Adcock	255	455-4155	932-8331			
Bobby Baggett	283	455-4177	455-5603	201-5044	201-7243	704-201-5044
Syl Bartos	238	455-4138	846-3973	201-5040	201-7243	704-201-5040
Emanuel Caldwell	255	455-4155	786-6847			
Heath Howie	271	455-4171	545-5073	201-5047	201-7243	704-201-5047
Ken Mason	255	455-4155	986-0908			
Marty Poplin	270	455-4170	849-2320			
John Troutman	255	455-4155		785-1029	559-3649	888-625-4222
John Williams	255	455-4155	788-4789			
FIRST AID RESPONDERS						
Kim Anderson		Bobby Baggett		Nelson Bennett		
Buford Bost		Joe Coleman		Joe Creech		
Trevor Feaster		John Grier		Charles Kirkpatrick		
Heath Howie		Marty Poplin		Glen Ramseur		
Jerry Reid		Tim Renckens		Brian Sewell		
Jeff Shipp		Derek Stevenson		Craig White		

2.6 Key Personnel Addresses

OFFICE ADDRESSES IN ALL CASES ARE:

Chemical Specialties, Incorporated

Physical Address:

5910 Pharr Mill Road
Harrisburg, North Carolina 28075

Mailing Address:

Post Office Box 1330
Harrisburg, North Carolina 28075

PERSONAL ADDRESSES

Syl Bartos
11832 Provincetowne Drive
Charlotte, NC 28277

Heath Howie
6511 Lebanon Road
Charlotte, NC 28227

3.0 PLANT RISK EVALUATION

3.1 *Oil and Hazardous Waste Capacities and Locations*

Maximum Normal Storage Capacity

- 40,000 gallons of #2 fuel oil
- 80, 1-cubic yard waste boxes of untreated hazardous waste
- 500,000 gallon catch basin for rainwater and spill control of untreated hazardous waste.
- 9,233,000 cubic feet of treated hazardous wastes (closed lagoons).
- One roll-off container of untreated hazardous waste.
- Other roll-off containers of treated hazardous and non-hazardous wastes

Normal Daily Throughput

- 20 gallons per day of #2 fuel oil
- 3 cubic yard waste boxes of untreated hazardous waste

The facility includes the following storage tanks, ponds and areas:

Key No. (See Appendix 1A & 1B)

1. Two 20,000 gallon #2 oil cylindrical tanks; vertical, above ground
2. Lagoon #1 one half acre spill holding pond
- 2a. Two fiberglass intermediate tanks and a concrete sump are used as surge tanks prior to emptying into Lagoon #1, above.
3. Lagoon #2 one half acre filled, treated hazardous waste settling pond (closed with #4 as non-hazardous).
4. Lagoon #3 one half acre filled, treated non-hazardous waste settling pond (closed with #4 as non-hazardous).
5. Lagoon #4 one half acre filled, treated hazardous waste settling pond (closed as non-hazardous).
6. Lagoon #5 one active 2 acre non-hazardous NPDES equalization and settling pond.

7. 90-day storage area for untreated hazardous waste.
8. 90-day storage area for untreated hazardous waste in a roll-off container for waste generated from the arsenic acid reclamation filter press.
9. 90-day storage area for untreated hazardous waste in a 55 gallon drum for waste generated from the cleaning of an in-line magnet on a pneumatic conveying system for arsenic trioxide. (Only when in-line magnet is being used).
10. Other 90-day storage for untreated hazardous waste in roll-off containers may be located throughout the plant on an as needed basis for spill clean-up.
11. Hazardous waste accumulation (Satellite Storage Areas) prior to transfer to normal storage area indicated by #7 above. Appendix 1B includes a detailed list of the satellite storage areas for hazardous waste.

3.2 Oil Systems

a. Oil Tanks

1. All oil tanks comply with Underwriters Laboratory specifications.
2. Tank venting capacities are adequate for fill and withdrawal rates.
3. Both 20,000 gallon tanks are equipped with a visual float and pulley type measuring device and ground level readout.
4. The loading pipework for the two large tanks are manifold, which allows both tanks to be filled simultaneously.
5. All pump starters and valves regulating flow from the storage tanks are equipped with locks and are locked out when not in use.
6. All transfer piping is located above ground.
7. During filling, one man is assigned to supervise the filling operation so that the tanks will not overflow. In addition, each tank will be measured prior to filling.
8. Loading lines are capped when not in use.
9. Sufficient drainage capacity is provided to allow transfer lines, pumps, and other equipment to be drained prior to performing maintenance work.
10. An unloading checklist is posted in an easily accessible place and a sign to remind the operator to proceed according to these listed instructions is installed at the unloading point.

b. Inspections and Testing

1. All tanks have been filled with their original loading of fuel or other petroleum products and inspected for leakage.
2. A monthly visual inspection of piping seams, flanges, gaskets, bolts, valves, pumps and nozzle connections is scheduled. Visible leaks are corrected promptly whether discovered during or between inspections.

3.3 Hazardous Materials

- a. A variety of hazardous materials are located on site, in tanks and vessels. The actual contents of these tanks can be determined from the site map and associated equipment listing.
- b. Each tank is labeled with a laminated sign which indicates the contents of the tank, the first aid precautions, the fire fighting procedures, the handling requirements and the HMIS designation for the material.
- c. Each tank is also labeled with the appropriate NFPA designation for the material it contains.
- d. Buildings are labeled with a NFPA designation for the contents of the structure. This determination takes into account the relative hazards and quantities of specific materials present in the structure. It does not necessarily represent the most significant hazard of every chemical in the building.
- e. MSDS's are available from the Compliance Manager if needed.

3.4 Security Measures

- a. The site is enclosed within a 6 foot height chain link fence topped with barbed wire.
- b. An code controlled access gate is used to control entry to the site of unauthorized individuals.
- c. 198 Chief Operators control access and ensure security at the site on weekends, 2nd & 3rd shift and holiday operations.

3.5 *Spill Containment Systems*

a. Dikes and Holding Ponds

1. A 2 foot retaining embankment has been constructed around the two fuel oil storage tanks. Capacity of the embankment is adequate to contain the entire contents of one of the 20,000 gallon tanks in the event of massive spill and still have 6 inches of freeboard to allow for the effects of a hard rain and or wear along the top of the embankment. Slope of the embankment is 2:1.
2. The diked area will drain into a sump inside the dike, from which spilled oil may be removed by portable pumps. This will prevent accidental release of spilled oil, which could occur if a channel with a gate valve were provided in the dike. Rainwater can also be removed by pumping, when desired.
3. Existing floor drains inside the boiler room lead through a 10 inch sloped drain to an existing 1/2 acre spill holding pond. This should be adequate to contain spills which occur inside the building.
4. The existing 10 inch drain line described above, passes outside of the diked area on its way to the 1/2 acre diked pond. Provision for tying into this pipe can provide a means of back-up confinement to keep oil out of the river, should the banked area around the tanks be found inadequate. However, in order to keep a spill confined in the smallest area possible, and to keep different types of waste material separated, connection of this drain with the diked area will not be made unless it becomes urgent to do so.
5. The fuel unloading station is located at the upper end of a roadside drainage area of sufficient capacity to contain the contents of one tank truck compartment. The lower end of this drainage area leads into a catch basin through an iron grate, which will be removed and replaced with a leakproof cover whenever loading operations take place.
6. The spill holding pond (Lagoon #1) is lined . The dike is sufficiently high to contain any spills which may overflow into the spill holding pond.
7. A catastrophic tank failure within the tank farm, main plant or railsiding would be directed to the spill holding pond (Lagoon #1) through the site drain network (See Appendix 2).

8. Loaded and unloaded tank trucks are parked on a paved drained area near the railsiding. The drains from this area are connected into the site drainage network and collected in the spill holding pond.

b. Inspections and Testing

1. All ponds handling normal process wastes or spills are inspected on a routine basis. Key components of the waste treatment system such as pumps, valves and tanks are inspected at the frequencies called for in the Environmental Inspection Report
2. All inspections are performed in accordance with the Environmental Inspection Program

3.6 *Spill Prevention*

- a. To protect our environment and work area, the best spill procedure is prevention. In the event of a fuel spill, fuel will be contained in the fuel containment area and will be recovered by pumping it into a tank truck. Small amounts can be absorbed with oil absorbing materials and should be landfilled under existing waste streams established for the site. If waste streams are not in effect the Hazardous Waste Management Program Administrator or alternate should be contacted to determine the best means of disposal. Soaps and or detergents are NOT to be used in cleaning a spill.
- b. Report leaky valves, fittings, flanges, joints and pumps at once. Follow up to ensure proper repairs are made.
- c. Stay alert when filling a vessel. Overfilling is our major problem. Monitor the level constantly. If the vessel is equipped with level instruments or alarms, make sure they are turned on and operating properly.
- d. Check transfer hoses and connections for wear. Repair or replace BEFORE a leak occurs.
- e. Make certain lines are blown with air, pumps drained, etc., for maintenance and contract workers in your area per the Permit-to-Work and Lockout/tagout Procedures.
- f. The V.P. of Operations is designated as responsible individual for oil spill prevention and hazardous waste spill prevention. He will ensure that all applicable personnel are trained in the proper operation of equipment to prevent discharges, and shall see that they are instructed in the applicable laws, rules and regulations.

5.0 NOTIFICATION PROCEDURES AND COMMUNICATIONS

5.1 *Emergency Identification*

5.1.1 Spill Detection

- a. Spill detection and notification is the responsibility of the following people:
1. Receiving personnel, especially during the loading unloading of fuel and chemicals.
 2. Personnel responsible for waste treatment operations and performing environmental inspections
 3. Production and maintenance personnel, who may observe a spill during plant operations or maintenance.

5.1.2 Fire/Smoke Detection

The site is equipped with ADT Focus 100 Unit used for Fire/Smoke Detection within the plant production areas, warehouses and electrical switchgear rooms. The system will automatically notify the authorities; however, ADT operators will advise the site personnel of an alarm condition and of their subsequent actions. Site personnel must then be familiar with the system to identify the area of concern and communicate that to site and outside emergency personnel. The system is composed of the following:

- A. Supervisory Monitor
- B. Fire Alarms/Flow Switches
- C. Fire Pump Running/Failure/AC Power Loss Switches
- D. Smoke Detectors

The system operates using a code + location format. During normal operations the unit displays the time. Abnormal or alarm conditions are as follows:

- A. Fire/Smoke
 - 1. F - Code + Location Number
- B. Pump Conditions
 - 1. C - Code + Item Number
- C. System Failures
 - 1. P - Code + Location/Item Number (open wires)
 - 2. J1, J2, J3 (phone trouble)

The supervisor unit which displays abnormal and alarm conditions and allows for system reset is located in Bldg-13, also called the Plant Office, as well as in the Main Office. The other location codes used in conjunction with the alarm conditions indicated above are as follows on the next page:

LOCATION CODE

PHYSICAL LOCATION

F 46 - Switchgear Next to Boiler	Bldg-10
F 47 - Switchgear 198 Plant	Bldg-28
F 48 - Switchgear CCN Drumming Room	Bldg-16
F 49 - Switchgear S-8 Building	Bldg-1
F 50 - S-8 Building	Bldg-1
F 51 - Production Offices	Bldg-8
F 52 - Industrial Plant	Bldgs-14,15,16,17,35,36
F 53 - Laboratory	Bldg-5
F 54 - Maintenance Shop	Bldg-4
C 55 - Pump Running	Pump Conditions (Pump House Bldg-29)
C 56 - Pump Failure	Pump Conditions (Pump House Bldg-29)
C 57 - AC Power Failure	Pump Conditions (Pump House Bldg-29)
F 58 - Office Trailers	Bldgs-6,7,39
F 59 - Trioxide Warehouse	Back; lower lot
F 60 - Drivers' Trailer	Bldg-9
F 61 - Engineering Trailer	Back of Bldg-4
F 62 - R&D Office Trailer	Bldg-40

5.1.3 Other Emergency Conditions Requiring Action

In addition to spills and fire/smoke detection for notification, the following require notification of the emergency response team:

- a) Serious employee/contractor injury (potential LTA)
- b) Extensive property damage (over \$5,000)
- c) Bomb threat
- d) Site visit by outside agency
- e) Major process losses (release in excess of RQ - See Appendix 8 only the copies of this plan in the main plant office and Compliance Manager's office will contain this Appendix)
- f) Transportation accident (DOT reportable accidents, spills)
- g) Natural Disaster (snow, ice, hurricane, tornado)
- h) Structure Failure
- i) Shutdown of the Fire Protection Sprinkler System
- j) Employee confrontations

5.2 *Internal Notification System*

In the event of incidents or situations which meet the criteria for spills, fire/smoke detection, or items from the addition events from above the emergency response team should be contacted by contacting the primary emergency response coordinator and alternates if the primary is not available.

The following procedure should be used:

1. Assess what happened, if there are casualties, what could happen next, and what can be done.
2. Leave the area immediately.
3. Contact your supervisor or shift manager as appropriate.
4. The Supervisor should then contact the Emergency Response Coordinator. Use the following information to contact those individuals.

5.2.1 Normal Work Hours (8 - 5 Weekdays)

All Senior Operators, Chief Operators and Senior Managers are equipped with portable 2 way radios. These radios are used to notify personnel in the event of a spill, fire or other events.

5.2.2 Off-Hours (other than 8 - 5 Weekdays)

Use the following scheme to contact the coordinator (see Section 2.5 - Key Personnel Contact Numbers for Numbers):

- A. Home Phone
- B. Local Pager Network (ie. 559-**** numbers)
- C. Nationwide Network
- D. Car Phone
- E. Repeat for next alternate.

Contact should only be made by supervisory personnel. Others may only be contacted if the above listed individuals are not present or are requested to do so by the above personnel.

5.2.4 Instructions for using the emergency telephone/radio interconnect system:

A. Dialing an outside number with the radio phone

1. Press the "talk key" - the large button on the side of the radio.
2. While holding the talk key, simultaneously press the * button. on the front of the radio.
3. Release the talk key. This should give you a dial tone.
4. Dial the numbers as you would on any other phone. This should ring the other person's phone.
5. Proceed with the conversation, pressing the talk button when you wish to speak. Remember, the conversation is being heard by everyone in the Plant as well as anyone monitoring our frequency on a scanner.
6. When the conversation is completed, press the talk key and the # button on the keypad at the same time for one second. This should produce 3 rapid beeps which indicate that your call is now disconnected.

B. Receiving an Outside Call.

1. When an outside call comes in, the phone radio will ring like a normal phone. When you hear the ring, simultaneously press the talk button and the * button and then let go. This will connect you with the call.
2. Press the talk key and identify Chemical Specialties and identify yourself to the caller.
3. Proceed with the conversation, pressing the talk button when you wish to speak. Remember, the conversation is being heard by everyone in the Plant as well as anyone monitoring our frequency on a scanner.
4. When the conversation is completed, press the talk key and the # button on the keypad at the same time for one second. This should produce 3

rapid beeps which indicate that your call is now disconnected.

5.3 External Notification System

If outside assistance is deemed necessary by the Emergency Coordinator, they shall contact the appropriate authorities identified in this section and section 5.4.

NOTE: When outside assistance requested, upon their arrival, situation control transfers to that agency. The Emergency Response Coordinator and the Cabarrus County Emergency Services will then assist in the coordination of personnel and resources.

The level of involvement and specific areas of responsibility will be determined at the time of the incident. The following is a guide to be utilized in the selection of the agency to be contacted.

a. **POLICE, FIRE OR EMERGENCY MEDICAL**

In the event that police, fire, and or emergency medical assistance is needed, CABARRUS COUNTY EMERGENCY SERVICES (CCES) is to be contacted at 911. Their switchboard operator will contact the appropriate service needed and dispatch them to our site. CCES has a copy of the contingency plan. The Harrisburg Volunteer Fire Department is familiar with the facility through a joint training session held at the HVFD training center and at the Chemical Specialties, Inc. site.

b. **MINOR INJURIES**

OHS in Concord (704-783-1791) has been designated for treatment of this company's employees for minor injuries. The doctors at this clinic have acquired specialized knowledge of the effects of the chemicals handled at this facility and have acquired substantial experience in the treatment of problems we may experience. If an employee needs treatment for more serious injuries, they are to be sent to the Cabarrus Memorial Hospital emergency room (704-783-1617). Hospital personnel shall be advised of the properties of the materials handled at the facility through the OHS physicians who as indicated above are familiar with the chemicals handled. OHS is associated with the Cabarrus Memorial Hospital.

It is requested that contaminated personnel be decontaminated as much as possible prior to transport and that an MSDS be faxed to the Emergency Room at 704-783-1655.

c. **SERIOUS INJURIES & FATALITIES**

For extremely serious injuries the Harrisburg Rescue should be contacted through the CCES at 911. Within 8 hours after the death of any employee from a work related incident or the in-patient hospitalization of three or more employees as a result of a work-related incident, report the event by telephone to the Area Office of OSHA. This applies also to a fatality or multiple hospitalization occurring within 30 days of an incident.

d. **HAZMAT ASSISTANCE**

In the event that the Emergency Coordinator makes the decision that a hazardous material spill cannot be handled by plant personnel, he will contact CCES at 911 and request for HAZMAT assistance. CCES will dispatch the Mecklenburg County HAZMAT team to the site.

e. **CLEAN-UP CONTRACTOR**

If the Emergency Coordinator determines that spill remediation cannot be performed by plant personnel, clean up personnel shall be contacted by CSI to perform such operations. Possible clean-up companies are:

Thompson Industrial Services, Inc. 800-849-8040
Southern High Pressure Cleaning 800-927-0210

f. **EVACUATION REQUIRED**

If the Emergency Coordinator determines that the evacuation of local areas may be advisable, he/she must immediately contact the CCES at 911.

5.4 National/State Notification System

If a spill leaves MRC property or if a spill or air release in excess of the compounds RQ, the acting Emergency Coordinator shall notify each of the following agencies **WITHIN 1 HOUR OF THE INCIDENT** with the information required in Section 5.5:

- a. Cabarrus County Emergency Services
Ben Mabrey, Sr., Director
792-0421
788-3108 (Dispatch)

- b. N.C. Emergency Response Number
1-919-733-5291 (Hours 8:00am-5:00pm)
1-919-733-3861 (24 hr number)
1-704-633-1699 (Mooresville Office)

- c. U.S. Environmental Protection Agency
1-404-881-4062 (24hr EPA Region IV)
1-404-881-4096 (business hrs.)

- d. National Response Center
1-800-424-8802 (24hr number)

5.5 Incident Reporting Requirements

The following information must be supplied when reporting an incident to the National/State contacts listed in Section 5.4 :

- a. Name and telephone number of reporter.

Name: _____ Phone: (704) 455-5181

- b. Name and address of facility.

Chemical Specialties, Inc.
5910 Pharr Mill Road
Harrisburg, North Carolina 28075

- c. Time and type of incident (e.g., release, fire).

- d. Name and quantity of material(s) involved, to the extent known.

- e. The extent of injuries, if any.

- f. The possible hazards to human health, or the environment, outside the facility.

The following information must be entered in the operation records of the facility the following information, and submit it in written form to the U.S. Environmental Protection Agency Region IV within fifteen (15) days of the incident:

- a. Name, address and telephone number of the owner or operator.
- b. Name, address and telephone number of the facility.
- c. Date, time and type of incident (e.g., release, fire).
- d. Name and quantity of material(s) involved.
- e. The extent of injuries, if any.
- f. An assessment of actual or potential hazards to human health, or the environment where this is applicable.
- g. Estimated quantity and disposal of recovered material that resulted from the incident.

5.6 Media / Neighborhood Notification System

During emergency situations the Emergency Response organization Public Relations Officer will coordinate all media contacts. In most cases, these individuals will submit a written statement in conjunction with the Cabarrus County Emergency Center following an incident. Neighborhood contacts or concerns following a situation or other reason will be handled by Syl Bartos or David Moon in that order.

All incidents which might affect the neighborhood are also reviewed with the Community Advisory Panel (CAP) which is comprised of residents and site employees.

5.7 Notification Prior to Resuming Operations

The Emergency Coordinator must ensure that the following are performed prior to resuming operations in the affected areas of the facility:

- a. No wastes or materials that are incompatible with the released material are allowed to enter the area until cleanup procedures are completed.
- b. All emergency equipment utilized in the cleanup procedures are decontaminated and ensured fit for use in accordance with Section 11.9 of this plan.
- c. The Emergency Coordinator must notify the National/State contacts listed in Section 5.4 that the facility has performed the above steps and that the facility is ready to resume operations.

6.0 EMERGENCY EQUIPMENT AND FACILITIES

6.1 *Communications*

Emergency equipment is strategically placed throughout the site to respond to two types of emergencies; chemical spills and fires. All Senior Operators, Chief Operators and Senior Managers are equipped with portable 2 way radios. These radios are used to notify personnel in the event of a spill, fire or other events.

6.2 *Spill Response and Cleanup Equipment*

Spill response and cleanup equipment is inspected per the schedule presented in the Environmental Inspection Report.

- a. Eyewash/safety showers are located in 61 various locations around the plant. Appendix 3 contains a coded map and corresponding key to all stations on the plant site. Women on site requiring safety shower access should immediately utilize a nearby shower to remove the bulk of the chemical. As soon as reasonably possible, she should be quickly moved to either the 198, industrial or maintenance showers by another woman on site. Here she should remove all affected clothing and shower per normal procedures.
- b. SCBA are available in the HAZWOPER Response Box located behind the Maintenance Shop. Additional SCBA and air line egress equipment is available in the Confined Space Entry Rescue Box located either in the Main Warehouse (Bldg. 15) or at entry locations which will vary from day to day.
- c. A John Deere tractor is garaged at the maintenance shop and can be operated by personnel trained in its use. It is inspected and maintained by an outside firm on a monthly basis.
- d. Hand implements (shovels, rakes, & buckets) are stored in the Back Warehouse - Bldg 17 and the Maintenance Shop.
- e. Approved waste drums and liners are located in the Back Warehouse - Bldg 17.
- f. Sodium Bisulfite and Lime for spill neutralization is located in the Back Warehouse - Bldg 17.

- g. Bags of absorbent, used to solidify spills, are located in the Back Warehouse - Bldg 17.

6.3 Fire Response Equipment

- a. Hose stations and fire hydrants are located in 5 areas around the site. Appendix 4 is a site map and key showing the location of each. Detailed information on the mechanics of the pumping station and water storage are explained in Appendix 5. Hydrant are inspected and lubricated annually by an outside firm.
- b. Hand held fire extinguishers are stationed at various locations around the site. A map and key is in Appendix 4 noting the approximate locations of fire extinguishers. The exact number and location of fire extinguishers changes periodically. The fire extinguishers are inspected monthly by an outside firm.
- c. A plant sprinkler system is in place in six buildings, each building having a separate header. If header pressure is lost, a horn will sound in the main plant office, alerting personnel of fire. Flow in the plant sprinkler system is also detected by the ADT system which alerts the local fire department. This ADT system is inspected monthly. The details of the water storage and backup pumping system are explained in Appendix 5.

6.4 Toxic Gas Detection

- a. Drager type toxic gas monitoring equipment is available in the closet inside the spare office opposite the Safety Manager's office. Detectable gases are as follows:

- HCl - Hydrochloric acid
- NO_x - Oxides of Nitrogen
- NH₃ - Ammonia
- HNO₃ - Nitric acid
- Cl₂ - Chlorine
- Acetic/Formic(Propionic) acids

6.5 Decontamination Equipment

- a. Equipment decontamination is performed using water pressure washers available in the Maintenance Shop or hoses with plant water.
- b. Personnel decontamination is performed using safety showers as indicated in Section 6.2a.

8.0 TRAINING REQUIREMENTS AND DRILLS

Below is a summary of the training and instruction conducted with plant personnel:

- a. All personnel are oriented to this contingency plan as outlined on the Contingency Plan Training Syllabus. A separate syllabus is generated for each training section and will be found with the training records. This training is reviewed annually.
- b. All personnel involved in the management of hazardous waste are trained in accordance with the Hazardous Waste Management Program.
- c. All plant supervision, maintenance, and operating personnel are instructed on the prevention, containment, and clean-up of chemical spills.

10.0 PLAN UPDATES

This plan is reviewed by management personnel on an annual basis and or when the plan is amended or changed. See Appendix 7 for a list of revisions and the revision dates.

c

11.0 EMERGENCY RESPONSE PROCEDURES

11.1 *Spill Response Checklist*

- _____ Evacuate all unnecessary individuals from the area, once machinery is shutdown per emergency shutdown procedures.
- _____ In the event of a site-wide or community evacuation follow evacuations procedures in Section 11.6 & 11.7.
- _____ Verify the identity, amount and hazards of the material (refer to MSDS).
- _____ Notify appropriate Site Response Teams per Section 2.4.
- _____ Utilize specific Spill Clean Up Procedures when appropriate. (See Sections 11.2, 11.3, 11.4)
- _____ Ensure that the response team is wearing all appropriate PPE.
- _____ Contain the spill and keep from entering drains, etc.
- _____ Neutralize the spill if applicable.
- _____ Determine the need for outside assistance such as HVFD, police, contract cleanup or Hazmat. See External Notification Protocol in Section 5.3. (Once HVFD or Hazmat arrives, site control is relinquished to them).
- _____ Verify if the quantity is a Reportable Quantity per Appendix 8.
- _____ Contact appropriate agencies per Section 5.4 and 5.5.
- _____ Absorb the spill and deposit in appropriate, labeled containers.
- _____ Clean-up the spill area.
- _____ Decontaminate all equipment and ensure fit for use per Section 11.9.
- _____ Signal the end of the emergency.

11.2 Wood Products Area Spill Cleanup

When a spill occurs, proceed with instructions below:

- a. Protect yourself against chemical contact by using proper protective equipment.
- b. Contain the spill to avoid runoff to Plant drains or to the environment.
- c. Neutralize uncontained chrome spills (CCA, Chromic Acid, Bichromate, or Waste Water) by first covering with sodium bisulfite to reduce the chrome. The liquid will change color from orange-yellow to green. Then add lime to the spill to neutralize the liquid. The color will change from a clear green to a heavy green sludge.
- d. Contained chrome spills are washed to sumps in the Wood Products Area only.
- e. Neutralize 198 spills with lime only.
- f. Contained CCA, chromic acid and 198 spills are washed to sumps in the Wood Products Area only.
- g. Add sufficient absorbent to absorb the liquid.
- h. Transfer the sludge to an approved hazardous waste container for disposal.
- i. Do not wash uncontained spills, treated or untreated, down the drain.
- j. Report all leaks and spills to the supervisor.
- k. MSDS's are available in locations specified in Section 3.3e of this Contingency Plan.

11.3 Industrial Products Area Spill Cleanup

THIS DOES NOT APPLY TO SPILLS OF HYDROGEN PEROXIDE. For a spill of HYDROGEN PEROXIDE consult the Hydrogen Peroxide Production Procedures

When a spill occurs, proceed with instructions below:

- a. Protect yourself against chemical contact by wearing proper protective equipment. Information on personal protective equipment for all chemicals on site can be found in the Material Safety Data Sheets (MSDS's). MSDS's are available in locations specified in Section 3.3e of this Contingency Plan.
- b. Contain the spill to avoid runoff to Plant drains or to the environment.
- c. If any of the material has already spilled to a Plant drain, allow it to flow to the Lined Lagoon. If the spill occurred inside the Production Building and is already in the Waste Treatment Sump area, use bag lime if needed to protect the system from a pH below 7.0. Contact the Environmental Assistant, the Environmental Manager or the Compliance Manager for further instructions.
- d. If any portion of the chemical spilled can be safely reused as product or raw material, it should be. Try to collect the spill in an empty tank which is compatible with the chemical. (For example, you would not want to put a hydrochloric acid spill in a mild steel tank.)
- e. If the material cannot be reused, use lime to neutralize acids and absorbent to solidify liquids. Then collect the resulting material in a proper container (see the MSDS for container guidelines, or ask someone in the Compliance Department)

**DO NOT FLUSH SPILLS TO WASTE TREATMENT UNLESS
Directed to do so by a manager**

11.4 Hazardous Waste Spills

When a spill of SOLID Hazardous Waste occurs, proceed with instructions below:

- a. Isolate the area from other plant personnel.
- b. Remove enough boxes of waste material to gain access to the spilled material.
- c. Be sure that the boxes being removed are not contaminated.
- d. Clean-up the spilled material with a dust pan and broom and dispose of the material in a hazardous waste box. Be certain to wear a full-face respirator and approved HEPA cartridge filter during this activity.
- e. Spills of hazardous waste should be documented using the Accident/Incident Form and the Box Number from the hazardous waste box should be indicated on the accident report.

When a spill of LIQUID Hazardous Waste occurs, proceed with instructions below:

- a. Contain the spill to avoid runoff to drains
- b. Neutralize uncontained chrome spills (CCA, Chromic Acid, Bichromate, or Waste Water) by first covering with sodium bisulfite to reduce the chrome. The liquid will change color from orange-yellow to green. Then add lime to the spill to neutralize the liquid. The color will change from a clear green to a heavy green sludge.
- c. Contained chrome spills are washed to sumps in the Wood Products Area only.
- d. Neutralize 198 spills with lime only.
- e. Contained CCA, chromic acid and 198 spills are washed to sumps.
- f. Add sufficient absorbent to absorb the liquid.
- g. Transfer the sludge to an approved hazardous waste container for disposal.
- h. Do not wash uncontained spills, treated or untreated, down the drain.

11.5 Release Response Checklist (Non-Routine Air Emission).

- _____ Evacuate all unnecessary individuals from the area, once machinery is shutdown per emergency shutdown procedures.
- _____ In the event of a site-wide or community evacuation follow evacuations procedures in Section 11.6 & 11.7.
- _____ Verify the identity, amount and hazards of the material (refer to MSDS).
- _____ Notify appropriate Site Response Teams per Section 2.4.
- _____ Ensure that the response team is wearing all appropriate PPE.
- _____ Stop the release.
- _____ Determine the need for outside assistance such as HVFD, police, contract cleanup or Hazmat. See External Notification Protocol in Section 5.3.

(Once HVFD or Hazmat arrives, site control is relinquished to them).
- _____ Verify if the quantity is a Reportable Quantity per Appendix 8.
- _____ Contact appropriate agencies per Section 5.4 and 5.5.
- _____ Signal the end of the emergency.

11.6 Evacuation Checklist

- _____ Determine the wind direction the potential path of the release or vapor cloud.
- _____ Determine the best assembly point from that information.
- _____ Contact the Receptionist/Shift Manager and inform him/her that an evacuation is being initiated.
- _____ Indicate if this a Mock Evacuation or an Actual Evacuation.
- _____ Indicate to the receptionist/shift manager which assembly point is to be used and have him/her repeat it back.
- _____ Tell them to activate the phone intercom system or radio and notify all site personnel.
- _____ Begin transmitting the evacuation message to other site personnel via radio as follows:

ATTENTION! ATTENTION!
THE SITE EMERGENCY RESPONSE COORDINATOR HAS ISSUED A
SITE-WIDE
(MOCK) EVACUATION.
(give reason for evacuation and wind direction)
EVERYONE PLEASE PROCEED TO THE
(HIGHWAY 49 PLANT GATE / REAR OF MAINTENANCE SHOP)
ASSEMBLY POINT.
(if it is a mock emergency drill skip the following)
THIS IS NOT A TEST. THIS IS AN ACTUAL EVACUATION!
(repeat the above once more)

- _____ At the assembly location begin to acquire head counts as follows:
 - _____ Wood Missing: _____
 - _____ Industrial Missing: _____
 - _____ Maintenance/Contractors Missing: _____
 - _____ Lab/R&D Missing: _____
 - _____ Administration/Visitors Missing: _____
- _____ Communicate the headcount to HVFD and if any individuals are missing and where they maybe.
- _____ Determine if evacuation further off-site is required and where to go.

11.7 Emergency Evacuation Procedures (See Appendix 6)

If a site evacuation is deemed necessary by the Emergency Coordinator the following procedure should be utilized along with the Evacuation Protocol on the next page.

1. The Emergency Coordinator will instruct the following individuals that an evacuation is required:

Weekdays On-Shift..... Select Member of Response Team
Weekdays Off-Shift Weekends/Holidays..... Supervisor

2. The receptionist shall obtain a copy of the appropriate Evacuation Protocol and shall circle each instruction on the protocol as directed by the Emergency Coordinator.
3. The Emergency Coordinator shall indicate which assembly point to proceed to.
4. The receptionist should repeat the instruction back to the Emergency Coordinator to ensure accuracy.
5. The individual shall then follow the procedure on the Evacuation Protocol.
6. The 198 Chief Operator on off-shift, weekends or holidays duty may use the Evacuation Checklist (Section 11.6) in lieu of the Evacuation Protocol. They shall however, proceed through the checklist with the Emergency Response Coordinator.

**EVACUATION PROTOCOL
RESPONSE TEAM MEMBER / SUPERVISOR**

1. YOU WILL BE CONTACTED BY THE EMERGENCY RESPONSE COORDINATOR THAT AN EVACUATION IS REQUIRED.
2. THE EMERGENCY RESPONSE COORDINATOR WILL INDICATE WHAT THE REASON FOR THE EVACUATION IS, THE RELATIVE WIND DIRECTION AND WHICH ASSEMBLY POINT IS TO BE USED (ie. PRIMARY OR SECONDARY).
3. REPEAT BACK THE INFORMATION TO THE EMERGENCY RESPONSE COORDINATOR.
4. CONTACT ALL EMPLOYEES BY ACTIVATING THE TELEPHONE SYSTEM INTERCOM AND THE BASE RADIO.
5. INFORM ALL EMPLOYEES BY ANNOUNCING THE FOLLOWING:

**ATTENTION! ATTENTION!
THE SITE EMERGENCY RESPONSE COORDINATOR HAS ISSUED A
SITE-WIDE
(MOCK) EVACUATION.**

(give reason for evacuation and wind direction)

**EVERYONE PLEASE PROCEED TO THE
(HIGHWAY 49 PLANT GATE / REAR OF MAINTENANCE SHOP)
ASSEMBLY POINT.**

(if it is a mock emergency drill skip the following)

THIS IS NOT A TEST. THIS IS AN ACTUAL EVACUATION!

(repeat the above once more)

6. GET THE FOLLOWING:

EVACUATION HEADCOUNT SHEET or SIGN-IN SHEETS
VISITOR LOG (if appropriate)
PENS
7. LEAVE THE AREA AND PROCEED TO THE ASSEMBLY POINT.
8. AT THE ASSEMBLY LOCATION GIVE THE APPROPRIATE SUPERVISORS THE ABOVE INDICATED ITEMS.

9. CHIEF OPERATORS ARE CONSIDERED TO BE THE ACTING AUTHORITY ON SITE UNTIL OTHER SUPERVISORS ARRIVE.

The following procedures should be followed by site personnel when informed of a site evacuation.

- a. When informed via hand held radio or through the telephone intercom system, all personnel are to proceed to either the primary or secondary location on foot only. Proceed in an orderly fashion as quickly as possible. DO NOT RUN!
- b. Plant Operations personnel should evacuate only after performing appropriate shutdown procedures.
- c. The Primary Assembly Location is the Highway 49 Plant Entrance.
- d. The Secondary Assembly Location is behind the maintenance shop.
- e. The Assembly Location will be determined by taking into consideration wind direction and emergency conditions.
- f. Personnel should take an appropriate route to the assembly location. This route should be chosen to avoid visible smoke, visible gas clouds or in the case of invisible vapor avoid area with a discernible odor.
- g. Employees should locate their supervisors at the assembly area and report in when their name is called.
- h. The receptionist will bring the headcount sheet to the Assembly Location and Supervisors will conduct a headcount and report any missing persons to the Emergency Coordinator. Supervisors will control the Assembly Location.
- i. If it becomes necessary to leave plant property, as determined by the Emergency Response Coordinator, you will be advised as to where to assemble. Exceptional care should be taken in both crossing Pharr Mill Road and/or the railroad tracks at the old entrance. Supervisors are responsible for their employees.

11.8 Fire Fighting Procedures

- a. Notify a supervisor or other employee prior to attempting to fight the fire.
- b. The supervisor/shift supervisor/security guard should contact the emergency response team immediately.
- c. Only attempt to fight fires that can be easily controlled by the use of a fire extinguisher.
- d. Use the proper fire extinguisher for the type of fire.
- e. Fires which cannot be extinguished using a fire extinguisher should be handled by the Site Early Response Team for Fires, see Section 2.4. The Emergency Response Coordinator will dispatch the Site Early Response Team.
- f. Fires that cannot be extinguished using conventional fire extinguishers and require the response of the Site Early Response Team require that the Harrisburg Volunteer Fire Department be contacted through the CCES. The Emergency Response Coordinator will contact the receptionist and request the HVFD using the External Notification Protocol outlined in Section 5.3. The Emergency Response Coordinator will contact the HVFD if the receptionist is not available.

11.9 Equipment Decontamination and Fit for Use Procedures

a. RCRA Hazardous Waste Contaminated Equipment

1. Place the contaminated equipment in the concrete loading area in driveway #3.
2. Small pieces of equipment can be rinsed off using plant water supplied through a hose.
3. Large pieces of equipment shall be decontaminated using pressure wash equipment located in the Maintenance Shop and 198 Plant.

b. RCRA NON-Hazardous Waste Contaminated Equipment

1. Place the equipment in the main driveway near the waste treatment plant.
2. Small pieces of equipment can be cleaned using plant water supplied through a hose.
3. Large pieces of equipment shall be cleaned using pressure wash equipment located in the Maintenance Shop and 198 Plant.

c. Fit for Use

1. All equipment utilized in a spill response, following decontamination, will be inspected to ensure that it is fit to be used as intended in the future.

11.10 Personnel / Clothing Decontamination Procedures

- a. Personnel and clothing decontamination is performed using safety showers as indicated in Section 6.2a.

11.11 Fire System Impairment Procedures

This procedure MUST be followed when ever any portion of the fire sprinkler system is shutdown for either testing, preventative maintenance, repair or in an emergency. This procedure applies to all components of the fire protection sprinkler system including but not limited to underground services, pumps, fire service control valves and the sprinkler headers.

- a. Immediately contact the Emergency Response Coordinator or the secondary coordinator.
- b. The following must then be contacted and informed that the fire protection sprinkler system will be impaired, in what areas of the plant, and for what duration:
 1. CCES - 788-3108
Non-Emergency Dispatcher
 2. Ben Mabrey, Sr., Director
792-0421
 3. Royal Insurance Company - Loss Control (704) 362-4481
after hours (704) 522-4357.
 4. ADT - 376-8535 (specify the expected code_location (see Section 5.1.2 and indicate the system number from the ADT supervisor inside panel door.)
 5. Building / Site Occupants
- c. A tag is then affixed to the sprinkler system/ header to indicate to the occupants that the system is out of operation.
- d. Complete a Impaired Fire Protection Form and Fax to Royal Insurance at (704) 362-4481.
- e. Once the system is placed back on-line contact the above to indicated that the system is now operational.
- f. Remove any and all impairment tags.

11.12 First Aid Procedures

This procedure MUST be followed when ever there has been an injury or illness on site.

1. Contact a member of the First Aid/CPR team. Sheets of the members are located throughout the plant.
2. The First Aid/CPR team member will then administer any appropriate first aid/CPR.
3. The First Aid/CPR team member will determine if outside assistance is needed and communicate that need to the Emergency Response Coordinator.
4. The Emergency Response Coordinator will contact the appropriate personnel per the External Notification procedures outlined in Section 5.3.
5. The First Aid/CPR team member is responsible for any and all cleanup of the area per the Bloodborne Pathogens Program.

11.13.1 Cubic Yard Box / Drum 90-Day Storage Area Evacuation Procedures

This procedure **MUST** be followed when ever there is a situation that warrants the evacuation of the 90-day storage area. (See the 90-day Storage Evacuation Plan included in Appendix 6 - Evacuation Routes.)

1. The primary evacuation route from the 90-day storage area is to proceed north through the warehouses to the Breakroom and contact the Emergency Response Coordinator.
2. The secondary evacuation route from the 90-day storage area is to proceed through the CCA Building exit door then to proceed south to the 198 Plant Breakroom and contact the Emergency Response Coordinator.

11.13.2 Roll-off Dumpster 90-Day Storage Area Evacuation Procedures

1. Follow routes previously defined for Site evacuations.

11.13.3 90-Day Storage for In-line Magnet Area Evacuation Procedures

1. Follow routes previously defined for Site evacuations.

13.0 DOCUMENTATION

- a. A copy of this plan shall be distributed according to the list presented in Appendix 9.
- b. In the event that a spill leaves MRC property, the Accident/Incident Investigation form and any additional documentation shall be completed and submitted to the U.S. EPA.
- c. Any and all events meeting criteria established in this plan must be investigated and an Accident/Incident form generated. (See Accident Incident Investigation Procedures).
- d. Since the facility is a RCRA Part A/B Permitted Facility, copies of the Contingency Plan are an integral part of our Part A/B Permit. Thus, when changes are made to the plan a copy of the plan and revisions made should be forwarded to:

Mr. James A. Carter, Chief
Hazardous Waste Section
Department of Environment, Health and Natural Resources
P.O. Box
Raleigh, NC 27611-7687

personnel in the permitting office will then advise as to the level of Modification the changes require and copies are then sent to the individuals indicated their response letter.

- e. Copies of the return receipts for distributed copies of the Contingency Plan are maintained in file.

Region 4 Compliance Data Entry Form - Side A

(Rev. 8/97)

FACILITY INFORMATION:	Submittal Information	Initial Date -	Corrected Date -
	EPA ID Number: <u>NC0048467427</u>	RCRA Comp. Section: Received: Entered/ Returned:	____ / ____ / ____ ____ / ____ / ____ ____ / ____ / ____

Facility Name: Chemical Specialties, Inc. City: Harrisburg, NC

EVALUATION DATA: New: Change: Delete: (: Required)

Agency: <u>3</u>	Date: Mo. <u>12</u> / Day <u>16</u> / Year <u>98</u>	Type: <u>CEZ</u>	Control Number Data Entry Personnel
Person: <u>030</u>	Reason: <input type="checkbox"/>		<input type="checkbox"/>

Evaluation Comments:
(74) 1 : In Compliance
2 :

SNC DETERMINATION: If this evaluation resulted in a SNC determination, fill in this block. (NOTE: SNC determinations are SNY/SNN evaluations. The SNY/SNN evaluation can also be submitted later on a separate form.)

Facility is (Check one) Date of determination:
 a SNC (SNY evaluation)
 or no longer a SNC (SNN eval.) Same as above eval.: or / /

VIOLATION DATA: New: Change: Delete:

Agency: Type: Date (mdy) Determined: / / Class:
 Priority: Branch: Person: Seq. Number (Data Entry)
 Return to Compliance: / / -- Scheduled -- --- Actual ---
 Reg. Type: Reg. Description (30): _____

Comment (72): _____

Agency: Type: Date (mdy) Determined: / / Class:
 Priority: Branch: Person: Seq. Number (Data Entry)
 Return to Compliance: / / -- Scheduled -- --- Actual ---
 Reg. Type: Reg. Description (30): _____

Comment (72): _____

Agency: Type: Date (mdy) Determined: / / Class:
 Priority: Branch: Person: Seq. Number (Data Entry)
 Return to Compliance: / / -- Scheduled -- --- Actual ---
 Reg. Type: Reg. Description (30): _____

Comment (72): _____

*** EPA Region 4 Compliance Data Entry Form -Side B *** (8/97)

Fill out facility information on Side A, then come back to this side.

ENFORCEMENT DATA: New: <input type="checkbox"/> Change: <input type="checkbox"/> Delete: <input type="checkbox"/> (==: Required)			
Agency: <input type="text"/>	Type: <input type="text"/>	Date: <input type="text"/> / <input type="text"/> / <input type="text"/>	Seq.# (Data Entry) <input type="text"/>
Person: <input type="text"/>	Branch: <input type="text"/>	Poll. Prev. Measures: <input type="text"/>	<input type="text"/>
Penalty Data Proposed: <input type="text"/>	1) Payments: <input type="text"/>		Date Paid: <input type="text"/> / <input type="text"/> / <input type="text"/>
Settled/Final: <input type="text"/>	2) <input type="text"/>		<input type="text"/> / <input type="text"/> / <input type="text"/>
Enforcement Comments: 1: _____ (74)			
2: _____			
Cite violations addressed by this action below -			
VIOLATION DATA: New: <input type="checkbox"/> Change: <input type="checkbox"/> Delete: <input type="checkbox"/>			
# Agency: <input type="text"/>	Type: <input type="text"/>	Date (mdy) Determined: <input type="text"/> / <input type="text"/> / <input type="text"/>	Class: <input type="text"/>
Priority: <input type="text"/>	Branch: <input type="text"/>	Person: <input type="text"/>	Seq. (Data Entry) Number <input type="text"/>
Reg. Type: <input type="text"/>	Return to Compliance: <input type="text"/> / <input type="text"/> / <input type="text"/>	-- Scheduled --	--- Actual --- <input type="text"/> / <input type="text"/> / <input type="text"/>
Reg. Description (30): _____			
Comment (72): _____			
# Agency: <input type="text"/>	Type: <input type="text"/>	Date (mdy) Determined: <input type="text"/> / <input type="text"/> / <input type="text"/>	Class: <input type="text"/>
Priority: <input type="text"/>	Branch: <input type="text"/>	Person: <input type="text"/>	Seq. (Data Entry) Number <input type="text"/>
Reg. Type: <input type="text"/>	Return to Compliance: <input type="text"/> / <input type="text"/> / <input type="text"/>	-- Scheduled --	--- Actual --- <input type="text"/> / <input type="text"/> / <input type="text"/>
Reg. Description (30): _____			
Comment (72): _____			
# Agency: <input type="text"/>	Type: <input type="text"/>	Date (mdy) Determined: <input type="text"/> / <input type="text"/> / <input type="text"/>	Class: <input type="text"/>
Priority: <input type="text"/>	Branch: <input type="text"/>	Person: <input type="text"/>	Seq. (Data Entry) Number <input type="text"/>
Reg. Type: <input type="text"/>	Return to Compliance: <input type="text"/> / <input type="text"/> / <input type="text"/>	-- Scheduled --	--- Actual --- <input type="text"/> / <input type="text"/> / <input type="text"/>
Reg. Description (30): _____			
Comment (72): _____			
# Agency: <input type="text"/>	Type: <input type="text"/>	Date (mdy) Determined: <input type="text"/> / <input type="text"/> / <input type="text"/>	Class: <input type="text"/>
Priority: <input type="text"/>	Branch: <input type="text"/>	Person: <input type="text"/>	Seq. (Data Entry) Number <input type="text"/>
Reg. Type: <input type="text"/>	Return to Compliance: <input type="text"/> / <input type="text"/> / <input type="text"/>	-- Scheduled --	--- Actual --- <input type="text"/> / <input type="text"/> / <input type="text"/>
Reg. Description (30): _____			
Comment (72): _____			

More violations for this enforcement action on other side ? Yes No

Is your RETURN ADDRESS completed on the reverse side?

SENDER:

- Complete items 1 and/or 2 for additional services.
- Complete items 3, 4a, and 4b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):

- 1. Addressee's Address
- 2. Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

Mr. Syl Bartos
 Chemcal Specialties
 Post Office Box 610
 Harrisburg, NC 28075

4a. Article Number

Z 560 749 879 (12/16/98)

4b. Service Type

- Registered Certified
- Express Mail Insured
- Return Receipt for Merchandise COD

7. Date of Delivery

12/18/98

5. Received By: (Print Name)

Terry A. Bartos

8. Addressee's Address (Only if requested and fee is paid)

6. Sign

PS F

Receipt

Thank you for using Return Receipt Service.

RCRA INSPECTION REPORT

1. **Facility Information:** Chemical Specialties Inc. (CSI)
5910 Pharr Mill Road, P.O. Box 610
Harrisburg, N.C. 28075
NCD048467427
2. **Facility Contact:** Mr. Syl Bartos
704/377-6555
3. **Survey Participants:** Syl Bartos, Brent Rockett, Brent Burch
4. **Date of Inspection:** December 16, 1998
5. **Purpose of Inspection:** To determine compliance with 40 CFR 262, 264, 268, and 279.

6. **Facility Description:** CSI is a manufacturer of inorganic chemicals predominately used in the wood preserving industry. The facility closed four surface impoundments. Waste removed from the impoundments was removed and stabilized with portland cement and fly ash. The stabilized waste was then land disposed in an on-site landfill designated #3. The landfill covers 1.074 acres and 345,856 cubic feet of stabilized hazardous waste was disposed of in the fill area. The facility presently maintains one impoundment holding treated wastewater which is discharged to the Rocky River under an NPDES permit. The plant wastewater is treated with lime to raise the pH and to stabilize metals. Wastewater discharged to the river must be at a pH of ≤ 9.0 . The facility maintains another impoundment for spill release purposes.

7. **Type Waste:**

- D004 - hazardous waste solid (arsenic).
- D004/D007/D009 - hazardous waste solid (chromium trioxide, arsenic petroxide).
- P012/D009 - hazardous waste solid (arsenic trioxide).
- D001/U044 - waste flammable liquid (ethyl alcohol, formaldehyde).

8. **Areas of Inspection**

(Yes = compliance, no=violation, na=not applicable)

- Emergency Preparedness: Yes
- Inspection Records: Yes
- Contingency Plan: Yes
- Training Records: Yes
- Manifests/LDR: Yes

Page Two
Chemical Specialties Inc.
NCD048467427
December 16, 1998

- **90/180 Day Storage Areas:** The facility maintains two areas for <90 day storage of hazardous waste. The main storage area is located in the warehouse. At the time of the inspection, 15 boxes containing P012/D004 arsenic trioxide contaminated debris were located in the storage area. Also, 2 - 55 gallon containers of P012 waste were located in the storage area. The boxes, and containers were labeled, dated, and closed.

- **Satellite Accumulation Areas:** The facility maintains eighteen satellite accumulation areas. All containers used for satellite accumulation of hazardous waste were found to be labeled and closed. One 30 yard roll-off container used for the accumulation of the 198 AA recovery sludge (arsenic) must be treated as a <90 day storage area due to its location. This container was dated, labeled, and closed.


-**External Facility Condition:** Good condition

-**Other HW Units:** The facility has a closed hazardous waste landfill. The landfill is subject to Part B permitting requirements as a disposal facility and is subject to corrective action. The facility maintains six groundwater monitoring wells to monitor the closed units. No erosion was noted on the landfill cap.

9. **Waste Minimization:** The facility maintains a written plan. The facility is exploring many methods to reduce the amount and toxicity of hazardous and solid wastes that are generated.

10. **Site Deficiencies:**

In Compliance.


INSPECTOR (DATE)

sent certified mail
FACILITY CONTACT

Division of Waste Management
Hazardous Waste Section

December 16, 1998

Memorandum

To: File

From: Brent Burch 

Subject: Financial Liability Requirement

Chemical Specialties, Inc.

NCD048467427

Cabarrus County, N.C.

Per Ms. Jenny Lopp, the subject facility is using a letter of credit to meet financial obligation. The amount is \$341,994.00 for post closure. The expiration date is 10/13/99.

GROUND WATER INSPECTION FORM - PART 265

Name of Site: Chemical Specialties, Inc.

EPA I.D.: NCD048467427

County: Cebarrus

Inspection Date: 12/16/98

Signature of Inspector(s): [Signature]

Signature of Facility Contact: _____

In each blank place a "C" for in compliance, or an "X" for not in compliance, or a "N/A" if not required. All blanks should be completed.

SUBPART F - GROUND WATER MONITORING

1. Install, operate, and maintain ground water monitoring system in compliance with 265.90(b) reference 265.91 or 265.90(d)

C minimum of 4 wells installed; one of the wells must be installed upgradient and the other wells must be located downgradient of the waste management area; the downgradient wells must be as close as technically feasible to the limits of the waste management area.

2. Ground Water Sampling and Analysis Plan

C developed and maintained in accordance with 265.92(a)

3. Ground Water Assessment Plan [(265.93(d)(2))]

C developed and submitted to the State Program Administrator, if required.

4. Quarterly/Semi Annual Ground Water Sampling [265.93(d)(7)]

C ~~quarterly~~ and/or semi-annual ground water samples collected and analyzed as specified.

5. Record Keeping and Reporting [265.94(b)]

C maintain records of ground water sample analyses at the facility.

N/A submit annual report containing the results of the Groundwater Assessment Program by March 1, 19__.

Division of Solid Waste Management
Hazardous Waste Section

Chemical Specialties, Inc
NCD 048467427
Cabarrus County, N.C.

Date: 12/16/98

**TSDF INSPECTION FORM - PART 264
SUPPLEMENTAL CHECKLIST FOR FACILITY - SPECIFIC CONDITIONS**

1. Post -closure documents to be maintained at facility site (Permit Conditions I.F.).

- C Corrective action system operation and maintenance plans.
- C Cost estimate for corrective action system.
- C Post-closure plan(s).
- C Cost estimate for post-closure care.
- C Inspection schedules developed in accordance with 264.15(b).
- C Operating record required by 264.73 and Permit Condition III. E.
- C Corrective Action Plans and reports required by 264.101.
- C Groundwater monitor records used to develop reports required by the permit.
- C A survey plat and record of the type, location and quantity of hazardous waste or hazardous constituents disposed of within each cell or area of the facility (to include solid waste management units) as required by 264.119.
- C All reports and documentation of compliance with 264.118(a), (b)(1) and (2) during the post-closure period.

State of North Carolina
Department of Environment, Health, and Natural Resources
Division of Solid Waste Management
Hazardous Waste Section

SITE SAFETY PLAN (SSP) UPDATE FORM
(Regulated Facility)

(A) Facility Name: Chemical Specialties, Inc. EPA ID# NC D048467427
Address: 5910 West Mill Rd, Harrisburg, NC 28705 Phone# 704/6377-6555
Contact: Mr. Syl Santos Phone# _____
Facility Safety Designee: Mr. Heath Howie
HWS Staff: Brent Busch, O30 Date: 12/16/98

(B) REVIEW AND CHANGES

SSP Reviewed: SSP Changed: (1) SSP Unchanged:

Comments: _____

(1) NOTE: Any changes made in the facility process descriptions or health and safety considerations section of the SSP must be shown on a new SSP.

(C) EMERGENCY INFORMATION

Ambulance: Harrisburg Rescue Telephone# 911
Hospital: North East Medical Center Telephone# 911
Police: Cabarrus County Emergency Service/Harrisburg PD Telephone# 911
Fire Dept.: Cabarrus County Emergency Services Telephone# 911
Fire & Emergency Signals Reviewed: yes
Site Evacuation Plan Reviewed: yes

SAFETY OFFICER: _____ DATE: _____

Waste generated @ CSI;

Biennial Report - Date: 12/26/98
(From Chiller Unit)

Waste Streams

- Waste generated by R&D / 1004/1007/1009 -
similar to production, including quartz
- Rubbish & debris contaminated with chromium
copper arsenate - mixture of filter
cartridges, rags, gloves, etc. -
1004/1007/1009 1004/1007/1009
ultra wood contaminated w/ arsenic acid -
- Filter Waste from production of arsenic acid
mixture of arsenic acid, diatomaceous
earth & insoluble iron compounds 1004/1007/
1009 1009 : ultra wood base 1004/1007 -
- Rubbish & debris contaminated with arsenic
& mercury mixture of filter cartridges,
rags, gloves, etc. 1004/1007 1004/1007 -
- Shredded polypropylene bags which have
1012/1009 residues of arsenic trioxide & mercury
- clean out of dikes - contains contaminated dirt
1004/1007

- arsenic acid contaminated w/ ultra wood
wax emulsion. 1010/1002/1009

ICD 9 592.00-592.99

Ethylene glycol contaminated w/ arsenic DO04 (From Chiller unit)

- Waste from 2nd filtration of arsenic acid during production, mixture of arsenic acid, diatomaceous earth, insoluble iron compounds DO04
- Arsenic Trichloride left in shredded bag PO12/DO04/DO09
- Ultrawood contaminated w/ arsenic acid DO04/PO10
- Dirt contaminated w/ the chromate mixture Copper arsenate DO04/DO04
- Filtered Lagoon water: PO12/DO04
- Spill Cleanup of arsenic trichloride spill DO04/PO12
- Lab Pack DO04/DO09
- Ultrawood is airway penetrant used in water proofing the wood

DO04/DO04/DO09
DO04/DO04/DO09

RCRA INSPECTION REPORT

(x= violation, na= not applicable)

General Information:

Facility Name CSI (Chemical Specialties Inc.)
Location 5910 Pharr Mill Rd.
Mailing Address P.O. Box 610, Harrisburg, NC 28705
EPA I.D.# NC2048467427 Phone # 704/377-6555
Contact/ Title Mr. Syl Buxton / Compliance Manager
Inspection Date 5/20/98 Last Inspection 5/19/97
Status LQG / Permitted Disposal Facility Type of Inspection CEI
Waste Management Specialist(s) Grant Burch and Jesse Wells
Present at Inspection Heath Howie, Tim Renckens
Type of Business _____

Waste Generated 0004 - the waste still (Arsenic); 0004/0007/0009 - acid (chromium trioxide, arsenic pentoxide)
0004/0009 - solid (arsenic, mercury); 0012/0009 - arsenic trioxide; 0004/0009/0009 - waste liquid; 0001 - mineral spirit

Manifests:

Approved Transporters? Approved TSD's?
Signed Copies? Filled Out Correctly?
LDR Notification Attached?

T. South Co. NC6000002501, T. Ecoflo - NC2980842132, T. STAT - NC2980799142
D. Ecoflo, Inc. - NC2980842132

Waste Minimization? How? unable to locate

Hazardous Waste Inspection Records:

Inspections On Storage Area 4/23/98 was last one found.
Inspections On H.W. Tanks _____
Inspection On Ancillary Equipment _____

Contingency Plan:

On Site?
Any changes to facility/ processes or Emergency Coordinators since last review? No
Contingency Plan used? No (if yes, was it adequate?) _____
Agreements with Emergency Responders?

Training Records:

Certified Training Documents Available? unable to locate job titles / Harringtons
Any New Employees Since Last Review? yes
Evidence Of Improper/ Inadequate Training? No

8/18/97, 8/24/97, 8/20/97
8/19/97, 8/26/97, 8/28/97, 6/19/97, 12/4/97
1/4/98

Facility Name _____ EPA I.D.# _____
Inspection Date _____

Employee Interview:

Names(s) _____ Trained _____

Annual Report Submitted? unable to locate Copy At Facility? ✓

Emergency Preparedness:

Facility Maintained And Operated To Prevent Releases? yes
Internal Communications Or Alarm Present? Alarm throughout
Device In Area Of Operation To Summon Outside Help? radios
Portable Fire Extinguishers And/ Or Fire Control Equipment? 2 fire extinguishers, hoses, sprinklers (- 1 cold)
Spill Control Equipment? absent
Adequate Water Volume, Foam, Equipment, Or Auto Sprinkler? monthly - Self-Healing Foam
All Equipment/ Alarms Tested And Maintained? ADT / monthly
All Personnel Handling H.W. Have Access To Alarm/ Device? radios
Aisle Space In Area Of Facility Operations? yes

Satellite Accumulation Area(s) 19 Location(s) (on pad)

Containers: Closed? ✓ Labeled? ✓ <55 gal. ✓ Stored <3 days if full? ✓
Storage Area(s): 2 Description 1 roll off - 2

Containers: Closed? ✓ Aisle space? ✓ Labeled? ✓ Releases? No
Dated? ✓ <90 days? ✓ Good condition? yes

Other H.W. Units: (Applicable Regulations)

Description of Unit _____

External Facility Condition _____

Facility Name _____ EPA I.D.# _____

Inspection Date _____

Site Deficiencies:

- 1.) 40 CFR _____

- 2.) 40 CFR _____

- 3.) 40 CFR _____

- 4.) 40 CFR _____

- 5.) 40 CFR _____

- 6.) 40 CFR _____

Recommendations/ Violations Continued: _____

RCRA Inspector (date)

Facility Contact (date)

Follow Up Inspection:

Comments _____

RCRA Inspector (date)

Facility Contact (date)

Satellite Acc. - ¹ Waste Paint - F003 - Maintenance Shop - 55 gal.
- secondary containment

² - Used Oil - sent for recycling
- needs to have words "Used Oil" on container

³ CCA bags - maintenance shop - 20 gal.

⁴ Risk Treatment - CCA sludge - 55 gal

⁵ Risk Treatment - CCA contaminated mat. - 20 gal

⁶ Risk Lab - CCA cont. mat. - 20 gal

⁷ Q&A Lab - 6 containers - CCA cont. mat. - 5 gal

⁸ Wood Products Loading Seal - 55 gal. - CCA mat and spillage

⁹ No. 4 Warehouse - Arsenic Trioxide cont. debris - solids - 10 gal

* ¹⁰ AA Recovery Sludge Roll-off - arsenic - subject to 90 day

¹¹ 198 Dirty side showers - debris - 10 gal

¹² 198 Breakroom - gloves - 10 gal

¹³ Arsenic Area fobony Vacuum

- ⑭ Manual Drum unloading - arsenic trioxide - 10 gal
- ⑮ Old 158 Control Room - 10 gal. - gloves
- ⑯ New control room - 10 gal - gloves, debris
- ⑰ Copper Nitrate ^{Production} - 10 gal - gloves, debris
- ⑱ ~~158~~ 158 CC lab - gloves ~~10 gal.~~ - 10 gal.
- ⑲ Bulk bag unloading - debris
- ⑳ ~~CCAT~~ CCAT Production - lower level - gloves, debris

Storage Area - 4 boxes - unblinker, debris & arsenic trioxide
- 2 - 55 gal containers (1-2/24/98) - P waste

NORTH CAROLINA DEPARTMENT OF
ENVIRONMENT AND NATURAL RESOURCES
DIVISION OF WASTE MANAGEMENT



JAMES B. HUNT JR.
GOVERNOR

WAYNE McDEVITT
SECRETARY

WILLIAM L. MEYER
DIRECTOR

October 7, 1998

CHEMICAL SPECIALTIES INC
PO BOX 610
HARRISBURG, NC 28075-

RE EPA ID NO.: NCD048467427

Dear Sir/Madam:

Based on information received by this office for the site identified with the EPA ID number, the state has accepted and processed the change in RCRA classification or information for the above site.

Please verify the computer generated information on the attached report and notify us of any corrections. We are advising EPA of the changes.

Enclosed you will find some information we hope will be helpful. If you have any questions or if I can be of any further assistance, please call me at (919)733-2178 ext.209.

Sincerely,

R. J. Edwards, Administrative Assistant
Division of Waste Management



cc:

RECEIVED
N.C. Dept. of EHNR
OCT 12 1998
Winston-Salem
Regional Office

State of North Carolina
 Department of Environment
 and Natural Resources
 Division of Waste Management



P. O. Box 29603
 Raleigh, North Carolina 27611-9603
 Voice 919-733-2178

October 7, 1998

**Notification of Hazardous Waste Report
 Current Computer Record**
 'X' indicates operation status of your facility.

EPA ID#: NCD048467427
 Company name: CHEMICAL SPECIALTIES INC
 Owner: CHEMICAL SPECIALTIES INC
 Contact: SYLVESTER BARTOS, COMP MGR
 Phone number: 704/455-5181
 Location address: 5910 PHARR MILL RD
 City, St & ZIP: HARRISBURG, NC 28075-

<p>Generator</p> <p><input checked="" type="checkbox"/> LARGE GENERATOR <input type="checkbox"/> SMALL QNTY GENERATOR <input type="checkbox"/> EXEMPT SMALL QNTY <input type="checkbox"/> LG QNTY. UNIVERSAL</p> <p>Transporter</p> <p><input type="checkbox"/> For own waste only <input checked="" type="checkbox"/> For commercial purposes</p> <p>Transportation</p> <p><input type="checkbox"/> Air <input type="checkbox"/> Rail <input checked="" type="checkbox"/> Highway <input type="checkbox"/> Water <input type="checkbox"/> Other</p>	<p>TSD</p> <p><input type="checkbox"/> STORES <input type="checkbox"/> TREATER <input checked="" type="checkbox"/> DISPOSER</p> <p>Hazardous Waste Fuel</p> <p><input type="checkbox"/> Gentr marketing to burner <input type="checkbox"/> Other marketers <input type="checkbox"/> Burner <input type="checkbox"/> 1. Smelter deferral <input type="checkbox"/> 2. Small qunt. exempt</p> <p>Combustion Devices</p> <p><input type="checkbox"/> Utility boiler <input type="checkbox"/> Industrial boiler <input type="checkbox"/> Industrial furnace</p>	<p>Used Oil Fuel Marketer</p> <p><input type="checkbox"/> Marketer directs shipment of used oil to off-specification burner <input type="checkbox"/> Marketer who first claims the used oil meets specifications</p> <p>Used Oil Burner-Combustion Devices</p> <p><input type="checkbox"/> Utility Boiler <input type="checkbox"/> Industrial Boiler <input type="checkbox"/> Industrial Furnace</p> <p>Used Oil Transporter Activities</p> <p><input type="checkbox"/> Transporter <input type="checkbox"/> Transfer facility</p> <p>Used Oil Processor/Re-refiner Activities</p> <p><input type="checkbox"/> Process <input type="checkbox"/> Re-refine</p>
---	---	--

**Please notify us if there is any further change in your operation which would affect your status specifically
 Company's Name, Ownership, Address, Contact or Telephone Number.**

Your EPA ID number is currently active.

NORTH CAROLINA DEPARTMENT OF
ENVIRONMENT AND NATURAL RESOURCES
ASHEVILLE REGIONAL OFFICE

April 9, 1998



JAMES B. HUNT JR.
GOVERNOR

WAYNE McDEVITT
SECRETARY

Mr. Sylvester J. Bartos
Chemical Specialties Inc.
Mineral Research & Development
PO Box 610
5910 Pharr Mill Road
Harrisburg, North Carolina 28075

Dear Mr. Bartos:

I have reviewed the regulations concerning the waste determination issues surrounding the totes that contained arsenic that your plant generates. The following is an outline of the pertinent regulations.

40 CFR 261.7(a)(1) states that any hazardous waste remaining in a container, as defined in paragraph(b) of this section, is not subject to regulation under parts 261 through 265, or part 268, 270 or 124 of this chapter or the notification requirements of Section 3010 of RCRA.

Paragraph (b) of that section states: a container that has held an acute hazardous waste listed in Section 261.31, 261.32, or 261.33(e) is empty if the container has been triple rinsed using a solvent capable of removing the commercial chemical product or the container has been cleaned by another method that has been shown in the scientific literature, or by tests conducted by the generator, to achieve equivalent removal. The containers must also have less than 0.3% by weight of the total capacity of the container remaining in them.

The tote containers holding arsenic, which is listed in Section 261.33(e), have been triple rinsed or cleaned and therefore meet the definition of empty. There is no quantity limit on the waste still in the container other than the less than 0.3% by weight of the total capacity of the container requirement. 40 CFR 261.7(a) simply states that any hazardous waste left in the container is not subject to regulation as a hazardous waste if these conditions are met.

The containers that have been triple rinsed or cleaned would therefore NOT be a hazardous waste, whether they have been shredded or not.

Following another line of argument, 40 CFR 261.3(a)(2)(iii)

states that a mixture of a solid waste and a hazardous waste listed in Subpart D, which is listed solely for a characteristic listed in Subpart C, and the mixture no longer exhibits that characteristic, is not a hazardous waste.

In the case of the shredded totes containing arsenic, (listed for the characteristic of arsenic - TCLP 5.0 ppm), the waste would be a mixture of the listed waste and the shredded totes. As the totes, after cleaning, have a TCLP level of less than 5.0 ppm, the waste no longer exhibits the characteristic and therefore would not be a hazardous waste.

If you have any questions concerning this matter, please contact me at (828)251-6208.

Sincerely,



Roberta Proctor, CHMM
Chemist

cc: Doug Holyfield
Keith Masters
Brent Burch

JESSE WELLS

NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
DIVISION OF WASTE MANAGEMENT



February 13, 1998



JAMES B. HUNT JR.
GOVERNOR

WAYNE MCDEVITT
SECRETARY

WILLIAM L. MEYER
DIRECTOR

Mr. Sylvester J. Bartos
Compliance Manager
Chemical Specialties, Inc.
P.O. Box 610
Harrisburg, NC 28075

Re: RCRA Permit Modification Request
Chemical Specialties, Inc.
Facility ID # NCD 048 467 427



Dear Mr. Bartos:

Your request of February 5, 1998 for a permit modification to update the contingency plan has been processed as a class one (1) permit modification under 40 CFR 270.42 as referenced in 15A NCAC 13A .0113. To comply with 40 CFR 270.42 you must notify all persons on the enclosed mailing list with the exception of the State and EPA who have already been notified.

This permit modification does not cause a change in the actual permit document. The attached application pages should replace the corresponding pages in the application.

Approval of this modification is therefore granted and has been incorporated into your permit. If you have any questions, please contact Beth Hartzell at (919) 733-2178 ext. 226.

Sincerely,


James A. Carter, Chief
Hazardous Waste Section

Enclosure

cc: Narindar Kumar, US EPA, Region IV
A. Preston Howard, Jr., DWQ
Frank W. Clifton, Jr., Cabarrus County Manager
Jesse Wells

rc: Jill E. Burton
Elizabeth A. Hartzell
Katherine L. O'Neal
Kathleen Z. Lawson
Peter L. Doorn

c:\wpfiles\ruth\eah\csi.wpd

MAILING LIST

CHEMICAL SPECIALTIES, INC.
NCD 048 467 429
July 15, 1997

Mr. Narindar Kumar, Chief
RCRA Branch
Waste Management Division
US EPA, Region IV
61 Forsyth St. SW
Atlanta, Georgia 30303

Mr. A. Preston Howard, Jr., P.E., Director
Division of Environmental Management
Post Office Box 29535
Raleigh, North Carolina 27626-0535

Mr. James A. Carter, Chief
Hazardous Waste Section
Department of Environment, Health, and Natural Resources
Post Office Box 29603
Raleigh, North Carolina 27611-9603

Mr. Frank W. Clifton, Jr
Cabarrus County Manager
Government Center
65 Church Street, SE
Concord, North Carolina 28025

Mr. William F. Pilkington
Director, Cabarrus County Health Services
715 Cabarrus Avenue, West
Concord, North Carolina 28025

Mr. Jesse Wells, Waste Management Specialist
 Mooresville Regional Office
Hazardous Waste Section, DEHNR
919 North Main Street
 Mooresville, North Carolina 28115

**EMERGENCY RESPONSE PLAN,
HAZARDOUS WASTE CONTINGENCY PLAN
and
OIL SPILL PREVENTION CONTROL AND COUNTER MEASURE PLAN**

**CHEMICAL SPECIALTIES, INC.
P.O. BOX 1330
HARRISBURG, NORTH CAROLINA 28075**

**Prepared to comply with SPCC Plan and Hazardous Waste
Contingency Plan according to 40 CFR, Parts 112, 264 and
265.**

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1.0 FACILITY INFORMATION

Facility Name and Location

Chemical Specialties, Incorporated

Physical Address:

**5910 Pharr Mill Road
Harrisburg, North Carolina 28075**

Mailing Address:

**Post Office Box 1330
Harrisburg, North Carolina 28075**

Normal Working Hours:

**24 hours per day
7 days per week**

Owner:

**Laporte, Incorporated, U.S.
One Woodlawn Green
Charlotte, North Carolina 28217**

David W. Moon, Vice President of Operations

Initial Date of Operation: 1964

2.0 PLANT EMERGENCY ORGANIZATION

The following individuals comprise the Harrisburg Site Emergency Response Team. Each heading represents the function of key individuals. Alternates for the functions, in lieu of the absence of the primary member (designated as No. 1), are indicated in descending order under each heading.

The Emergency Response Coordinator has the authority to commit all necessary company resources to the implementation of this Contingency Plan.

2.1 *Emergency Response Coordinators*

1. Syl Bartos
2. Heath Howie

2.2 *Public Relations Officer*

1. David Moon
2. Syl Bartos

2.3 *Specialists*

Wood & Industrial

1. Steve Novak
2. Bobby Baggett

Site Utilities

1. Doug Barnette
2. John Troutman

Site Safety (all areas)

1. Heath Howie
2. Syl Bartos

Transportation

1. Syl Bartos
2. Nicki Fabry

Laboratory/R&D

1. Lehong Jin
2. Andy Zahora



6/16/97

Mr. Jesse Wells, Waste Management Specialist
Mooresville Regional Office
Hazardous Waste Section, DEHNR
919 North Main Street
Mooresville, North Carolina 28115

Re: Updated Contingency Plan
NCD 048 467 427

Dear Mr. Wells:

We have again updated our Contingency Plan due to the addition of a hazardous waste satellite container. This revision to the previous plan is listed on the sheet titled "Contingency Plan Updates/Revisions." Please replace the current sheets listed in this revision with the enclosed sheets, and place the update sheet in Appendix 7.

If you have any questions concerning this update to our Contingency Plan, please do not hesitate to contact either Syl Bartos (CSI Compliance Manager) at (704) 455 - 4138 or myself.

Thank you for your time in this matter.

Sincerely,

A handwritten signature in cursive script that reads "Paul Miano".

Paul Miano
Environmental Manager
Chemical Specialties, Inc.
(704) 455 - 4145

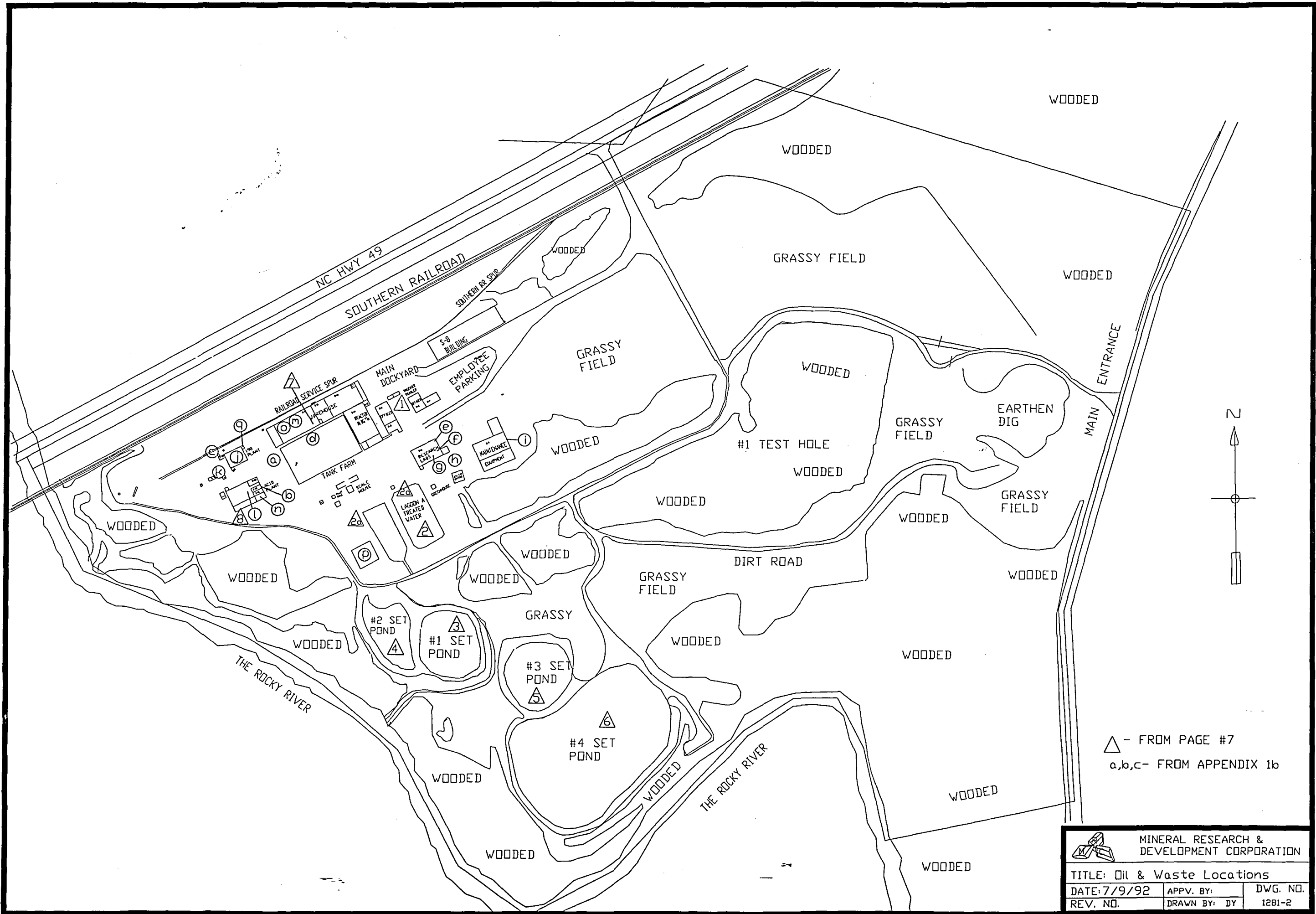
Enc.


Revision Date 6/16/97

Section **Revisions**

Appendix - 1A Modified drawing to show the location of the new satellite accumulation container in Bldg. 126.
(Replace drawing for this update)

Appendix - 1B Added satellite accumulation area "q" to the list.
(Replace Appendix -1B for this update)



 MINERAL RESEARCH & DEVELOPMENT CORPORATION		
TITLE: Oil & Waste Locations		
DATE: 7/9/92	APPV. BY:	DWG. NO.
REV. NO.	DRAWN BY: DY	1281-2

ACCUMULATION
and
SATELLITE ACCUMULATION AREAS

The building locations can be found on drawings at the Site; the letter references can be located on the drawing in Appendix 1A of this Contingency Plan

- | | |
|---|--------------------------------------|
| a. Under Loading Mezzanine in Driveway # 3 | Drive # 3 |
| b. Arsenic Acid Rotary Vacuum Filter Room
(Includes filter and collection container) | Bldg. 23 |
| c. Copper Nitrate Production Area | Near R-501 |
| d. Two in the CCA Production Area
1 - Lower Level
2 - Mezzanine Level | Near R-91 & R-92
Near R-91 & R-92 |
| e. All 6 QC Laboratories, except the Environmental Lab | Bldg. 5 |
| f. R & D Laboratory | Bldg. 5 Basement |
| g. R & D Treatment Cylinder Area | Bldg. 5 Basement |
| h. Outside Bldg. 5 Extension
(Two 55-gallon containers) | Bldg. 5 Basement |
| i. Maintenance Shop
1-CCA Contaminated Rubbish/Debris in Shop Area)
2-Spent Paint Thinner in Truck Bay
3-Paint Rags in Truck Bay | Bldg. 4 |
| j. Old 198 Control Room (Blue Room)
New 198 Control Room | Bldg. 31
Bldg. 34 |
| k. 198 QC Lab | Downstairs from
Bldg. 31 |
| l. 198 Breakroom | Outside Bldg. 22 |
| m. Bulk Bag Facility (includes machine and collection drums) | Bldg. 36 |
| n. Dirty Side of Showers | Bldg. 216 |
| o. Bulk Bag Facility Clean-Out Area | Bldg. 37 |
| p. Warehouse # 4 | Bldg. 230 |
| q. Arsenic Trioxide Manual Drum Unloading Area | Bldg. 126 |

Is your RETURN ADDRESS completed on the reverse side?

SENDER:

- Complete items 1 and/or 2 for additional services.
- Complete items 3, 4a, and 4b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):

- 1. Addressee's Address
- 2. Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

**MR SYL BARTOS
 CHEMICAL SPECIALTIES INC
 5910 PHARR MILL ROAD
 HARRISBURG NC 28075**

4a. Article Number

Z 287 392 838 (06/02/98)

4b. Service Type

- Registered Certified
- Express Mail Insured
- Return Receipt for Merchandise COD

7. Date of Delivery

6.8.98

5. Received By: (Print Name)

6. Signature: (Addressee or Agent)

X Atlas Morgan

8. Addressee's Address (Only if requested and fee is paid)

Thank you for using Return Receipt Service.

SENDER:

- Complete items 1 and/or 2 for additional services.
- Complete items 3, 4a, and 4b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):

- Addressee's Address
- Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

MR SYL BARTOS
 CHEMICAL SPECIALTIES INC
 POST OFFICE BOX 610
 HARRISBURG NC 28075

4a. Article Number
 P 091 713 022 (05/21/97)

4b. Service Type

Registered Certified
 Express Mail Insured
 Return Receipt for Merchandise COD

7. Date of Delivery
 5/21/97

5. Received By: (Print Name)

6. Signature: (Addressee or Agent)
 X *[Signature]*

8. Addressee's Address (Only if requested and fee is paid)

PS Form 3811, December 1994

Domestic Return Receipt

Is your mailpiece complete on the reverse side?

Thank you for using Return Receipt Service.

P 091 713 022
 (05/21/97)

US Postal Service
Receipt for Certified Mail
 No Insurance Coverage Provided.
 Do not use for International Mail (See reverse)

Sent to	Mr. Syl Bartos
Street & Number	Chemical Specialties, Inc.
Post Office, State, & ZIP Code	P.O. Box 610
Postage	Harrisburg, NC 28075
Certified Fee	NCD 048467427 (JWW)
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	\$
Postmark or Date	

PS Form 3800, April 1995

RCRIS

EPA ID #: NCD048467427

FACILITY NAME: Chemical Specialties, Inc.

CITY: Harrisburg, NC

EVALUATION DATA:

NEW: X CHANGE: DELETE:

PERSON: 025

BRANCH: 01

AGENCY: STATE

REASON:

SUPERVISOR NOV TRACKING INFO

TYPE:CSE

INITIAL INSPECTION DATE: May 19, 1997

DOCKET: 97-225

REINSP DATE: June 26, 1997

COMMENTS: Facility Determined to be in Compliance w/NOV Docket #97-225

GENERATORS:

GBF: GER: X GGR: X GLB: X GMR: X GOR: GPT: X GRR: X GSC: GSQ:

TRANSPORTERS:

TGR: TMR: TOR: TRR: TWD:

TSD's

DBF: DCH: DCL: DCP: DFR: X DGS: X DGW: X DIN: DLB: DLF: X

DLT: DMC: DMR: DOR: DOT: DPB: X DPP: X DSI: DTR: DTT: DWP:

USED OIL:

TUO: TFO: BUO: MUO: PUO: RUO:

VIOLATION DATA: New: Change: Delete:

1. Agency: State Type: GGR Date Determined: May 19, 1997

Class: Priority: Seq#

Returned to Compliance: June 21, 1997

Actual Date: June 26, 1997

Req. Description: 40 CFR 262.11

Comment:

2. Agency: State Type: GPT Date Determined: May 19, 1997

Class: Priority: Seq#

Returned to Compliance: June 21, 1997

Actual Date: June 26, 1997

Reg. Description: 40 CFR 262.34(a)(1) ref 265.173(a)

Comment:

3. Agency: State Type: GPT Date Determined: May 19, 1997
Class: Priority: Seq#
Returned to Compliance: June 21, 1997
Actual Date: June 26, 1997
Req. Description: 40 CFR 262.34(a)(1) ref. 265.174
Comment:

4. Agency: State Type: Date Determined:
Class: Priority: Seq#
Returned to Compliance:
Actual Date:
Req. Description:
Comment:

5. Agency: State Type: Date Determined:
Class: Priority: Seq#
Returned to Compliance:
Actual Date:
Req. Description:
Comment:

6. Agency: State Type: Date Determined:
Class: Priority: Seq#
Returned to Compliance:
Actual Date:
Req. Description:
Comment:

7. Agency: State Type: Date Determined:
Class: Priority: Seq#
Returned to Compliance:
Actual Date:
Req. Description:
Comment:

8. Agency: State Type: Date Determined:
Class: Priority: Seq#
Returned to Compliance:
Actual Date:
Req. Description:
Comment:

9. Agency: State Type: Date Determined:
Class: Priority: Seq#
Returned to Compliance:
Actual Date:
Req. Description:
Comment:

RCRA INSPECTION REPORT

General Information

Facility Name: Chemical Specialties Inc. (CSI)

Location: 5910 Pharr Mill Road

Mailing Address: Post Office Box 610, Harrisburg, NC 28705

EPA I.D.#: NCD048467427

Phone #: 704/377-6555

Contact/Title: Mr. Syl Bartos/Compliance Manager

Inspection Date: June 26, 1997

Last Inspection: May 23, 1996

Status: LQG/Permitted Disposal Facility

Type of Inspection: CSE

Waste Management Specialist(s): Jesse W. Wells (025)

Present at Inspection: N/A- Compliance Information Submitted by Paul Miano

Type of Business: CSI is a manufacturer of inorganic chemicals predominantly used in the wood preserving industry. The facility closed four surface impoundments. Waste removed from the impoundments was removed and stabilized with portland cement & fly ash. The stabilized waste was then land disposed in an on-site landfill designated #3. The landfill covers 1.074 acres and 345,856 cubic feet of stabilized hazardous waste was disposed of in the fill area. The facility presently maintains one impoundment holding treated wastewater which is discharged to the Rocky River under a NPDES permit. The plant wastewater is treated with lime to raise the pH and to stabilize metals. Wastewater discharged to the river must be maintain ≤ 9.0 pH. The facility maintains another impoundment for spill release purposes.

Waste Generated: D004-D007-D009 arsenic solids (Rubbish/Debris), P012-D004-D009 arsenic trioxide wastes, P010 arsenic acid waste, F003 paint related wastes

Manifest

Approved Transporters ? Yes

Approved TSDF's? Yes

Signed Copies? Yes

Filled Out Correctly? Yes

LDR Notification Attached? Yes

Waste Minimization:

Written Program: Yes

How: The facility conducts yearly tracking of wastes generated. Facility continues to explore methods to reduce/reuse process chemicals.

Hazardous Waste Inspection Records

Inspection on Storage Area: Yes

Inspection on H.W. Tank(s): N/A

Inspection on Ancillary Equipment:

Other: The facility has specific inspection requirements associated with the Part B permit. Inspection were determined to be in compliance with the permit requirements

Contingency Plan

On Site: Yes

Page Two

Facility Name: Chemical Specialties, Inc

EPA I.D. #: NCD048467427

Inspection Date: June 26, 1997

Any Changes to Facility/Processes or Emergency Coordinators Since Last Review: No

Syl Bartos(P) & Heath Howie (A)

Contingency Plan Used: Yes (If Yes, Was It Adequate): Yes- Arsenic trioxide release on March 22, 1997. Incident recorded in facility's operating record.

Agreements with Emergency Responders: Yes

Employee Interview

Name(s): Mr. Larry Love, Chief CCA Operator

Trained: Yes

Annual Report Submitted: Yes

Copy at Facility: Yes

Emergency Preparedness

Facility Maintained and Operated to Prevent Releases: Yes

Internal Communications or Alarm Present: Yes

Device in Area of Operation to Summon Outside Help: Yes

Portable Fire Extinguishers and/or Fire Control Equipment: Yes

Spill Control Equipment: Yes

Adequate Water Volume, Foam, Equipment, or Auto Sprinkler: Yes

All Equipment/Alarms Tested and Maintained: Yes

All Personnel Handling H.W. have Access to Alarm Device: Yes

Aisle Space in Area of Facility Operations: Yes

Satellite Accumulation Area(s) Number: 15

Location(s):

Containers:

Closed? Yes Labeled? Yes <55 gallons? Yes Stored <3 days if full? N/A

Storage Area(s) Number: Seven at the time of the inspection. Three roll offs containing spill residue from the cleanup of the arsenic trioxide incident were on site. The facility had failed to include the roll-off containers as part of their inspection.

Description: The facility maintains an enclosed <90 day storage area. Persons managing/handling waste in the area are supplied with two-way radios. An additional roll-off in the arsenic acid area, bulk bag collection equipment, one 55 gallon drum holding arsenic trioxide wastes (P012/D009) at sifter installation area.

Containers: Closed? No Aisle Space? Yes Labeled? Yes Releases? No

Dated? Yes

<90 Days? Yes Good Condition? Yes

Other H.W.Units (Applicable Regulations)

Description of Unit: Closed hazardous waste landfill of 1.074 acres. No areas of erosion were

Page Three

Facility Name: Chemical Specialties, Inc
Inspection Date: June 26, 1997

EPA I.D. #: NCD048467427

noted on the landfill cap. The facility maintains six groundwater monitor well to monitor the closed units. The facility is subject to Part B permitting requirements as a disposal facility and is subject to corrective action.

External Facility Condition: Good Condition.

Site Deficiencies:

1.) 40 CFR 262.11- The facility could not identify the contents of three 55 gallon containers and one 5 gallon pail. Two of the 55 gallon containers and the five gallon pail were in storage in the area where empty drums are held prior to processing. The other 55 gallon container was located outside the arsenic storage building.

2.) 40 CFR 262.34(a)(1) reference 265.173(a)- A container holding hazardous waste must always be closed during storage, except when it is necessary to add or remove waste. The band on an open head container was not properly secure. The container held P012 waste which is in a solid form. The waste would likely release from the container should it be accidentally turned over or improperly handled.

3.) 40 CFR 262.34(a)(1)(i) reference 265.174- The facility failed to conduct weekly inspections on three roll-off boxes holding arsenic trioxide spill residue (P012). The containers were dated 4/22/97.

TICKET NOV DOCKET #97-225 Issued for Deficiencies Noted

Recommendations:

1. Ensure that openings on containers are closed such as to prevent the collection of rainwater in the drums.
2. Containers/drums which have been cleaned should be stored such that the collection of rainwater is prevented from accumulating in the drum.

RCRA Inspector (Date)

Facility Contact (Date)

Follow Up Inspection: Compliance information submitted by the facility dated May 27, 1997 indicates that the facility has taken action to comply with NOV Docket #97-225. Information is attached. Facility is determined to be in compliance.

J. L. Wells 6/26/97

RCRA Inspector (Date)

M. L. Facility 6/26/97

Facility Contact (Date)



5/27/97

Mr. Jesse Wells, Waste Management Specialist
Mooresville Regional Office
Hazardous Waste Section, DEHNR
919 North Main Street
Mooresville, North Carolina 28115

Re: Response to Notice of Violation Resulting from 5/19/97 Inspection

Dear Mr. Wells:

This letter is to update you concerning our responses to several items raised during your Site inspection on 5/19/97. Most of the items have been corrected already, and others are in the process of being corrected.

Cited Items of Concern

We could not identify the contents of three 55-gallon containers and one 5-gallon pail during the inspection.

The band on the P012 waste drum was not properly secured.

The facility failed to conduct weekly inspections on three filled roll-off boxes containing hazardous waste.

Chemical Specialties, Inc. Response

The containers were sampled and analyzed; a copy of the Lab results is attached. The drum found outside the arsenic storage building has been labeled as boric acid and the material will be used as a raw material in our fire retardant product. The other three containers found at the empty drum storage area were analyzed as having no RCRA hazardous constituents and will be disposed of properly as non-hazardous waste. We have instructed our employees to be more vigilant in labeling drums; and in preventing empty drums from accumulating stormwater.

Previously, our interpretation of this rule allowed waste drums to be considered closed without being banded. We now understand that you do not consider this adequate, and we will secure the lid to the drum during storage.

We had not previously thought to include roll-off boxes needed for special situations under the same inspection rules as our other 90-day hazardous waste containers. We have now modified our inspection sheet to document our weekly inspections of all hazardous waste containers on site. A copy of the most recent completed inspection sheet is attached.

Other Items of Concern

Several containers stored outside were missing bungs or had no tops, and were accumulating stormwater.

The CCA Wastewater Pit floor has eroded to the point that it appears to have questionable integrity.

Chemical Specialties, Inc. Response

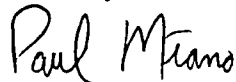
Our standard policy is to invert empty, rinsed non-RCRA containers to avoid stormwater accumulation. Also, it is our policy not to leave drums containing any material unsealed. The Plant Operators involved have been reminded of these rules.

Additional concrete has been poured in the CCA Wastewater Pit to reduce the deterioration. Our Engineering Department is securing bids on installing a carbon steel liner in the pit, which has worked well in other containment pits on site.

We will continue to try to improve our hazardous waste handling and storage procedures. If you have any questions concerning our responses or any additional items of concern, please do not hesitate to call either Syl Bartos at (704) 455-5181 or my direct line at (704) 455-4145.

Thank you.

Sincerely,



Paul Miano
Environmental Manager
Chemical Specialties, Inc.

cc: S. Bartos

To: Steve Novak
From: Jim Driggers
Date: May 22, 1997
Re: Unknown Plant Samples

The four water samples from the subject group were analyzed for metals and pH. All metals detected are listed below and were present at trace levels.

<u>ID</u>	<u>Metals Detected</u>	<u>pH</u>
Drum #1	Mg, Al, Na, Ca, B, Zn	4.1
Drum #2	Mg, B	7.0
Drum #3	Mg, B	7.0
Pail *	Ca, Zn, Mg, B, P	7.0

* Note: This pail also contained an oily layer which appeared to be used oil.

The white powder registered boron only (no other metals were detected). It is therefore boric acid.

CC: Syl Bartos
Paul Miano
Marty Poplin

NOTE: THE 55-GALLON CONTAINER NOTED IN THE N.O.V. AS BEING LOCATED OUTSIDE THE ARSENIC STORAGE BUILDING CONTAINED A WHITE SOLID IDENTIFIED AS BORIC ACID IN THIS MEMO.

THE OTHER TWO 55-GALLON CONTAINERS IN THE EMPTY DRUM STORAGE AREA ARE IDENTIFIED AS DRUM #2 AND DRUM #3 IN THE LAB MEMO. THE PAIL WAS ALSO MENTIONED IN THE N.O.V.

DRUM #1 WAS NOT MENTIONED IN THE N.O.V.; PLANT OPERATORS FOUND AN UNLABELED DRUM IN THE OPERATING AREA AND HAD ITS CONTENTS ANALYZED ALSO.

WEEKLY RCRA INSPECTION

WEEK ENDING: 5/25
 DATE: 5/19-5/23

INSPECTED BY: JESSE WEUS/PM/TR

SATELLITE STORAGE AREAS	Container Closed	No Leaks	No Deterioration	Correctly Labeled	Action
Arsenic Acid Rotary Vacuum Filter Room	✓	✓	✓	✓	
Copper Nitrate Production Area	✓	✓	✓	✓	
CCA Production Area - Lower Level	✓	✓	✓	✓	
CCA Production Area - Mezzanine	✓	✓	✓	✓	
Wood Products Loading Scale Area	✓	✓	✓	✓	
Pilot Plant Area (not presently in use)	✓	✓	✓	✓	
All 6 QC Labs, except Environmental Lab	✓	✓	✓	✓	
R & D Lab	✓	✓	✓	✓	
R & D Treatment Area - single cont. in Building	✓	✓	✓	✓	
R & D Treatment Area - flammable liquid drum	✓	✓	✓	✓	
R & D Treatment Area - Off-spec CCA drum	✓	✓	✓	✓	
Maintenance Shop - CCA Rubbish & Debris	✓	✓	✓	✓	
Maintenance Shop - Waste Paint and Thinner	✓	✓	✓	✓	
Maintenance Shop - Paint Rubbish and Debris	✓	✓	✓	✓	
Old 198 Control Room	✓	✓	✓	✓	
New 198 Control Room	✓	✓	✓	✓	
198 Breakroom (outside in Refinery)	✓	✓	✓	✓	
Bulk Bag Facility Bag Unloading Room	✓	✓	✓	✓	
Bulk Bag Facility Conveying Line Clean-Out	✗	✓	✓	✓	RZNG BOLTED ON DURING INSPECTION
198 Dirty Side of Showers	✓	✓	✓	✓	
198 QC Lab	✓	✓	✓	✓	
Miscellaneous Dumpsters (list) - 224, 8002	✓	✓	✓	✓	
198 AA Recovery Sludge Roll-off	✓	✓	✓	✓	

LAGOON AREA ITEMS - TO BE DONE AT LEAST EVERY 60 DAYS	Date Work Last Done
Last date Lined Lagoon emptied?	8/96
Last date # 1 Fiberglass emptied?	11/96
Last date # 2 Fiberglass emptied?	11/96 2/12/97
Last date # 1 Fiberglass liquid and solids sampled for pH and total As, Cr analysis?	3/14/97
Last date # 2 Fiberglass liquid and solids sampled for pH and total As, Cr analysis?	3/14/97

GROUND WATER MONITORING SYSTEM	No Evident Illegal Entry	Lock/Cover Intact	General Condition	Action
MW-1	✓	✓	good	
MW-2	✓	✓	"	
MW-3	✓	✓	"	
MW-4	✓	✓	"	
MW-5	✓	✓	"	
MW-6	✓	✓	"	

FENCE INSPECTION	OK / NOT OK	NOTES
Gates closed / locked	OK	
No damage	OK	
No evidence of unauthorized entry	OK	
General Integrity	OK	
Warning signs every 100 feet	OK	

WEEKLY RCRA INSPECTION

ITEM	OK	ACTION
1. SPILL CLEAN-UP EQUIPMENT		
HAND TOOLS AVAILABLE?	✓	
NEUTRALIZATION CHEMICALS?	✓	
ABSORBENTS AVAILABLE?	✓	
HEAVY EQUIPMENT AVAILABLE?	✓	
LAST DATE SPILL KITS CHECKED? (MONTHLY)	2/97	
2. HAZARDOUS WASTE STORAGE AREA		
HAZARDOUS WASTE LIMITED ACCESS SIGNS OK?	✓	
AREA ROPED OFF?	✓	
NO LEAKING CONTAINERS?	✓	
NO DETECTED SPILLS?	✓	
NO WASTE OVER 90-DAYS OLD?	✓	
CONTAINERS CORRECTLY LABELED?	✓	
CONTAINERS CLOSED?	✓	
3. SETTLING POND # 5		
GENERAL DIKE INTEGRITY OK?	✓	
NO CRACKS?	✓	
NO POTHOLES IN ROAD?	✓	
NO LEAKS IN PIPING OR AT PUMP?	✓	
NO STANDING WATER AT LAGOON PERIMETER?	✓	
NO UNAUTHORIZED FOOD CHAIN CROP GROWTH?	✓	
VEGETATION IN CONTROL?	✓	
MOWING REQUIRED?	✓	
4. LINED LAGOON		
NO LINER DAMAGE?	✓	
GENERAL LAGOON INTEGRITY OK?	✓	
NO POTHOLES IN ROAD OR LAGOON BERM?	✓	
NO LEAKS?	✓	
NO STANDING WATER AT LAGOON PERIMETER?	✓	
NO UNAUTHORIZED FOOD CHAIN CROP GROWTH?	✓	
VEGETATION IN CONTROL?	✓	
MOWING REQUIRED?	✓	
5. CLOSED LAGOON CAPS		
NO EROSION?	✓	
NO SETTLING?	✓	
NO POTHOLES ON CAPS?	✓	
NO STANDING WATER ON CAPS?	✓	
NO LEAKS?	✓	
NO UNAUTHORIZED FOOD CHAIN CROP GROWTH?	✓	
VEGETATION IN CONTROL?	✓	
MOWING REQUIRED?	✓	

K&M Division PP45
Torrance, CA 90503



RCRIS

EPA ID #: NCD048467427

FACILITY NAME: Chemical Specialties Inc.

CITY: Harrisburg, NC

EVALUATION DATA:

NEW: X CHANGE: DELETE:

PERSON: 025

BRANCH: 01

AGENCY: STATE

REASON:

SUPERVISOR NOV TRACKING INFO

TYPE: CEI

INITIAL INSPECTION DATE: May 19, 1997

DOCKET: 97-225

REINSP DATE:

COMMENTS: Ticket NOV Issued

GENERATORS:

GBF: GER: X GGR: X GLB: X GMR: X GOR: GPT: X GRR: GSC: GSQ:

TRANSPORTERS:

TGR: TMR: TOR: TRR: TWD:

TSD's

DBF: DCH: DCL: DCP: DFR: X DGS: X DGW: X DIN: DLB: DLF: X

DLT: DMC: DMR: DOR: DOT: DPB: X DPP: X DSI: DTR: DTT: DWP:

USED OIL:

TUO: TFO: BUO: MUO: PUO: RUO:

VIOLATION DATA: New: X Change: Delete:

1. Agency: State Type: GGR Date Determined: May 19, 1997

Class: Priority: Seq#

Returned to Compliance: June 21, 1997

Actual Date:

Req. Description: 40 CFR 262.11

Comment:

2. Agency: State Type: GPT Date Determined: May 19, 1997

Class: Priority: Seq.#

Returned to Compliance: June 21, 1997

Actual Date:

Reg. Description: 40 CFR 262.34(a)(1) ref 265.173(a)

Comment:

3. Agency: State Type: GPT Date Determined: May 19, 1997
Class: Priority: Seq#
Returned to Compliance: June 21, 1997
Actual Date:
Req. Description: 40 CFR 262.34(a)(1)(i) ref. 265.174
Comment:
4. Agency: State Type: Date Determined:
Class: 2 Priority: Seq#
Returned to Compliance:
Actual Date:
Req. Description:
Comment:
5. Agency: State Type: Date Determined:
Class: 2 Priority: Seq#
Returned to Compliance:
Actual Date:
Req. Description:
Comment:
6. Agency: State Type: Date Determined:
Class: Priority: Seq#
Returned to Compliance:
Actual Date:
Req. Description:
Comment:
7. Agency: State Type: Date Determined:
Class: Priority: Seq#
Returned to Compliance:
Actual Date:
Req. Description:
Comment:
8. Agency: State Type: Date Determined:
Class: Priority: Seq#
Returned to Compliance:
Actual Date:
Req. Description:
Comment:
9. Agency: State Type: Date Determined:
Class: Priority: Seq#
Returned to Compliance:
Actual Date:
Req. Description:
Comment:



WASTE MANAGEMENT DIVISION
HAZARDOUS WASTE SECTION

NOTICE OF VIOLATION

To: Mr. Syl Bartos
Address: Chemical Specialties, Inc.
PO Box 610
Harrisburg, N.C. 28705

Docket # 97-225
Inspection Date: May 19, 1997
Facility Type: Generator/TSDF

EPA ID#: NCD 048467427

On December 18, 1980, the State of North Carolina, Hazardous Waste Section (State) was authorized to operate the State RCRA hazardous waste program under the Solid Waste Management Act (Act), N.C.G.S. 130A, Article 9 and rules promulgated thereto at 15A NCAC 13A (Rules) in lieu of the federal RCRA program.

On May 19, 1997, Mr. Jesse W. Wells representing the N.C. Hazardous Waste Section, inspected your facility for compliance with North Carolina Hazardous Waste Management Rules. During that inspection the following violations were noted:

Citation

Specifics

1. 40 CFR 262.11 - The facility could not identify the contents of three 55 gallon containers and one 5 gallon pail at the time of the inspection. Two of the 55 gallon containers and the 5 gallon pail were in storage in the area where empty drums are held prior to processing. The other 55 gallon container was located outside the arsenic storage building. The facility must determine the contents of the containers and manage them properly.

2. 40 CFR 262.34(a)(1) reference 265.173(a)- A container holding hazardous waste must always be closed during storage, except when it is necessary to add or remove waste. The band on an open head container was not properly secured. The container held P012 waste which is in a solid form. The waste in the container would release from the container should it be turned over or improperly handled. The facility must ensure that containers holding hazardous waste are closed such that waste will not be expelled from the containers, except to add or remove waste.

3. 40 CFR 262.34(a)(1)(i) reference 265.174- The facility failed to conduct weekly inspections on three roll-off boxes holding arsenic trioxide spill residue (P012). The containers were dated 4/22/97. The facility must begin weekly inspections of the roll-off boxes and document the inspection in accordance with 15A NCAC 13A .0110 (i).

You are hereby required to comply with the noted violation(s) by June 21, 1997, at which time a reinspection will be performed. If compliance with the violation(s) noted above are not met, pursuant to N.C.G.S. 130A-22(a) and 15A NCAC 13B.0701-.0707, an administrative penalty of up to \$25,000.00 per day may be assessed for violation of the hazardous waste law or regulations.

5/21/97
(Date)

J. W. Wells
NC. Hazardous Waste Section

I, Jesse W. Wells, hereby certify that I have personally served a copy of this Notice on Mr. Syl Bartos at Chemical Specialties, Inc.

SENT CERTIFIED MAIL
(Recipient Signature)

copies to: field files
 central files

RCRA INSPECTION REPORT

General Information

Facility Name: Chemical Specialties Inc. (CSI)

Location: 5910 Pharr Mill Road

Mailing Address: Post Office Box 610, Harrisburg, NC 28705

EPA LD.#: NCD048467427

Phone #: 704/377-6555

Contact/Title: Mr. Syl Bartos/Compliance Manager

Inspection Date: May 19, 1997

Last Inspection: May 23, 1996

Status: LQG/Permitted Disposal Facility

Type of Inspection: CEI

Waste Management Specialist(s): Jesse W. Wells (025)

Present at Inspection: Syl Bartos, Paul Miano

Type of Business: CSI is a manufacturer of inorganic chemicals predominantly used in the wood preserving industry. The facility closed four surface impoundments. Waste removed from the impoundments was removed and stabilized with portland cement & fly ash. The stabilized waste was then land disposed in an on-site landfill designated #3. The landfill covers 1.074 acres and 345,856 cubic feet of stabilized hazardous waste was disposed of in the fill area. The facility presently maintains one impoundment holding treated wastewater which is discharged to the Rocky River under a NPDES permit. The plant wastewater is treated with lime to raise the pH and to stabilize metals. Wastewater discharged to the river must be maintain ≤ 9.0 pH. The facility maintains another impoundment for spill release purposes.

Waste Generated: D004-D007-D009 arsenic solids (Rubbish/Debris), P012-D004-D009 arsenic trioxide wastes, P010 arsenic acid waste, F003 paint related wastes

Manifest

Approved Transporters ? Yes

Approved TSDF's? Yes

Signed Copies? Yes

Filled Out Correctly? Yes

LDR Notification Attached? Yes

Waste Minimization:

Written Program: Yes

How: The facility conducts yearly tracking of wastes generated. Facility continues to explore methods to reduce/reuse process chemicals.

Hazardous Waste Inspection Records

Inspection on Storage Area: Yes

Inspection on H.W. Tank(s): N/A

Inspection on Ancillary Equipment:

Other: The facility has specific inspection requirements associated with the Part B permit.

Inspection were determined to be in compliance with the permit requirements

Contingency Plan

On Site: Yes

Page Two

Facility Name: Chemical Specialties, Inc

EPA ID. #: NCD048467427

Inspection Date: May 19, 1997

Any Changes to Facility/Processes or Emergency Coordinators Since Last Review: No

Syl Bartos(P) & Heath Howie (A)

Contingency Plan Used: Yes

(If Yes, Was It Adequate): Yes- Arsenic

trioxide release on March 22, 1997. Incident recorded in facility's operating record.

Agreements with Emergency Responders: Yes

Employee Interview

Name(s): Mr. Larry Love, Chief CCA Operator

Trained: Yes

Annual Report Submitted: Yes

Copy at Facility: Yes

Emergency Preparedness

Facility Maintained and Operated to Prevent Releases: Yes

Internal Communications or Alarm Present: Yes

Device in Area of Operation to Summon Outside Help: Yes

Portable Fire Extinguishers and/or Fire Control Equipment: Yes

Spill Control Equipment: Yes

Adequate Water Volume, Foam, Equipment, or Auto Sprinkler: Yes

All Equipment/Alarms Tested and Maintained: Yes

All Personnel Handling H.W. have Access to Alarm Device: Yes

Aisle Space in Area of Facility Operations: Yes

Satellite Accumulation Area(s) Number: 15

Location(s):

Containers:

Closed? Yes Labeled? Yes <55 gallons? Yes Stored <3 days if full? N/A

Storage Area(s) Number: Seven at the time of the inspection. Three roll offs containing spill residue from the cleanup of the arsenic trioxide incident were on site. The facility had failed to include the roll-off containers as part of their inspection.

Description: The facility maintains an enclosed <90 day storage area. Persons managing/handling waste in the area are supplied with two-way radios. An additional roll-off in the arsenic acid area, bulk bag collection equipment, one 55 gallon drum holding arsenic trioxide wastes (P012/D009) at sifter installation area.

Containers: Closed? No Aisle Space? Yes Labeled? Yes Releases? No

Dated? Yes

<90 Days? Yes Good Condition? Yes

Other H.W.Units (Applicable Regulations)

Description of Unit: Closed hazardous waste landfill of 1.074 acres. No areas of erosion were

Page Three

Facility Name: Chemical Specialties, Inc
Inspection Date: May 19, 1997

EPA I.D. #: NCD048467427

noted on the landfill cap. The facility maintains six groundwater monitor well to monitor the closed units. The facility is subject to Part B permitting requirements as a disposal facility and is subject to corrective action.

External Facility Condition: Good Condition.

Site Deficiencies:

1.) 40 CFR 262.11- The facility could not identify the contents of three 55 gallon containers and one 5 gallon pail. Two of the 55 gallon containers and the five gallon pail were in storage in the area where empty drums are held prior to processing. The other 55 gallon container was located outside the arsenic storage building.

2.) 40 CFR 262.34(a)(1) reference 265.173(a)- A container holding hazardous waste must always be closed during storage, except when it is necessary to add or remove waste. The band on an open head container was not properly secure. The container held P012 waste which is in a solid form. The waste would likely release from the container should it be accidentally turned over or improperly handled.

3.) 40 CFR 262.34(a)(1)(i) reference 265.174- The facility failed to conduct weekly inspections on three roll-off boxes holding arsenic trioxide spill residue (P012). The containers were dated 4/22/97.

TICKET NOV DOCKET #97-225 Issued for Deficiencies Noted

Recommendations:

1. Ensure that openings on containers are closed such as to prevent the collection of rainwater in the drums.
2. Containers/drums which have been cleaned should be stored such that the collection of rainwater is prevented from accumulating in the drum.

J. H. Wells 5/21/97
RCRA Inspector (Date)

Sent Certified Mail
Facility Contact (Date)

Follow Up Inspection:

RCRA Inspector (Date)

Facility Contact (Date)

GROUND WATER INSPECTION FORM - PART 265

Name of Site: Chemical Specialties, Inc.

EPA I.D.: NCD048467427

County: Cabarrus

Inspection Date: May 19, 1997

Signature of Inspector(s):

J. H. Wells

Signature of Facility Contact: _____

In each blank place a "C" for in compliance, or an "X" for not in compliance, or a "N/A" if not required. All blanks should be completed.

SUBPART F - GROUND WATER MONITORING

1. Install, operate, and maintain ground water monitoring system in compliance with 265.90(b) reference 265.91 or 265.90(d)

C minimum of 4 wells installed; one of the wells must be installed upgradient and the other wells must be located downgradient of the waste management area; the downgradient wells must be as close as technically feasible to the limits of the waste management area.

2. Ground Water Sampling and Analysis Plan

C developed and maintained in accordance with 265.92(a)

3. Ground Water Assessment Plan [(265.93(d)(2)]

C developed and submitted to the State Program Administrator, if required.

4. Quarterly Ground Water Sampling [265.93(d)(7)]

C quarterly ground water samples collected and analyzed as specified.

5. Record Keeping and Reporting [265.94(b)]

C maintain records of ground water sample analyses at the facility.

N/A submit annual report containing the results of the Groundwater Assessment Program by March 1, 19__.

264 Permitted Facility

**Division of Waste Management
Hazardous Waste Section**

**Chemical Specialties, Inc
NCD 048467427
Cabarrus County, N.C.**

Date: May 19, 1997

**TSDF INSPECTION FORM - PART 264
SUPPLEMENTAL CHECKLIST FOR FACILITY - SPECIFIC CONDITIONS**

1. Post -closure documents to be maintained at facility site (Permit Conditions I.F.).

- C** Corrective action system operation and maintenance plans.
- C** Cost estimate for corrective action system.
- C** Post-closure plan(s).
- C** Cost estimate for post-closure care.
- C** Inspection schedules developed in accordance with 264.15(b).
- C** Operating record required by 264.73 and Permit Condition III. E.
- C** Corrective Action Plans and reports required by 264.101.
- C** Groundwater monitor records used to develop reports required by the permit.
- C** A survey plat and record of the type, location and quantity of hazardous waste or hazardous constituents disposed of within each cell or area of the facility (to include solid waste management units) as required by 264.119.
- C** All reports and documentation of compliance with 264.118(a), (b)(1) and (2) during the post-closure period.

State of North Carolina
Department of Environment,
Health and Natural Resources
Division of Waste Management

James B. Hunt, Jr., Governor
Jonathan B. Howes, Secretary
William L. Meyer, Director



April 29, 1997

Paul Miano
Environmental Manager
Chemical Specialities, Inc.
Post Office Box 610
Harrisburg, North Carolina 28075

RE: Arsenic Trioxide Sifter Collection Drum

Dear Mr. Miano:

This is in response to your letter dated March 27, 1997, regarding the regulatory status of the arsenic trioxide sifter collection drum. The sifter will be used to separate debris and hard lumps from the material which passes through its screen. The entire machine will be under vacuum from the conveying system thru to the storage silos. The material which is "caught" will be collected in a 55-gallon drum with two liners placed below the sifter debris outlet to prevent releases. When the drum fills, the operator will disconnect the liners from the sifter and determine: ① if the material is a waste in which case the drum will be immediately labeled, managed as a hazardous waste and taken to the 90-day storage area, or ② if the material needs to be reprocessed in which case the operator will vacuum the good material from the drum into the conveying system.

We agree that the collection drum described above is not a satellite hazardous waste container. As you indicated in your letter the operator makes the determination on whether the material is a waste, or if it still has value and needs to be re-processed. If it is a waste, the operator is managing the material as a hazardous waste and immediately taking it to the 90-day generator accumulation location. Any releases are however subject to an immediate waste determination and must be managed appropriately. The Compliance Branch will take a look at the process in operation.

P.O. Box 27687,
Raleigh, North Carolina 27611-7687
Voice 919-733-4996



FAX 919-715-3605
An Equal Opportunity Affirmative Action Employer
50% recycled/10% post-consumer paper

Paul Miano
April 29, 1997
Page 2

If you have any questions, please feel free to contact Jesse Wells or Linda Culpepper at (704) 663-1699 and (919) 733-2178 ext. 216 respectively.

Sincerely,

Daniel S. Bius for

James A. Carter, Chief
Hazardous Waste Section

cc: **Jesse Wells**
Keith Masters
Doug Holyfield
Central Files

rc: Dan Bius
Linda Culpepper

April 25, 1997

Paul Miano
Environmental Manager
Chemical Specialities, Inc.
Post Office Box 610
Harrisburg, North Carolina 28075

RE: Arsenic Trioxide Sifter Collection Drum

Dear Mr. Miano:

This is in response to your letter dated March 27, 1997, regarding the regulatory status of the arsenic trioxide sifter collection drum. The sifter will be used to separate debris and hard lumps from the material which passes through its screen. The entire machine will be under vacuum from the conveying system thru to the storage silos. The material which is "caught" will be collected in a 55-gallon drum with two liners placed below the sifter debris outlet to prevent releases. When the drum fills, the operator will disconnect the liners from the sifter and determine: ① if the material is a waste in which case the drum will be immediately labeled, managed as a hazardous waste and taken to the 90-day storage area, or ② if the material needs to be reprocessed in which case the operator will vacuum the good material from the drum into the conveying system.

We agree that the collection drum described above is not a satellite hazardous waste container. As you indicated in your letter the operator makes the determination on whether the material is a waste, or if it still has value and needs to be re-processed. If it is a waste, the operator is managing the material as a hazardous waste and immediately taking it to the 90-day generator accumulation location. Any releases are however subject to an immediate waste determination and must be managed appropriately. The Compliance Branch will take a look at the process in operation.

If you have any questions, please feel free to contact Jesse Wells or Linda Culpepper at (704) 663-1699 and (919) 733-2178 ext. 216 respectively.

Sincerely,

James A. Carter, Chief
Hazardous Waste Section

cc: Jesse Wells
Keith Masters
Doug Holyfield
Central Files

rc: Dan Bius
Linda Culpepper



3/27/97

Mr. Jesse Wells, Waste Management Specialist
Mooresville Regional Office
Hazardous Waste Section, DEHNR
919 North Main Street
Mooresville, North Carolina 28115

Re: Information on Arsenic Trioxide Sifter
Request for Decision on Sifter Collection Drum

Dear Mr. Wells:

I have enclosed a process flow diagram and a drawing of the arsenic trioxide sifter we discussed in our phone conversation on 3/26/97. The sifter will be used to separate debris and hard lumps of arsenic trioxide from the material which passes through its screen. The entire machine will be under vacuum from the conveying system to prevent any arsenic trioxide from entering the work area. The arsenic trioxide which passes through the sifter is conveyed under vacuum to the storage silos. The material which is "caught" by the screen will be collected in a drum.

We are proposing that a 55-gallon drum with two liners be placed below the sifter debris outlet. The two liners will be clamped or otherwise attached to the debris outlet so that no arsenic trioxide will escape into the air. When the drum fills with material the Operator will have to disconnect the liners from the sifter and determine if the material inside the drum is waste. If it is waste, he will label the drum immediately and transport it to the 90-day Hazardous Waste Storage Area. If the screen has blinded (most likely with damp powder) there will be arsenic trioxide which is not waste in the drum, and the Operator will be expected to vacuum the good material from the drum into the conveying system. Because the material inside the drum is not waste until the Operator inspects its contents and makes that determination, we would like to consider the drum as part of the process and not as a satellite accumulation area.

This letter is to ask:

1. Do you agree with our interpretation that the drum is not a satellite container?
2. If the drum is a satellite accumulation area in your opinion, would the liners attached to the sifter outlet qualify as a "closed lid" while the sifter is in operation?

If you have any questions concerning this matter, please do not hesitate to contact either Syl Bartos (CSI Compliance Manager) or myself. Thank you for your time in this matter.

Sincerely,

A handwritten signature in black ink that reads "Paul Miano".

Paul Miano
Environmental Manager
Chemical Specialties, Inc.
(704) 455 - 4145

Enc.

INSTRUCTION MANUAL

KASON FLO-THRU SIFTER

Manufactured by:

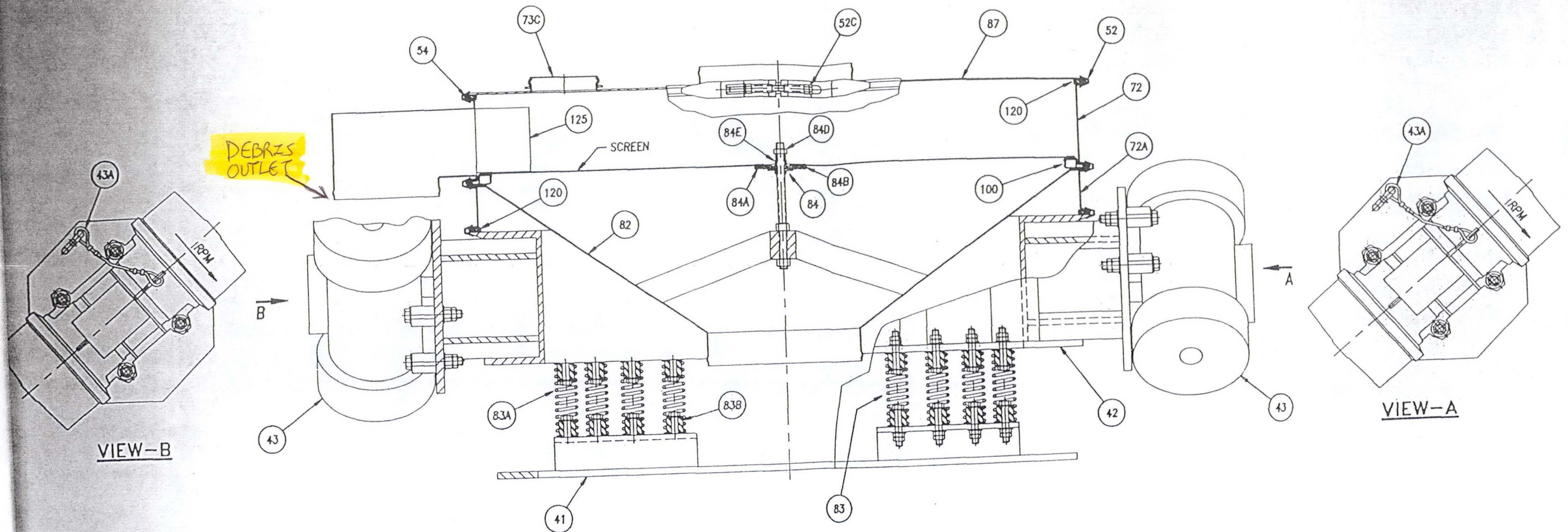
K A S O N C O R P O R A T I O N

This manual has been prepared to help you understand the operation of the KASON FLO-THRU SIFTER and so obtain maximum efficiency with a minimum of maintenance.

Should you require additional information or assistance, please contact our nearest Kason Representative or contact us directly at:

KASON CORPORATION
1301 E. Linden Avenue
Linden, NJ 07036

TEL : (908) 486-8140
FAX : (908) 486-8598

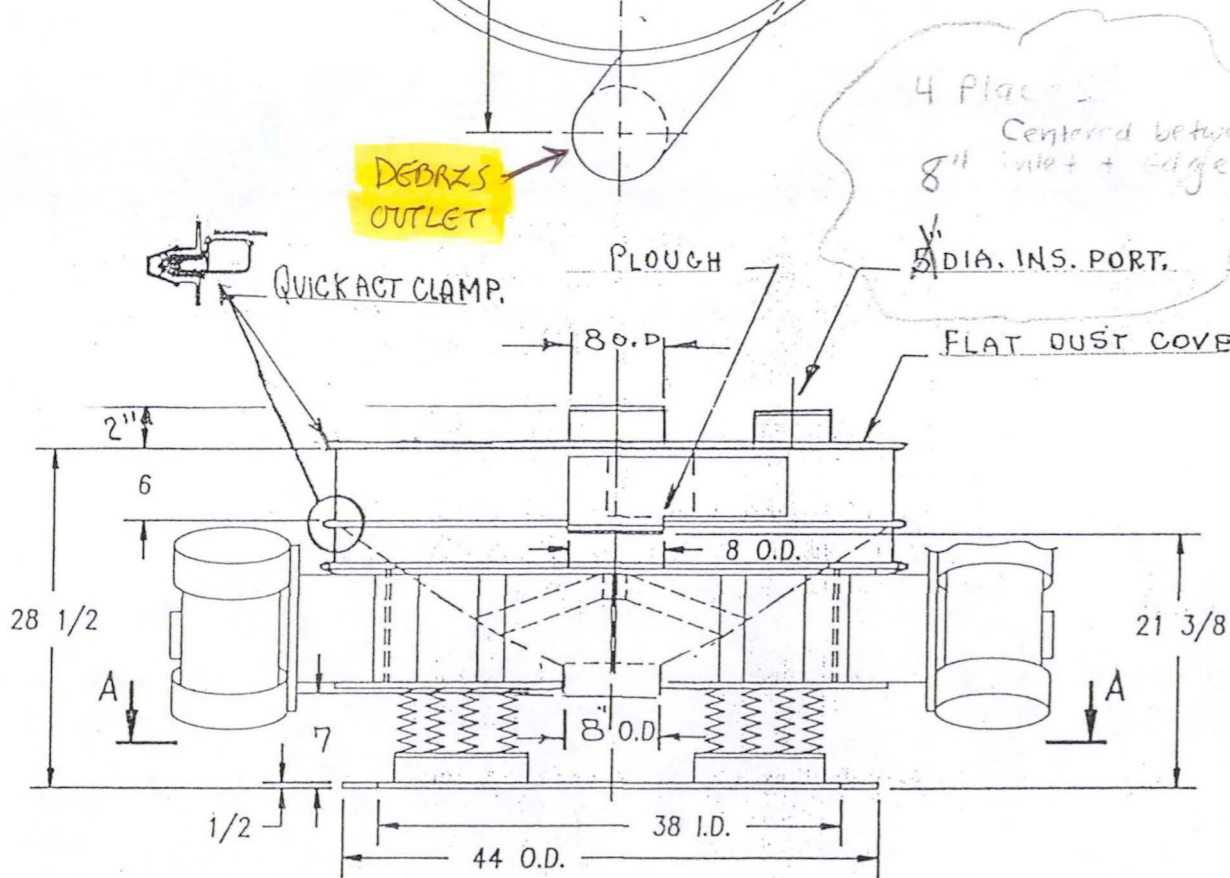
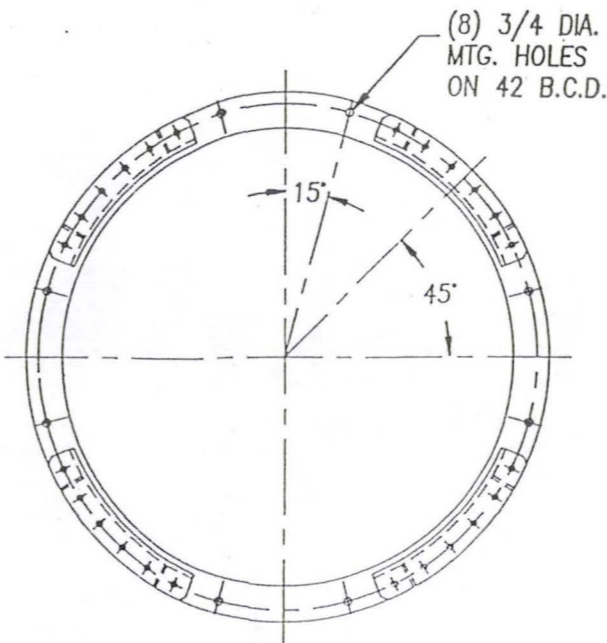
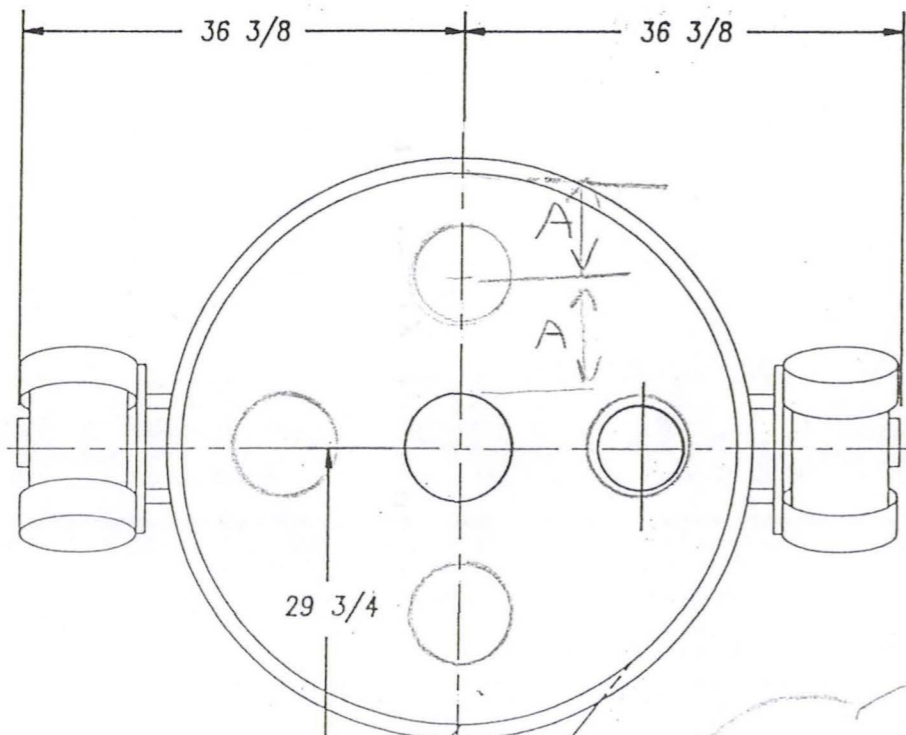


DESCRIPTION	REMARKS	ITEM NO.	DESCRIPTION	REMARKS
SPRING MOUNT				
SUPPORT SPRING				
SUPPORT SPRING ASSEMBLY				
DISCHARGE CHUTE				
INSPECTION PORT COVER				
SUPPORT FRAME		125	PLOUGH BLADE	
SPACING FRAME		120	FILLER RING	
'A' SECTION GASKET		100	SCREEN TENSION RING	
CLAMP RING BOLT		87	DUST COVER	OPTIONAL
CLAMP RING ASSEMBLY		84-E	REVERSE TIE-DOWN	
SAFETY ROPE ASSEMBLY		84-D	JAM NUTS	
VIBRATOR		84-B	CENTER PLATE GASKET	
MOTOR SUPPORT TABLE		84-A	CENTER PLATE	
BASE		84	SCREEN TENSIONING ASSEMBLY	

KASON CORPORATION
 LINDEN, NEW JERSEY

48" KASON FLO-THRU
 TYPICAL PARTS AND ASSEMBLY DRAWING

UNIT	48" FLO-THRU	DRAWN	RAJ	DATE	03-08-93	APPROVED	SCALE	1/8" OR AS NOTED
DRAWING NUMBER	010B118	REVISION	R0	CODE	0010118A			



FOR CHEMICAL SPECIALTIES
HARRISBURG, NC.

CUSTOMER REF NO.: P.O. # A1258

OUR REF. NO.: K-46610 MODEL NO.: K48-1FT-SS

SCREEN DECK NO. 1 FRAME NO. 2 NET WEIGHT 900 LB

SCREEN: 3MG (SS)

MOTOR: (2) "MARTIN" CD12-1980, 11/16 HP.; 230/460V.; 3PH.; 60HZ.; 1200RPM. TENV.

NOTE: (3) - 8" DIA. x 12" LG FLEX. CONN'R'S (WHITE NEO) EACH WITH (2) (SS) CLAMPS ARE INCLUDED.

PRELIMINARY	FOR APPROVAL	FINAL
BY	DATE	BY DATE
		BY A.S DATE 7.2.96

KASON CORPORATION
LINDEN, NEW JERSEY

48" KASON FLO-THRU
INSTALLATION DRAWING

DRAWN RAJ DATE 01-16-93 APPROVED SCALE NONE

DRAWING NO. 010B115 REVISION R1 KC JOB NO. K-46610

DIMENSIONS: INCH (EXCEPT AS NOTED)

State of North Carolina
Department of Environment,
Health and Natural Resources
Division of Solid Waste Management



James B. Hunt, Jr., Governor
Jonathan B. Howes, Secretary
William L. Meyer, Director

March 6, 1997

Mr. Sylvester J. Bartos
Compliance Manager
Chemical Specialties, Inc.
P.O. Box 610
Harrisburg, NC 28075



Re: RCRA Permit Modification Request
Chemical Specialties, Inc.
Facility ID # NCD 048 467 427

Dear Mr. Bartos:

Your request for a permit modification to update the contingency plan has been processed as a class one (1) permit modification under 40 CFR 270.42 as referenced in 15A NCAC 13A .0113. To comply with 40 CFR 270.42 you must notify all persons on the enclosed mailing list with the exception of the State and EPA who have already been modified.

This permit modification does not cause a change in the actual permit document. The attached application pages should replace the corresponding pages in the application.

Approval of this modification is therefore granted and has been incorporated into your permit. If you have any questions, please contact Beth Hartzell at (919) 733-2178 ext. 226.

Sincerely,

James A. Carter, Chief
Hazardous Waste Section

Enclosure

cc: Narindar Kumar, US EPA, Region IV
A. Preston Howard, Jr., DWQ
Frank W. Clifton, Jr., Cabarrus County Manager
Jesse Wells

rc: Jill E. Burton
Elizabeth A. Hartzell
Christine A. Ritter
Kathleen Z. Lawson
Sharron E. Rogers

JAC\EAH\tb3.wp7

Contingency Plan Updates / Revisions

Revision Date	1/97
Section	Revisions
2.4	Replaced Kirk Adams with John Grier as a 198 Chief Operator (Replace page 3 for this update)
2.5	Removed Derek Stevenson from list of Key Personnel Phone Numbers (Replace page 5 for this update)
Appendix - 1A	Modified drawing to show the new location of the Hazardous Waste 90-day Storage Area; modified drawing to reflect changes made to Appendix - 1B. (Replace drawing for this update)
Appendix - 1B	Removed Manual Arsenic Trioxide Unloading Area from the list of Satellite Areas and modified the listings to keep the alphabetical sequence correct. (Remove two pages and replace with included page for this update)
Appendix 6	Modified Evacuation Plan drawing to show the new location of the Hazardous Waste 90-day Storage Area. (Replace drawing for this update)

Contingency Plan Updates / Revisions

Revision Date **1/21/97**

Section **Revisions**

Appendix - 1A Modified the drawing to show the new Bulk Bag Facility Clean-Out Area Satellite Accumulation Container to be located in Building 37.
(Replace drawing for this update)

Appendix - 1B Added the Bulk Bag Facility Clean-Out Area container to the list of Satellite Accumulation Areas.
(Replace Appendix -1B for this update)

2.4 Site Early Response Teams

Fires

Site- Doug Barnette/John Troutman w/ maint. dept.

Minor Spills/Releases with Area employees

198 & CCA - Chief Operators - Larry Morrow - 198 Area
Larry Love - CCA Area
Industrial Area - John Cade
Peroxide Area - Joe Creech
Warehouses - Marty Poplin
Maint./Utilities - Doug Barnette

Offshift Response

198 Chief Operators - Derek Stevenson
Wilson Patterson
Mike Neal
John Grier

Major Spills Response - HAZWOPER Team

Syl Bartos
Heath Howie
John Troutman
Emanuel Caldwell
John Williams
Ken Mason
Wayne Benfield
David Adcock
Kirk Adams

Name	Home Phone #	Pager #	Nationwide ID #	Car #
Doug Barnette	633-7182			
Jim Driggers	366-5818			
John Cade	784-9130	514-7531		
John Troutman	436-2123			577-0493
Tim Renckens	948-3999			
Marty Poplin	849-2320			

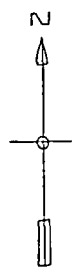
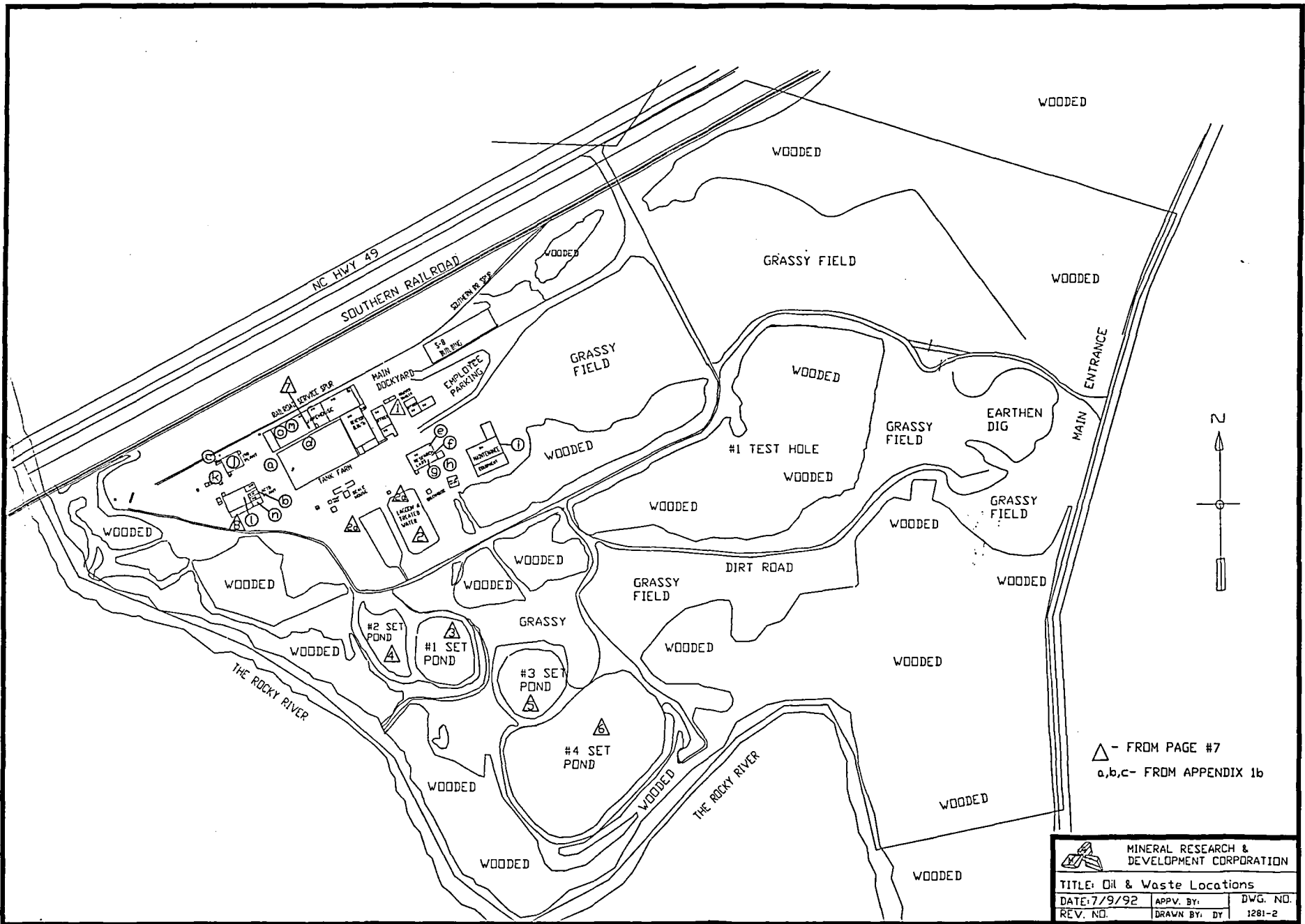
HAZWOPER Team -

Emanuel Caldwell	786-6847			
John Williams	788-4789			
Ken Mason	985-1014			
Wayne Benfield	784-2048			
David Adcock	932-8331			
Kirk Adams	938-7405			


ACCUMULATION
and
SATELLITE ACCUMULATION AREAS

The building locations can be found on drawings at the Site; the letter references can be located on the drawing in Appendix 1A of this Contingency Plan

- | | |
|---|-----------------------------|
| a. Under Loading Mezzanine in Driveway # 3 | Drive # 3 |
| b. Arsenic Acid Rotary Vacuum Filter Room
(Includes filter and collection container) | Bldg. 23 |
| c. Copper Nitrate Production Area | Near R-501 |
| d. Two in the CCA Production Area | |
| 1 - Lower Level | Near R-91 & R-92 |
| 2 - Mezzanine Level | Near R-91 & R-92 |
| e. All 6 QC Laboratories, except the Environmental Lab | Bldg. 5 |
| f. R & D Laboratory | Bldg. 5 Basement |
| g. R & D Treatment Cylinder Area | Bldg. 5 Basement |
| h. Outside Bldg. 5 Extension
(Two 55-gallon containers) | Bldg. 5 Basement |
| i. Maintenance Shop | Bldg. 4 |
| 1-CCA Contaminated Rubbish/Debris in Shop Area) | |
| 2-Spent Paint Thinner in Truck Bay | |
| 3-Paint Rags in Truck Bay | |
| j. Old 198 Control Room (Blue Room) | Bldg. 31 |
| New 198 Control Room | Bldg. 34 |
| k. 198 QC Lab | Downstairs from
Bldg. 31 |
| l. 198 Breakroom | Outside Bldg. 22 |
| m. Bulk Bag Facility (includes machine and collection drums) | Bldg. 36 |
| n. Dirty Side of Showers | Bldg. 216 |
| o. Bulk Bag Facility Clean-Out Area | Bldg. 37 |



△ - FROM PAGE #7
 a,b,c- FROM APPENDIX 1b

 MINERAL RESEARCH & DEVELOPMENT CORPORATION		
TITLE: Oil & Waste Locations		
DATE: 7/9/92	APPV. BY:	DWG. NO.
REV. NO.	DRAWN BY: DY	1281-2



3/25/97

Mr. Jesse Wells, Waste Management Specialist
Mooresville Regional Office
Hazardous Waste Section, DEHNR
919 North Main Street
Mooresville, North Carolina 28115

Dear Mr. Wells:

This letter is to respond to two questions you raised concerning the arsenic trioxide spill which occurred on 3/22/97:

1. Can CSI verify the integrity of the fiberglass tank and the lined lagoon the spilled material was directed into?

CSI can verify that the fiberglass tank is in good condition because we had contracted for a Professional Engineer from our environmental consulting firm (Delta Environmental Consultants, Inc.) to inspect it on 2/12/97. This engineering evaluation was performed as part of the RCRA Facility Investigation now underway on site, and a copy of the evaluation is included with this letter.

CSI cannot verify the integrity of the lined lagoon at present; the RFI did not request an evaluation for it because it had already been designated as a SWMU requiring further sampling and evaluation. Since the lined lagoon will require emptying to remediate the arsenic trioxide spill, CSI will now arrange for an engineering evaluation of its integrity by a P. E. while it is empty. A copy of that report will be mailed to you when it is received from the consultants.

2. How was it determined that none of the spilled material crossed the Plant fence line?

CSI's Area Production Manager (Bobby Baggett) made the first inspection outside the site fence line approximately two hours after the spill occurred. He was accompanied on the inspection by a Cabarrus County Sheriff's Deputy (Mr. Poole). Together, they inspected the area along both sides of Highway 49 (particularly the woods along our fence line), along Pharr Mill Road, and throughout the River Hills community. They looked at surfaces with contrasting color to the gray-white arsenic trioxide - examples would be leaves, mailboxes, debris, vehicles, etc. No evidence of contamination beyond the site boundary was found.

Due to shifting winds, a second inspection was made in the River Hills community the afternoon the spill occurred. Mr. Baggett was accompanied on this inspection by David Moon, CSI's Vice President of Operations. Neither Mr. Baggett nor Mr. Moon found any contamination outside the site boundary during this inspection.

At this point the clean-up efforts were well underway. It was determined by on-site inspections (by Mr. Baggett and others) that the spill had not passed beyond the Maintenance Shop area. This is well within the site fence line.

On Monday morning, the Environmental Assistant (Tim Renckens) was asked to make an especially thorough inspection as part of his weekly fence inspection. He was instructed to inspect contrasting color surfaces, similar to prior inspections outside the site boundaries, around the inside circumference of the fence line. Mr. Renckens reported finding no contamination along the inside perimeter of the site fence.

If you have any further questions or need more information, please do not hesitate to contact me at (704) 455 - 4138.

Thank you.

Sincerely,



Sylvester J. Bartos
CSI Compliance Manager

Enc.



6701 Carmel Road
Suite 200
Charlotte, NC 28226-3901
704/541-9890
FAX: 704/543-4035

March 12, 1997

Chemical Specialties, Inc.
5910 Pharr Mill Road
P. O. Box 610
Harrisburg, North Carolina 28075

Attention: Mr. Syl Bartos
Compliance Director

Subject: Engineering Evaluation of Fiberglass Tank -SWMU #45
Chemical Specialties, Inc.
Harrisburg, North Carolina
Delta Proposal No. E095-080-2.0020

Dear Mr. Bartos:

The intent of the engineering evaluation is to satisfy Condition 5 of the September 30, 1996 letter Chemical Specialties, Inc. (CSI) received from Sharron Rogers of the North Carolina Department of Environment, Health and Natural Resources (NCDEHNR).

Delta visually inspected the fiberglass tank during a February 12, 1997 site visit. No construction drawings or manufacturer data was available for review during the site visit. The tank was empty of contents during the evaluation; however, the tank was not entered as part of this evaluation.

Tank Configuration

The open-top, vertical, fiberglass tank has dimensions of 10 feet diameter by 9 feet 9 inches in length. The material of construction appears to be fiberglass reinforced plastic (FRP) although manufacturer data was not available for review. The material is one-half inch in thickness. The tank is buried up to the flanged rim. The tank did not contain visible cracks, chips or exhibit signs of corrosion. Reportedly, the tank has been in service for 11 years.

Two 4-inch diameter PVC pipes rest on top of the tank rim and discharge stormwater into the tank. These pipes collect stormwater from beneath the industrial product's truck scale and from a trench drain surrounding the truck scale.

Three pipe protrusions exist through the wall of the tank. One 21-inch diameter corrugated black drain pipe located approximately 21 inches from the tank top collects stormwater from the industrial product's tank pits, stormwater from the tank pit at the hydrogen peroxide plant, runoff from various portions of the drives around the plant, and blowdown from the cooling towers. This pipe appears to be bonded to the tank with fiberglass.

One 17-inch diameter fiberglass pipe stub located approximately 22 inches below the tank top discharges water from the tank into Lagoon #1. The pipe stub appears to be bonded to the tank with fiberglass and connects to a corrugated black drain pipe.

One two-inch diameter CPVC pipe is connected to a sump pump located in the tank. This pipe protrudes through the wall at a depth of 9 inches below the tank top. This line is not bonded to the fiberglass tank. Reportedly, this two-inch line has not operated since installation and is scheduled to be removed. Under normal operating conditions, the liquid level in the tank will not reach this pipe protrusion; however, the liquid level could reach the opening if the 17-inch discharge line became obstructed.

There was no evidence of leakage into the tank from around the pipe protrusions.

Chemical Compatibility

The fiberglass tank is normally expected to contain stormwater drainage from various plant areas. Based upon conversations with site personnel, the most likely chemicals (if any) to be present in the stormwater that drains into the tank are cooling tower treatment chemicals, caustic, hydrochloric acid, salt and hydrogen peroxide. These chemicals, if present, are expected to be at low concentrations in the tank. Fiberglass (FRP) is generally resistant to low concentrations of chemicals based upon data from fiberglass tank manufacturers; however, specific manufacturer data for this fiberglass tank was not available for review.

Conclusions/Recommendations

Overall, the tank appears to be in good condition. No visual evidence of damage or failure was noted during our inspection; however, Delta offers the following recommendations:

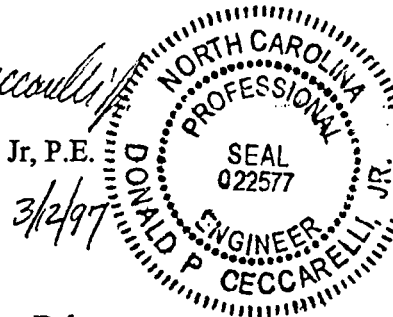
1. Since the 2-inch sump pump line is not sealed to the tank wall and the sump pump is not planned for operation, the line should be removed and the hole sealed.
2. Manufacturer data, if available, should be reviewed to ensure chemical compatibility.
3. A stormwater diversion structure should be constructed around the top of the tank to prevent solids from entering the tank due to surface runoff.

We appreciate the opportunity to prepare this engineering evaluation for CSI. Please call us at (704) 541-9890 if you have any questions.

Sincerely,

DELTA ENVIRONMENTAL CONSULTANTS, INC.

Donald P. Ceccarelli, Jr.
Donald P. Ceccarelli, Jr., P.E.
Project Manager

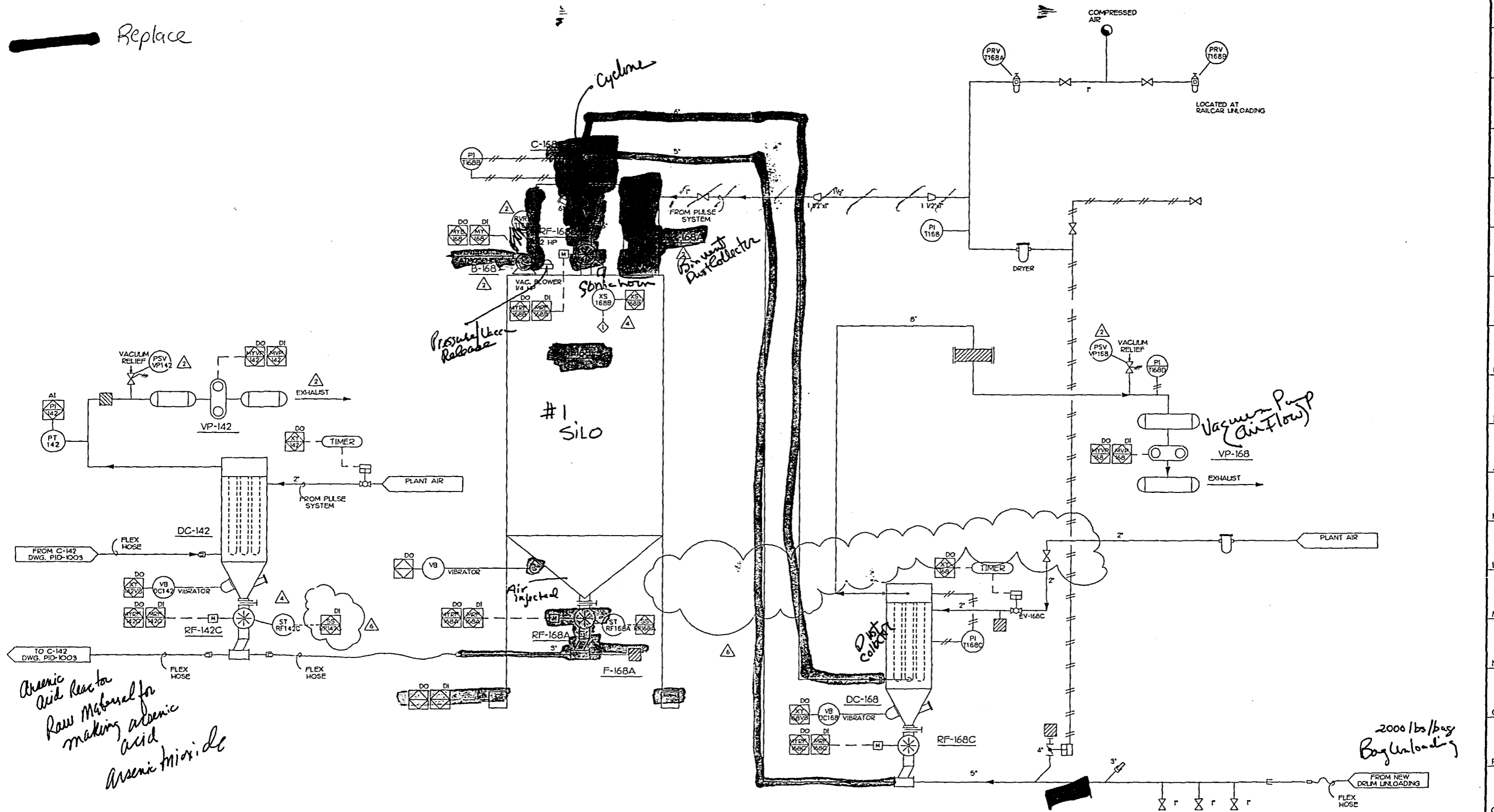


David W. Gipe
David W. Gipe, P.E.
Industrial Division Unit Manager

DPC/mcw

cc: Brent Callihan, Delta

Replace



Arsenic Acid Reactor Raw Material for making arsenic acid Arsenic trioxide

2000 lbs/bag Bag Unloading

CHEMICAL SPECIALTIES, INC. HARRISBURG, NORTH CAROLINA			
PIPING & INSTRUMENT DIAGRAM 198 PLANT STORAGE SILO T-168			
NO. 1194	REVISIONS	DATE	BY
1	AS BUILT	7/7/97	DSW
2	INSTRUMENTATION	10/1/96	DSW
3	RF168C MOTOR SWITCH	8/6/96	DSW
4	ADDED HAZOP REVISIONS	5/12/93	CWW
5	ADDED SAFETY INTERLOCK INSTS	10/5/92	FEL
6	AS BUILT	9/8/92	MGM
SCALE: NONE	DATE: 8/14/92	PROJECT NO: CSPI1002	DRAWING NUMBER: PID-1002
6	DCF	NO.	CWD

[Handwritten initials]



FAX TRANSMISSION

To: Jesse Wells From: Syl Bartos
 Company: _____ Date: _____ Page _____ of _____
 Fax No: _____ Re: _____

Per your request.

I have included *[Signature]*

- Shipping papers
- certificate of analysis.

Mineral Research and Development Corporation

One Wood Lawn Green • Charlotte, N.C. 28217 • Sales Office (704) 525-2771



PRODUCT:CALCIUM NITRATE, 66% CG

DATE: 2/28/97

PRODUCT CODE: C115

LOT NO: 31127

**CUSTOMER / ADDRESS: W.R. Grace & Co., CPD
c/o Arcadian Corp.
2830 Hwy. 421 N
Wilmington, NC 28401**

DATE OF SHIPMENT: 2/28/97

NET WEIGHT: 46,500 lbs

CERTIFICATE OF ANALYSIS

SPECIFIC GRAVITY: 1.457 @ 15 °C

pH: 7.1 @ 15 °C

APPEARANCE: clear and colorless liquid

MINERAL RESEARCH AND DEVELOPMENT

Analyst: J.R. Reid

FAX COA TO 910/343-6601

COA TO ACCOMPANY SHIPMENT

THIS SHIPPING ORDER must be legibly filled in, in Ink, in Indelible Pencil, or in Carbon, and must be signed by the Agent of the Carrier.

NAME OF CARRIER CSI/MINERAL RESEARCH TRUCK	CARRIER'S NO. CSI/MRC TR	DATE 02/28/97	SHIPPER'S NO. 032225
--	------------------------------------	-------------------------	--------------------------------

RECEIVED, subject to the classifications and tariffs in effect on the date of the issue of this Bill of Lading, the property described below in apparent good order, except as noted (contents and condition of containers of dangerous materials, marked, packaged, and certified as indicated below which said carrier (the word carrier being understood throughout this contract as meaning any person or corporation in possession of the property under this contract) agrees to carry to the stated place of delivery or said destination, in its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed, as to each carrier of all or any portion of said property over all or any portion of said route to destination, and as to each party at any time interested in all or any of the property, that every service to be performed hereunder shall be subject to all the terms and conditions of the Uniform Domestic Freight Bill of Lading set forth (1) in Uniform Freight Classifications in effect on the date hereof, if this is not a rail-water shipment, or (2) in the applicable motor carrier classification or tariff if this is a motor carrier shipment.

Shipper hereby certifies that he is familiar with all the terms and conditions of the said bill of lading, set forth in the classification or tariff which governs the transportation of this shipment, and the said terms and conditions are hereby agreed to by the shipper and accepted for himself and his assigns.

FROM: SHIPPER CHEMICAL SPECIALTIES, INC dba MINERAL RESEARCH & DEV. 5910 PHARR MILL RD HARRISBURG NC 28075 (ORIGIN)	TO: CONSIGNEE 419861 PO#: 4500003806-13 W.R. GRACE & CO., CPD C/O ARCADIAN CORPORATION 2830 HWY 421 NORTH WILMINGTON, NC 28401
DESTINATION (ORIGIN)	DESTINATION WILMINGTON, NC 28401

DELIVERING CARRIER	ROUTE	VEHICLE NUMBER 5022-2	ZIP
--------------------	-------	---------------------------------	-----

NO. PACKAGES	HM	KIND OF PACKAGE, DESCRIPTION OF ARTICLES, SPECIAL MARKS AND EXCEPTIONS	WEIGHT (lbs.) (SUBJECT TO CORR.)	CLASS OR RATE	CHARGES (FOR CARRIER USE ONLY)
1	TL X	CALCIUM NITRATE, SOLUTION 5.1, OXIDIZER, UN1454, PG III, CF C115 HOO CAL. NITRATE SOLN. 66%CG T/T	OLB 46,500	50	

PLEASE DELIVER 3/3/97 BEFORE 4:00 PM.
FAX COA TO 910/343-6601.
COA TO ACCOMPANY SHIPMENT.
A31127

IN THE EVENT OF ANY EMERGENCY CONCERNING THE CHEMICALS IN THIS SHIPMENT TELEPHONE CHEMTREC 1-800-424-9300 IN CANADA 1-202-483-7616

the shipment moves between two ports by a carrier by water, a few require that the bill of lading shall state whether it is water or shipper's weight.	NOTE: Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property. The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding	Subject to section 7 of conditions, if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement: The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.	FREIGHT PREPAID UNLESS COLLECT BOX IS CHECKED
Shipper's marks or stamps: not a part of bill of lading covered by the Interstate Commerce Commission.	\$1.80 PER POUND	(Signature of Consignor)	COLLECT <input type="checkbox"/>

This is to certify that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation, according to the applicable regulations of the Department of Transportation.

Shipper, Per **D.W. MOON** Carrier, Per _____

NEED PLACARDS. OFFERED PROVIDED

MATERIAL SAFETY DATA SHEET

PART I What is the material and what do I need to know in an emergency?

1. PRODUCT IDENTIFICATION

TRADE NAME (AS LABELED): CALCIUM NITRATE 66% and 70% TETRAHYDRATE SOLUTION

C.A.S. NUMBER: 13477-34-4

TECHNICAL BULLETINS: Liquid Calcium Nitrate 66%
Liquid Calcium Nitrate 70%

MANUFACTURER'S NAME: MINERAL RESEARCH AND DEVELOPMENT CORP.
ADDRESS: 5910 Pharr Mill Road
P.O. Box 610
Harrisburg, NC 28075

EMERGENCY PHONE: 1-800-424-9300 (CHEMTREC)
BUSINESS PHONE: 704-455-5181

DATE OF PREPARATION: February 9, 1995

2. COMPOSITION and INFORMATION ON INGREDIENTS

CHEMICAL NAME	CAS #	% w/w	EXPOSURE LIMITS IN AIR					
			ACGIH		OSHA			OTHER
			TLV mg/m ³	STEL mg/m ³	PEL mg/m ³	STEL mg/m ³	IDLH mg/m ³	
Calcium NO Nitrate Tetrahydrate	13477-34-4	66-70	NE	NE	NE	NE	NE	NE
Water	7732-18-8	30-34	NE	NE	NE	NE	NE	NE

NE = Not Established.

3. HAZARD IDENTIFICATION

SYMPTOMS OF OVER EXPOSURE BY ROUTE OF EXPOSURE: This material may cause temporary intestinal upset if swallowed. Ingestion of large quantities of this product could be fatal. This solution can cause mild skin and eye irritation.

INHALATION: There are no symptoms of inhalation exposure of Calcium (II) Nitrate Tetrahydrate which have been reported.

CONTACT WITH SKIN OR EYES: Eye contact with this product can lead to mild irritation. Contact with the skin can also lead to mild irritation.

SKIN ABSORPTION: This product is known not to contain skin absorbing agents.

INGESTION: Ingestion of this product may lead to temporary intestinal upset. Ingestion of large amounts can result in dizziness, abdominal cramps, vomiting, bloody diarrhea, weakness, convulsions, or death.

INJECTION: Injection of this product may lead to redness and irritation of the surrounding tissue.

HEALTH EFFECTS OR RISKS FROM EXPOSURE (An explanation in lay terms).

ACUTE: Ingestion of a large amount of this product can cause vomiting, an upset stomach, cramps, bloody diarrhea or death. Mild irritation can result from exposure to this product via skin or eye contact. The symptoms of acute overexposure are usually temporary.

CHRONIC: Small, repeat doses can cause weakness, depression, headache, and mental impairment.

HAZARDOUS MATERIAL INFORMATION SYSTEM			
HEALTH (ORANGE)		2	
FLAMMABILITY (RED)		0	
REACTIVITY (YELLOW)		1	
PROTECTIVE EQUIPMENT			
EYES	RESPIRATORY	HANDS	BODY
Wear eye protection	Wear respiratory protection	Wear gloves	Wear protective clothing
For routine industrial applications			

PART II What should I do if a hazardous situation occurs?

4. FIRST-AID MEASURES

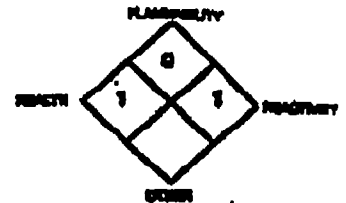
If spilled on skin or eyes, immediately begin decontamination with running water. Remove exposed or contaminated clothing, taking care not to contaminate eyes. Victim and rescuers must seek immediate medical attention. If the product is in eyes, open victim's eyes while under gentle running water. Use sufficient force to open eye lids. Have victim "roll" eyes. Minimum flushing is for 15 minutes. If chemical is inhaled, remove victim to fresh air and use artificial respiration to support vital functions. Remove or cover gross contamination to avoid exposure to rescuers.

If chemical is swallowed, CALL PHYSICIAN OR POISON CONTROL CENTER FOR MOST CURRENT INFORMATION. If professional advice is not available, give large quantities of water and induce vomiting if the victim is conscious. Never induce vomiting or give diluents (milk or water) to someone who is unconscious, having convulsions, or who cannot swallow.

Victim of chemical exposure and all rescuers must be taken for medical attention. Take copy of label and MSDS to physician or health professional with victim.

5. FIRE-FIGHTING MEASURES

FLASH POINT, °F (method): Not applicable.
AUTOIGNITION TEMPERATURE, °F: Not applicable.
FLAMMABLE LIMITS (in air by volume, %): Lower: Not applicable.
 Upper: Not applicable.



NFPA RANKING

FIRE EXTINGUISHING MATERIALS: Product will not burn or contribute to intensity of a fire. Fire fighting should be aimed at surrounding materials.

Water Spray: OK
Foam: OK

Carbon Dioxide: OK
Dry Chemical: OK

Halon: OK

SPECIAL FIRE FIGHTING PROCEDURES: Incipient fire responders should wear eye protection. Structural fire fighters **MUST** wear self-contained breathing apparatus and full protective equipment.

UNUSUAL FIRE and EXPLOSION HAZARDS: When heated to decomposition, this product will emit toxic fumes containing nitrogen oxide compounds.

6. ACCIDENTAL RELEASE MEASURES

SPILL and LEAK RESPONSE: For incidental releases, the minimum personal protective equipment should be rubber gloves and rubber apron, splash goggles or safety glasses. Uncontrolled releases should be responded to by trained personnel using pre-planned procedures. Proper protective equipment should be used. In case of a spill, clear the affected area, protect people, and respond with trained personnel. Respiratory protection should be used.

Absorb spilled liquid with polypads or other appropriate materials. Avoid splashing or spraying liquid. Decontaminate area thoroughly by rinsing with water. Place all spill residue in a double plastic bag, in appropriate sealed drum. Dispose of in accordance with Federal, State, and local hazardous waste disposal regulations.

PART III How can I prevent hazardous situations from occurring?

7. HANDLING and STORAGE

WORK PRACTICES and HYGIENE PRACTICES: Avoid getting chemicals ON YOU or IN YOU. Wash hands after handling chemicals. Do not eat or drink while handling chemicals. Follow SPECIFIC USE INSTRUCTIONS if supplied with product.

STORAGE and HANDLING PRACTICES: Store product in properly labeled, closed containers in cool location.

PROTECTIVE PRACTICES DURING MAINTENANCE OF CONTAMINATED EQUIPMENT: Follow practices indicated above. Make certain application equipment is locked and tagged-out safely. Always use this product in areas where adequate ventilation is provided. Decontaminate equipment, according to the procedures under the "Accidental Release Measure" section before maintenance begins. Collect all rinsates and dispose of according to applicable local, State, or Federal procedures.

8. EXPOSURE CONTROLS - PERSONAL PROTECTION

VENTILATION and ENGINEERING CONTROLS: Use with adequate ventilation. Use a mechanical fan or v/ area to outside.
RESPIRATORY PROTECTION: None required under routine conditions of use. Use Self-Contained Breathing Apparatus during release response procedures.
EYE PROTECTION: Splash goggles or safety glasses.
HAND PROTECTION: Use rubber or plastic gloves. Check gloves for leaks. Wash hands after removing gloves.
BODY PROTECTION: Use body protection appropriate for task. Coveralls, rubber aprons, or chemical protective clothing made from natural rubber are generally acceptable, depending upon the task.

9. PHYSICAL and CHEMICAL PROPERTIES

VAPOR DENSITY: Not applicable.
SPECIFIC GRAVITY: 1.450-1.475 @15 °C
SOLUBILITY IN WATER: Completely.
VAPOR PRESSURE: Not Applicable.
APPEARANCE and COLOR: Colorless and odorless liquid.
HOW TO DETECT THIS SUBSTANCE (warning properties): There are no unusual warning properties.

EVAPORATION RATE (n-BuAc=1): Not available.
FREEZING POINT or RANGE: Not applicable.
BOILING POINT: Not available.

10. STABILITY and REACTIVITY

STABILITY: Stable.
CONDITIONS TO AVOID: Extreme heat may cause product to decompose, producing toxic fumes of nitrogen oxides.
MATERIALS WITH WHICH SUBSTANCE IS INCOMPATIBLE: This material is incompatible with strong reducing agents and strong acids. The product will also be incompatible with water-reactive materials.
HAZARDOUS POLYMERIZATION: Will not occur.
CONDITIONS TO AVOID: Extreme heat and contact with incompatible chemicals.

PART IV Is there any other useful information about this material?

11. TOXICOLOGICAL INFORMATION

TOXICITY DATA: Calcium (II) Nitrate Tetrahydrate LD50_{oral-rat} 3900 mg/kg, skin-rabbit 500 mg/24H MLD
SUSPECTED CANCER AGENT: This product's ingredients are not found on the following lists: FEDERAL OSHA 2 LIST, NTP, IARC, CAL/OSHA.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: There are no known medical conditions which would be aggravated by exposure to this product.

Dermal Exposure: Slight irritation.
Ingestion Exposure: Temporary intestinal upset.
Inhalation Exposure: Unknown.

RECOMMENDATIONS TO PHYSICIANS: Treat symptoms.

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL STABILITY: There are no reported adverse environmental effects which have been reported for Calcium (II) Nitrate Tetrahydrate. All work practices should be aimed at eliminating environmental contamination.

EFFECT OF MATERIAL ON PLANTS or ANIMALS: Animal studies for Calcium (II) Nitrate Tetrahydrate indicate that it is a mild skin and eye irritant and moderately toxic by ingestion.

EFFECT OF CHEMICAL ON AQUATIC LIFE: There are no reported adverse effects on aquatic life due to exposure to Calcium (II) Nitrate Tetrahydrate.

13. DISPOSAL CONSIDERATIONS

PREPARING WASTES FOR DISPOSAL: Waste disposal must be in accordance with appropriate Federal, State, and local regulations. This chemical, if unaltered by the handling, may be disposed of by treatment at a permitted facility or as advised by your local hazardous waste regulatory authority.

EPA WASTE NUMBER: Not applicable to wastes consisting of this product.

14. TRANSPORTATION INFORMATION

THIS MATERIAL IS HAZARDOUS, AS DEFINED BY 49 CFR 172.101 BY THE U.S. DEPARTMENT OF TRANSPORTATION.

PROPER SHIPPING NAME:

Calcium Nitrate Solution

HAZARD CLASS NUMBER and DESCRIPTION:

5.1 (Oxidizer)

UN IDENTIFICATION NUMBER:

UN 1454

PACKING GROUP:

III

DOT LABEL(S) REQUIRED:

Oxidizer

EMERGENCY RESPONSE GUIDE NUMBER:

35

15. REGULATORY INFORMATION

SARA REPORTING REQUIREMENTS: Calcium (II) Nitrate Tetrahydrate, as a "Nitrate Compound", is subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act.

TSCA INVENTORY STATUS: The chemical listed in this product is exempt from TSCA since it is a hydrolyzable inorganic salt. It is listed in the TSCA Inventory.

HAZARD POLYMER: This product contains no chemicals which have been designated by the Department of Transportation to be Marine Pollutants in 49 CFR 172.101, Appendix B.

CALIFORNIA PROPOSITION 65: No component of this solution is on the California Proposition 65 list; CERCLA REPORTABLE QUANTITIES (RQ): Not applicable.

STATE REGULATORY INFORMATION: The following chemical in this product is covered under specific state regulations:

New Jersey - Right to Know Hazardous Substance List: Calcium Nitrate.

HAZARDING (Hazardous) Statements: IRRITANT; May cause mild irritation of skin and eyes upon contact. Ingestion of large quantities can lead to vomiting, stomach pain, and may be fatal. Avoid contact with skin and eyes. Do not ingest. Avoid breathing mists and sprays. Wear gloves and safety goggles. Work in well ventilated area.

~~16. OTHER INFORMATION~~

PREPARED BY:

CHEMICAL SAFETY ASSOCIATES, Inc.
9163 Chesapeake Drive,
San Diego, CA 92123-1002
619/565-0302

Information contained in this MSDS refers only to the specific material described and does not relate to any process or to use with any other materials. This information is published at the discretion of the manufacturer and is based on data believed to be reliable as of the date hereof. It is intended for use by persons possessing technical knowledge at their own discretion and risk. Since actual use is beyond our control, no guarantee, expressed or implied, and no liability is assumed by Mineral Research and Development Corporation in conjunction with the use of this information. Nothing herein is to be construed as a recommendation to infringe any patents.

Bureaucracy

Is your RETURN ADDRESS completed on the reverse side?

SENDER:

- Complete items 1 and/or 2 for additional services.
- Complete items 3, 4a, and 4b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):

- 1. Addressee's Address
- 2. Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

MR SYL BARTOS
CHEMICAL SPECIALTIES INC
POST OFFICE BOX 640
HARRISBURG NC 28075

(NOV/DOCKET #96/173)

4a. Article Number

P 237 557 983 (5/24/96)

4b. Service Type

- Registered Certified
- Express Mail Insured
- Return Receipt for Merchandise COD

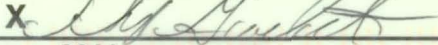
7. Date of Delivery

5/28/96

5. Received By: (Print Name)

8. Addressee's Address (Only if requested and fee is paid)

6. Signature: (Addressee or Agent)

X 

PS Form 3811, December 1994

Domestic Return Receipt

Thank you for using Return Receipt Service.

RCRIS

EPA ID#: NCD048467427
Facility name: Chemical Specialties, Inc City: Harrisburg,
N.C.

Evaulation data:
New: Change: Delete:

Person: 025 Branch: 01
Agency: s Reason:

Supervisor NOV Tracking Info

Type: CSE
Initial Inspection Date: 23 May 1996
Docket Number: 96-173
Reinsptdate: 8 Jul 1996
COMMENTS: Ticket NOV Docket #96-173 sent certified mail.

GENERATORS

GER: GRR: GLB: GMR: GOR: GPT: GSQ:

TRANSPORTERS

TGR: TMR: TOR: TRR: TWD:

USED OIL

TUO: TFO: BUO: MUO: PUO:
RUO:

TSD'S

DBF: DCH: DCL: DCP: DFR: DGS: DGW: DIN: DLB:
DLF: DLT: DMC: DMR: DOR: DOT: DPB:
DPP: DSI: DTR: DTT: DWP:

VIOLATION DATA: New: Change: Delete:

- Agency: s Type: GPT date determined: 23 May 1996
class: 2 Priority: _____ Seq.# _____
Return to compliance: 23 Jun 1996
Actual date: 23 May 1996
Reg Description: 40 CFR 262.34(a)(1)(i) ref 265.173
Comment: One container of DOO4 arsenic waste in the arsenic acid area was determined to be open. Drum was awaiting crushing and after crushing is managed as hazardous waste. A container holding hazardous waste must be closed except to add or remove waste.
- Agency: s Type: GPT date determined: 23 May 1996
class: 2 Priority: _____ Seq.# _____
Return to compliance: 23 Jun 1996

Actual date: 8 Jul 1996

Reg Description: 40 CFR 262.34(a)(1) ref 265.174 & 15A NCAC 13A .0010(i)

Comment: A documented inspection must be conducted on all <90 day storage area. The facility could not document an inspection for the last week of May, 1995 and the first week of June, 1995.

3. Agency: s Type: GPT date determined: 23 May 1996

class: 2 Priority: _____ Seq.# _____

Return to compliance: 23 Jun 1996

Actual date: 23 May 1996

Reg Description: 40 CFR 262.34(a)(2)

Comment: The accumulation start date was not marked on an open drum of D004 arsenic waste in the arsenic acid area (This is the same container noted in Item 1 above).

4. Agency: s Type: GPT date determined: 23 May 1996

class: 2 Priority: _____ Seq.# _____

Return to compliance: 23 Jun 1996

Actual date: 23 May 1996

Reg Description: 40 CFR 262.34(a)(3)

Comment: A container of D004 arsenic waste was not labeled "Hazardous Waste" in the arsenic acid area (This is the same container referenced in Item 1 above).

5. Agency: s Type: GPT date determined: 23 May 1996

class: 2 Priority: _____ Seq.# _____

Return to compliance: 23 Jun 1996

Actual date: 8 Jul 1996

Reg Description: 40 CFR 262.34(a)(4) ref 265.16(c)

Comment: Facility personnel must take part in an annual review of the initial training required in 40 CFR 265.16(a). Annual training could not be documented for Mr. David Adcock who maintains the job title "Mechanic".

Send documentation outlining compliance activities taken to address the above noted deficiencies to: NCDEHNR, 919 N. Main Street, Mooresville, N.C. 28115 Attn: Jesse Wells on or before the compliance period of 6/23/95.

6. Agency: s Type: _____ date determined: 23 May 1996

class: _____ Priority: _____ Seq.# _____

Return to compliance: _____

Actual date: _____

Reg Description: _____

Comment: _____

7. Agency: s Type: _____ date determined: 23 May 1996

class: _____ Priority: _____ Seq.# _____

Return to compliance: _____

Actual date:
Reg Description:
Comment:

8. Agency: s Type: date determined: 23 May 1996
class: Priority: _____ Seq.# _____
Return to compliance:
Actual date:
Reg Description:
Comment:

REINSPECTION RCRA FACILITY

1. FACILITY INFORMATION Chemical Specialties, Inc
 5910 Pharr Mill Road
 Harrisburg, N.C. 28075
 NCD048467427
2. FACILITY CONTACT Mr. Syl Bartos
 (704)455-5181
3. SURVEY PARTICIPANTS Syl Bartos, Paul Miano
4. DATE OF INSPECTION 8 Jul 1996
5. PURPOSE OF INSPECTION

To determine compliance with NOV, Docket Number 96-173

6. FACILITY DESCRIPTION

CSI, Inc. is a manufacturer of inorganic chemicals predominantly used in the wood preserving industry. The facility closed three former surface impoundments. Waste removed from the impoundments was stabilized with portland cement & fly ash and buried in an on-site landfill. The landfill covers 1.074 acres. 345,856 cubic feet of characteristic hazardous waste was chemically stabilized and disposed in the landfill. This facility is subject to a Part B permit and at the present time is in the process of permit renewal subject to corrective action and post closure requirements.

7. SITE DEFICIENCIES

The initial inspection found the facility to be in violation of the following:

- 1) 40 CFR 262.34(a)(1)(i) ref 265.173: One container of D004 arsenic waste in the arsenic acid area was determined to be open. Drum was awaiting crushing and after crushing is managed as hazardous waste. A container holding hazardous waste must be closed except to add or remove waste.
- 2) 40 CFR 262.34(a)(1) ref 265.174 & 15A NCAC 13A .0010(i): A documented inspection must be conducted on all <90 day storage area. The facility could not document an inspection for the last week of May, 1995 and the first week of June, 1995.
- 3) 40 CFR 262.34(a)(2): The accumulation start date was not marked on an open drum of D004 arsenic waste in the arsenic acid area (This is the same container noted in Item 1 above).
- 4) 40 CFR 262.34(a)(3): A container of D004 arsenic waste was not labeled "Hazardous Waste" in the arsenic acid area (This is the same

container referenced in Item 1 above).

5) 40 CFR262.34(a)(4) ref 265.16(c): Facility personnel must take part in an annual review of the initial training required in 40 CFR 265.16(a). Annual training could not be documented for Mr. David Adcock who maintains the job title "Mechanic".

Send documentation outlining compliance activities taken to address the above noted deficiencies to: NCDEHNR, 919 N. Main Street, Mooresville, N.C. 28115 Attn: Jesse Wells on or before the compliance period of 6/23/95.

- 6) :
- 7) :
- 8) :

The reinspection found the facility in compliance with these violations.

9. SIGNED

Jesse Wells July 8, 1996
INSPECTOR DATE

FACILITY CONTACT

June 6, 1996

Certified Mail
Return Receipt Request



Mr. Jesse Wells
Waste Management Specialist
Hazardous Waste Section
North Carolina Department of
Environment, Health and
Natural Resources
919 N. Main Street
Mooresville, North Carolina 28115

Re: May 23, 1996 Inspection
Follow-up Documentation

Dear Mr. Wells:

In accordance with your inspection of May 23, 1996 and subsequent Notice Of Violation, I offer the following outlining compliance activities taken to address the noted deficiencies as referenced by your letter of May 24, 1996.

1. Open container awaiting crushing and disposal. This drum was immediately crushed and disposed of as witnessed by you prior to leaving the site. CSI still contends that the event did not constitute a violation. The drum contained less than one (1) inch of D004 material. Per 40 CFR 261.7(b)(1)(ii), this drum is considered empty and is not subject to regulations of Part 261 through 265, 268, 270 or 124. We find it difficult to understand that since we took the more conservative approach to dispose of the container as hazardous waste, even though by regulation it is not, that we are then subject to violations. From an impact to the environment viewpoint, we believe that we took the correct steps.
2. Failure to perform weekly inspections of <90 day storage area on two occasions. As discussed, we agree with your findings and offer that we internally identified this deficiencies and corrected the issue subsequently. Our Environmental Assistant was new to his position and inadvertently missed documenting the inspections. At this time we experience a number of organizational changes, mainly brought about by death threats letters send to our Shift Managers, Operations Manager and VP of Operations. There is no doubt that this had an impact on the organization particularly when the FBI and local police were unable to trace the perpetrators. We took a number of steps to ensure, as far as we were able, that all of our procedures remained in place. However, we did discover the two occasions where the inspections were missed. We apologize for this but we are sure that you will understand how it arose. Follow-up

Mr. Jesse Wells

May 31, 1996

Page 2

procedures with the Environmental Manager and myself have since alleviated the situation.

3. See #1 above.
4. See #1 above.
5. Missed training for Mr. Adcock. Training has been given to Mr. Adcock as documented by the attached copy of his training. As you recall Mr. Adcock was on medical leave when the formal training was given and was not trained when he returned. The training he received is the same training he has been receiving for the last several years with no changes. Thus, the actual potential for harm to the environment, due to lack of documented training, was minimal if non existent.

We would like to thank you for your observation concerning improved housekeeping standards on the site and we look for continued improvement as should be evident in your next annual inspection. If you have any other questions please feel free to contact me at your convenience. Thank you for your time and consideration in this matter.

Sincerely,



Sylvester J. Bartos
Compliance Manager
Chemical Specialties, Inc.

cc: D.W. Moon
P. Miano

CHEMICAL SPECIALTIES, Inc.
MEETING RECORD

Person Conducting: PAUL MZANO	Department/Area: COMPLIANCE
Meeting Date: 5/29/96	Meeting Time: 1:20

Persons Attending	
David Colacich	

What was the Topic (Attach agenda or syllabus as needed)?
HAZARDOUS WASTE TRAINING

What training aids were used?
COPY OF PROGRAM, VIDEOS

What significant questions or concerns were addressed?
HOW TO PROPERLY DISPOSE OF HAZARDOUS WASTE
HOW TO RECOGNIZE HAZARDOUS WASTE

List resulting action items, responsibilities and target dates:

	Actions	Responsibility	Target Date
1.	NONE		
2.			
3.			

Distribution:
Original: Safety Department
cc: Instructor
Responsible Parties

P 237 557 983

US Postal Service (5/24/96)

Receipt for Certified Mail

No Insurance Coverage Provided.

Do not use for International Mail (See reverse)

Sent to Mr. Syl Bartos	
Street & Number Chemical Specialties, Inc.	
Post Office, State, & ZIP Code P.O. Box 640	
Postage	Harrisburg, NC 28075
Certified Fee	NOV/Docket #96-173/JWW
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	\$
Postmark or Date	

PS Form 3800, April 1995

RCRIS

EPA ID#: NCD048467427

Facility name: Chemical Specialties, Inc City: Harrisburg,
N.C.

Evaulation data:

New: Change: Delete:

Person: 025 Branch: 01

Agency: s Reason:

Supervisor NOV Tracking Info

Type: CEI

Initial Inspection Date: 23 May 1996

Docket Number: 96-173

Reinsptdate:

COMMENTS: Ticket NOV Docket #96-173 sent certified mail.

GENERATORS

GER: GRR: GLB: GMR: GOR:

GPT: GSQ:

TRANSPORTERS

TGR: TMR: TOR: TRR: TWD:

USED OIL

TUO: TFO: BUO: MUO: PUO:

RUO:

TSD'S

DBF: DCH: DCL: DCP: DFR: DGS: DGW: DIN: DLB:

DLF: DLT: DMC: DMR: DOR: DOT: DPB:

DPP: DSI: DTR: DTT: DWP:

VIOLATION DATA: New: Change: Delete:

1. Agency: s Type: GPT date determined: 23 May 1996

class: 2 Priority: _____ Seq.# _____

Return to compliance: 23 Jun 1996

Actual date:

Reg Description: 40 CFR 262.34(a)(1)(i) ref 265.173

Comment: One container of D004 arsenic waste in the arsenic acid area was determined to be open. Drum was awaiting crushing and after crushing is managed as hazardous waste. A container holding hazardous waste must be closed except to add or remove waste.

2. Agency: s Type: GPT date determined: 23 May 1996

class: 2 Priority: _____ Seq.# _____

Return to compliance: 23 Jun 1996

Actual date:

Reg Description: 40 CFR 262.34(a)(1) ref 265.174 & 15A NCAC 13A .0010(i)

Comment: A documented inspection must be conducted on all <90 day storage area. The facility could not document an inspection for the last week of May, 1995 and the first week of June, 1995.

3. Agency: s Type: GPT date determined: 23 May 1996

class: 2 Priority: _____ Seq.# _____

Return to compliance: 23 Jun 1996

Actual date:

Reg Description: 40 CFR 262.34(a)(2)

Comment: The accumulation start date was not marked on an open drum of D004 arsenic waste in the arsenic acid area (This is the same container noted in Item 1 above).

4. Agency: s Type: GPT date determined: 23 May 1996

class: 2 Priority: _____ Seq.# _____

Return to compliance: 23 Jun 1996

Actual date:

Reg Description: 40 CFR 262.34(a)(3)

Comment: A container of D004 arsenic waste was not labeled "Hazardous Waste" in the arsenic acid area (This is the same container referenced in Item 1 above).

5. Agency: s Type: GPT date determined: 23 May 1996

class: 2 Priority: _____ Seq.# _____

Return to compliance: 23 Jun 1996

Actual date:

Reg Description: 40 CFR 262.34(a)(4) ref 265.16(c)

Comment: Facility personnel must take part in an annual review of the initial training required in 40 CFR 265.16(a). Annual training could not be documented for Mr. David Adcock who maintains the job title "Mechanic".

Send documentation outlining compliance activities taken to address the above noted deficiencies to: NCDEHNR, 919 N. Main Street, Mooresville, N.C. 28115 Attn: Jesse Wells on or before the compliance period of 6/23/95.

6. Agency: s Type: _____ date determined: 23 May 1996

class: _____ Priority: _____ Seq.# _____

Return to compliance: _____

Actual date: _____

Reg Description: _____

Comment: _____

7. Agency: s Type: _____ date determined: 23 May 1996

class: _____ Priority: _____ Seq.# _____

Return to compliance: _____

NOTICE OF VIOLATION
Inspection date: 23 May 1996

Chemical Specialties, Inc
5910 Pharr Mill Road
Harrisburg, N.C.
28075

Facility Type: Generator
Docket #: 96-173

NCD048467427

On December 18, 1980, the State of North Carolina, Hazardous Waste Section (State) was authorized to operate the State RCRA hazardous waste program under the Solid Waste Management Act (ACT), N.C.G.S. 130A, Article 9 and rules promulgated thereto at 15A NCAC 13A (Rules) in lieu of the federal RCRA program.

On 23 May 1996, Jesse W. Wells, representing the N.C. Hazardous Waste Section, inspected your facility for compliance with North Carolina Hazardous Waste Management Rules. During that inspection, the following violations were noted:

Specifics

- 1) 40 CFR 262.34(a)(1)(i) ref 265.173 - One container of D004 arsenic waste in the arsenic acid area was determined to be open. Drum was awaiting crushing and after crushing is managed as hazardous waste. A container holding hazardous waste must be closed except to add or remove waste.
- 2) 40 CFR 262.34(a)(1) ref 265.174 & 15A NCAC 13A .0010(i) - A documented inspection must be conducted on all <90 day storage area. The facility could not document an inspection for the last week of May, 1995 and the first week of June, 1995.
- 3) 40 CFR 262.34(a)(2) - The accumulation start date was not marked on an open drum of D004 arsenic waste in the arsenic acid area (This is the same container noted in Item 1 above).
- 4) 40 CFR 262.34(a)(3) - A container of D004 arsenic waste was not labeled "Hazardous Waste" in the arsenic acid area (This is the same container referenced in Item 1 above).
- 5) 40 CFR 262.34(a)(4) ref 265.16(c) - Facility personnel must take part in an annual review of the initial training required in 40 CFR 265.16(a). Annual training could not be documented for Mr. David Adcock who maintains the job title "Mechanic".

Send documentation outlining compliance activities taken to address the above noted deficiencies to: NCDEHNR, 919 N. Main Street, Mooresville, N.C. 28115 Attn: Jesse Wells on or before the compliance period of 6/23/95.

6) -

7) -

8) -

You are hereby required to correct the noted violation(s) by 23 Jun 1996, at which time a reinspection will be performed. If compliance with the violation(s) noted above are not met, pursuant to N.C.G.S. 130A - 22(a) and 15A NCAC 13B .0701 - .0707, an administrative penalty of up to \$25,000.00 per day may be assessed for violation of the hazardous waste law or regulations.

May 24th 1996
(Date)

Jesse W. Wells
N.C. Hazardous Waste Section

I, Jesse W. Wells, hereby certify that I have personally served a copy of this Notice on:

Mr. Dyl. Bortos, at Chemical Specialties, Inc.

on May 24, 1996. Sent Certified Mail
(Recipient Signature)

copies to: field files
central files
Regional Office

RCRA INSPECTION REPORT

1. FACILITY INFORMATION Chemical Specialties, Inc
5910 Pharr Mill Road
Harrisburg, N.C. 28075
NCD048467427 Generator/Disposal
2. FACILITY CONTACT Mr. Syl Bartos
(704)455-5181
3. SURVEY PARTICIPANTS Syl Bartos, Paul Miano
4. DATE OF INSPECTION 23 May 1996
5. PURPOSE OF INSPECTION To determine compliance with 40 CFR 262,
264, 268 and 279.
6. FACILITY DESCRIPTION

CSI, Inc. is a manufacturer of inorganic chemicals predominantly used in the wood preserving industry. The facility closed three former surface impoundments. Waste removed from the impoundments was stabilized with portland cement & fly ash and buried in an on-site landfill. The landfill covers 1.074 acres. 345,856 cubic feet of characteristic hazardous waste was chemically stabilized and disposed in the landfill. This facility is subject to a Part B permit and at the present time is in the process of permit renewal subject to corrective action and post closure requirements.

7. TYPE WASTE

D004,D007,D009-Rubbish debris, PPE, rags, gloves, etc.

D004,D009-Filter waste from production of arsenic acid.

P012/D009-Shredded propylene bags w/ residue of arsenic trioxide

F003 paint liquid/solid wastes

8. AREAS OF INSPECTION

(Yes = compliance, no = violation, na = not applicable)

- Emergency Preparedness: yes
- Inspection Records: no
- Contingency Plan: yes
- Training Records: no
- Manifests/LDR: yes

- 90/180 day storage areas: The facility maintains three areas which are regulated as <90 day storage areas. The main storage area is located in the warehouse. One additional area is located within the bulk bag collection equipment. A roll-off box is also located in the arsenic acid area.

- **Satellite Accumulation Area:** The facility maintains numerous "satellite" accumulation areas. A checklist is attached with the accumulation areas and the inspection findings.

- **External facility condition:** Fair

- **Other HW units:** Closed hazardous waste landfill of 1.074 acres. No areas of erosion were noted on the landfill cap. The facility maintains six groundwater monitor wells near the unit. The facility is subject to Part B permitting requirements as a disposal facility subject to corrective action.

- **Recomendations:** 1. Only 55 gallons of waste per area may be accumulated in a "satellite" accumulation point.

2. Housekeeping improvements noted as far as "incidental spills/releases of materials within process areas.

9. Waste Minimization

Facility has a written program in place and conducts a yearly review of waste minimization activities

10. SITE DEFICIENCIES:

Not in Compliance

1) 40 CFR 262.34(a)(1)(i) ref 265.173: One container of D004 arsenic waste in the arsenic acid area was determined to be open. Drum was awaiting crushing and after crushing is managed as hazardous waste. A container holding hazardous waste must be closed except to add or remove waste.

2) 40 CFR 262.34(a)(1) ref 265.174 & 15A NCAC 13A .0010(i): A documented inspection must be conducted on all <90 day storage area. The facility could not document an inspection for the last week of May, 1995 and the first week of June, 1995.

3) 40 CFR 262.34(a)(2): The accumulation start date was not marked on an open drum of D004 arsenic waste in the arsenic acid area (This is the same container noted in Item 1 above).

4) 40 CFR 262.34(a)(3): A container of D004 arsenic waste was not labeled "Hazardous Waste" in the arsenic acid area (This is the same container referenced in Item 1 above).

5) 40 CFR 262.34(a)(4) ref 265.16(c): Facility personnel must take part in an annual review of the initial training required in 40 CFR 265.16(a). Annual training could not be documented for Mr. David Adcock who maintains the job title "Mechanic".

Send documentation outlining compliance activities taken to address the above noted deficiencies to: NCDEHNR, 919 N. Main Street,

Mooreville, N.C. 28115 Attn: Jesse Wells on or before the compliance period of 6/23/95.

6) :

7) :

8) :

Jesse W. Wells
INSPECTOR

5/24/96
DATE

Sent Certified Mail
FACILITY CONTACT

**Division of Solid Waste Management
Hazardous Waste Section**

Chemical Specialties, Inc.
NCD 048467427
Cabarrus County, N.C.

Date May 23, 1996

Satellite Areas	<55 Gallons No. of Containers	Labeled	Closed
1. Man. Arsenic Trioxide Unloading Area	✓	✓	✓
2. Arsenic Acid Rotary Vac.	✓	✓	✓
3. Copper Nitrate	✓	✓	✓
4. (2) CCA Prod	✓ ✓	✓ ✓	✓ ✓
5. Pilot Plant			
6. (6) QC Labs	✓	✓	✓
7. R&D Labs	✓	✓	✓
8. (2) R&D Cylinder Area	✓	✓	✓
	<i>1. 55G Arsenical Pesticide</i>	<i>1. 55G Mineral Spirits</i>	
9. (3) Maintenance	1. ✓	✓	✓ CCA Rubish
	2. ✓	✓	✓ Spent Thinner
	3. ✓	✓	✓ Paint Wipes
10. 198 Control Room	✓	✓	✓
11. 198 Labs	✓	✓	✓
12. 198 Break Room	✓	✓	✓
13. Bulk Bag	✓	✓	✓
14. Shower Bldg 216	✓	✓	✓
15. Mezzanine Driveway #3	✓	✓	✓
Three <90 Day Storage Areas			
	Dated	Labeled	Closed
1. Arsenic Acid Area (Roll off)	✓	✓	✓

Page Two
CSI Satellite/ Storage Area

	<u>Dated</u>	<u>Labeled</u>	<u>Closed</u>
2. Bulk Bag Room	✓	✓	(Enclosed within equipment)
3. Warehouse Storage	✓	✓	(655G Drums 60cu.yd.bags) ✓

Division of Solid Waste Management
Hazardous Waste Section

Chemical Specialties, Inc
NCD 048467427
Cabarrus County, N.C.

Date: May 23, 1996

TSDF INSPECTION FORM - PART 264
SUPPLEMENTAL CHECKLIST FOR FACILITY - SPECIFIC CONDITIONS

1. Post -closure documents to be maintained at facility site (Permit Conditions I.F.).

- Corrective action system operation and maintenance plans.
- Cost estimate for corrective action system.
- Post-closure plan(s).
- Cost estimate for post-closure care.
- Inspection schedules developed in accordance with 264.15(b).
- Operating record required by 264.73 and Permit Condition III. E.
- Corrective Action Plans and reports required by 264.101.
- Groundwater monitor records used to develop reports required by the permit.
- A survey plat and record of the type, location and quantity of hazardous waste or hazardous constituents disposed of within each cell or area of the facility (to include solid waste management units) as required by 264.119. *345,856 cubic feet char. haz. waste. D4, D6, D8 - 52000 cu. ft. cont. soil*
- All reports and documentation of compliance with 264.118(a), (b)(1) and (2) during the post-closure period.

GROUND WATER INSPECTION FORM - PART 265

Name of Site: Chemical Specialties, Inc.

EPA I.D.: NCD 048 467 427

County: Cabarrus

Inspection Date: May 23, 1996

Signature of Inspector(s): Jesse W. Wells

Signature of Facility Contact: x [Signature]

In each blank place a "C" for in compliance, or an "X" for not in compliance, or a "N/A" if not required. All blanks should be completed.

SUBPART F - GROUND WATER MONITORING

1. Install, operate, and maintain ground water monitoring system in compliance with 265.90(b) reference 265.91 or 265.90(d)

C minimum of 4 wells installed; one of the wells must be installed upgradient and the other wells must be located downgradient of the waste management area; the downgradient wells must be as close as technically feasible to the limits of the waste management area.
6 Compliance monitor wells

2. Ground Water Sampling and Analysis Plan

C developed and maintained in accordance with 265.92(a)

3. Ground Water Assessment Plan [(265.93(d)(2))]

C developed and submitted to the State Program Administrator, if required.

4. Quarterly/Semi Annual Ground Water Sampling [265.93(d)(7)]

C quarterly and/or semi-annual ground water samples collected and analyzed as specified.

5. Record Keeping and Reporting [265.94(b)]

C maintain records of ground water sample analyses at the facility.

N/A submit annual report containing the results of the Groundwater Assessment Program by March 1, 19__.
264 Permitted Facility. Report dated 2/21/1996

SUBPART K: SURFACE IMPOUNDMENTS CHECKLIST

NAME: Chemical Specialties Inc

EPA ID # NCD: 048 467 421

COUNTY: Cabarrus

DATE: May 23, 1996

FACILITY CONTACT: Mr. Syl Bartos

WASTE MANAGEMENT SPECILIST: Jesse W. Wells

INSTRUCTIONS: In the space provided, check the appropriate response

Non Regulated (RCRA) Impoundment

- | | YES | NO |
|---|---------|-----|
| 1. General operating requirements:
At least 60 cm (2 feet) of freeboard
(Note overtopping by overflowing,
wave action, or a storm) (265.222) | (✓) | () |
| 2. Containment system: dikes
adequately covered with grass,
shale or rock (note erosion) (265.223) | (✓) | () |
| 3. Waste analysis and trial tests: (265.225) | | |
| a. <u>procedures</u> for and <u>records</u> of
waste analysis and trial tests | (✓) | () |
| 4. Inspections and maintenance of: (265.226) | | |
| a. freeboard level (265.226(a)(1)) | (✓) | () |
| b. dikes (265.226(a)(2)) | (✓) | () |
| c. vegetation surrounding dikes (265.226(a)(2)) | (✓) | () |
| 5. Closure and post closure plans
present at site (265.228) | () n/a | () |
| 6. Proper disposal of ignitable or reactive
wastes (265.229) | () n/a | () |
| 7. Proper disposal of incompatible wastes (265.230) | () n/a | () |
| 8. Evidence of leaks, deterioration, or
malfunction | () | (✓) |

State of North Carolina
Department of Environment, Health, and Natural Resources
Division of Solid Waste Management
Hazardous Waste Section

SITE SAFETY PLAN (SSP) UPDATE FORM
(Regulated Facility)

(A) Facility Name: Chemical Specialties, Inc EPA ID# NCD 048 461 421
Address: 5910 Pharr Mill Road Harrisburg, N.C. Phone# _____
Contact: Mr Syl Bartos Phone# _____
Facility Safety Designee: _____
HWSS Staff: Jesse W. Wells Date: _____

(B) REVIEW AND CHANGES

SSP Reviewed: SSP Changed: (1) SSP Unchanged:

Comments: Reviewed facility's contingency plan
Hard hat, Ear Plugs

(1) NOTE: Any changes made in the facility process descriptions or health and safety considerations section of the SSP must be shown on a new SSP.

(C) EMERGENCY INFORMATION

Ambulance: Harrisburg Rescue Telephone# 911

Hospital: Cabarrus Memorial Hospital Telephone# 911

Police: Cabarrus County Emer. Services Telephone# 911

Fire Dept.: Cabarrus County Emer Services Telephone# 911

Fire & Emergency Signals Reviewed: ADT Focus 100 Unit Jesse W. Wells 5/21/96

Site Evacuation Plan Reviewed: Jesse W. Wells 5/21/96

SAFETY OFFICER: [Signature] DATE: 5/23/96

RCRA INSPECTION REPORT

X = VIOLATION NOTED NA = NOT APPLICABLE

Facility Name: Chemical Specialties, Inc.

Location: 5910 Pharr Mill Road

Mailing Address: P.O. Box 610 Harrisburg, N.C.

EPA ID#: NCD 048 467 427 Phone Number: (104) 455-5181

Contact/Title: Mr. Syl Bartos

Inspection Date: May 23, 1996 Last Inspection: April 26, 1995

Status: Generator/TSDF/Trans. Type of Inspection: CEI

Inspector(s): J. Wells (025)

Present at Inspection: Mr. Syl Bartos, Mr. Paul Miano

Type of Business: Production facility for inorganic chemicals; predominantly used in wood treatment

Wastes Generated: D004 Arsenic Solid (Lubricant/Resin), F003 paintst Solid, OS Trioxide P012, D009
D004/D007 Arsenic/Chromium

Manifests: Approved Transporters? Approved TSDF?

Filed Out Correctly? Signed Copies?

LDR Notification Attached?

(T) Wills Trucking OHD 068913409 (D) Ecoflo NCD 980842132

T. STAT NCD 980199142

Waste Minimization: Written Program - Facility conducts yearly tracking

Inspection Records: Perimeter Fence: Daily Weekly: 290 day, GWsys., Closed Impoundments

Evidence that inspections are conducted: Yes: Documented

Records reviewed

Contingency Plan:

On-Site? Yes

Any changes to facility/processes or Emergency Coordinator since last review? No

Contingency Plan Implemented? No (If yes, was it adequate?)

No major spills/fire since last insp.

Training Records:

Certified Training Documents Available? Yes

New Employees Since Last Inspection?

Evidence of Improper/Inadequate Training?

Employee Interviews:

Name(s): Trained?

Annual Report Submitted? Yes

Emergency Preparedness:

Facility Maintained and Operated to Prevent Releases? Yes

Facility has begun to line/provide containment for process tanks

Internal Communications or Alarm Present? Yes

Portable Fire Extinguishers and/or Fire Control Equipment? Yes

Available for use

Spill Control Equipment: Yes

Adequate Water Volume, Foam Equipment or Auto Sprinklers?

County water system

All Equipment/Alarms Tested and Maintained? AD1 monthly

Page Two - RCRA Inspection Report

Facility Name: Chemical Specialties, Inc

EPA ID#: NCD 048 467 427

Inspection Date: May 23, 1976

All Personnel Handling HW have Access to Alarm/Device? _____

Two-Way Radios

Adequate Aisle Space in Areas of Facility Operation? yes

Agreements with Emergency Responders? Agreements in place

Discussed on P. 25 of the facility's contingency plan.

Satellite Accumulation Area(s): _____

Location(s): Attachment

Satellite Containers: Closed?

Labeled/Contents Identified?

< 55 Gallons?

Storage Area(s): (3) Description: Warehouse storage - Cubic yd. boxes (drum waste)
2) Roll off Box - Arsenic Acid Area, 3) Bulk Bag - Arsenic Trioxide (empty bags generated)

Containers: Closed? Aisle Space? Labeled?

Dated? Evidence of Release? no

< 90 Days? Good Condition?

Other HW Units: (Applicable Regulations)

Description of Unit: No erosion noted on closed haz waste landfill.

External Facility Condition: fair

Site Deficiencies:

1. Open drums of characteristic arsenic waste noted in drum crushing area. (Greater than one inch of waste noted in container. Normal handling/management of this drum was explained to be crush the drums & handle @ haz waste in filter. (Drum was crushed and placed in cubic yd' box for disposal haz waste at the time of the inspection)

2. David Adcock - Mechanic - No documented training.

3. No documented inspection conducted on <90 day storage area last week in May through first week in June 1975

Facility

Comment # 1 Above: Drum contents measured to be less than one inch by Ops. mgr. S.E. Novak.

Page Three - RCRA Inspection Report

Facility Name: Chemical Specialties, Inc.
EPA ID#: NCD 048 467 427
Inspection Date: May 23, 1996

Site Deficiencies (Continued): _____

Recommendations: 1. Only 55 Gallons total of hex waste may be collected in "satellite accumulation area(s)"
2. Housekeeping improvements noted, as far as "incidental spills/releases of materials"

Jesse Wells 5/23/96
Inspector (Date)

[Signature] 5/23/96
Facility Contact (Date)

Follow Up Inspection:

Comments: _____

Inspector (Date)

Facility Contact (Date)



FAX TRANSMISSION

To: Jesse Wells From: Syl Bantor
Company: _____ Date: _____ Page 1 of 2
Fax No: 663-6040 Re: _____

Jesse:

I talked with Mr. Miano and he indicated that at that time (1985) he did not audit the weekly inspections on his Internal audit. He ~~did not~~ he knew that the inspection was not done because he would include a note in each month's file to indicate its status. Attached is the note that was in the June 1985 file indicating he only had 2 of 5 weekly inspections. Please call if you have any questions. 455-4138

Mahe

Syl Bantor

ALL DAILY SHEETS OK. 2 OF 5 WEEKLY SHEETS Paul

State of North Carolina
Department of Environment,
Health and Natural Resources
Division of Solid Waste Management



James B. Hunt, Jr., Governor
Jonathan B. Howes, Secretary
William L. Meyer, Director

January 18, 1996

Mr. Sylvester J. Bartos
Compliance Manager
Chemical Specialties, Inc.
Post Office Box 610
Harrisburg, NC 28705

Re: RCRA Permit Modification
Chemical Specialties, Inc.
Facility ID # NCD 048 467 429

Dear Mr. Bartos:

A review of your request for a permit modification to change the Contingency Plan has been processed as a class one (1) permit modification under 40 CFR 270.42 as referenced in 15A NCAC 13A .0013. To comply with 40 CFR 270.42 you must notify all persons on the enclosed mailing list with the exception of the State and EPA who have already been notified.

This permit modification does not cause a change in the actual permit document, however the attached application pages should replace the corresponding pages in the application.

Approval of this modification is therefore granted and has been incorporated into your permit. If you have any questions, please contact Beth Hartzell at (919) 733-2178 ext 226.

Sincerely,

James A. Carter, Chief
Hazardous Waste Section

Enclosure

cc: G. Alan Farmer, US EPA, Region IV w/attachment
A. Preston Howard, Jr., DEM w/attachment
Jesse Wells, w/attachment

rc: Jill E. Burton
Christine A. Ritter
Robert L. Glaser

Sharron E. Rogers
Gena M. Driscoll
Elizabeth A. Hartzell

EAH\tc-23.wp5

MAILING LIST

CHEMICAL SPECIALTIES, INC.
NCD 048 467

Mr. G. Alan Farmer, Chief
RCRA Branch
Waste Management Division
US EPA, Region IV
345 Courtland Street, NE
Atlanta, Georgia 30365

Mr. A. Preston Howard, Jr., P.E.
Director, Division of Environmental Management
Department of Environment, Health and Natural Resources
Post Office Box 29535
Raleigh, North Carolina 27626-0535

Mr. Jerome H. Rhodes, Chief
Hazardous Waste Section
Department of Environment, Health and Natural Resources
Post Office Box 27687
Raleigh, North Carolina 27611-7687

Mr. John V. Witherspoon
Cabarrus County Manager
Government Center
65 Church Street, SE
Concord, North Carolina 28025

Mr. William F. Pilkington
Director, Cabarrus County Health Services
715 Cabarrus Avenue, West
Concord, North Carolina 28025

Mr. Jesse Wells, Waste Management Specialist
Mooresville Regional Office
Hazardous Waste Section, DEHNR
919 North Main Street
Mooresville, North Carolina 28115

EAH-38.wp4(2)



**EMERGENCY RESPONSE PLAN,
HAZARDOUS WASTE CONTINGENCY PLAN
and
OIL SPILL PREVENTION CONTROL AND COUNTER MEASURE PLAN**

**CHEMICAL SPECIALTIES, INC.
P.O. BOX 610
HARRISBURG, NORTH CAROLINA 28075**

**Prepared to comply with SPCC Plan and Hazardous Waste
Contingency Plan according to 40 CFR, Parts 112, 264 and
265.**

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- 11 Return Receipts for Copy Distribution**

1.0 FACILITY INFORMATION

Facility Name and Location

Chemical Specialties, Incorporated

Physical Address:

**5910 Pharr Mill Road
Harrisburg, North Carolina 28075**

Mailing Address:

**Post Office Box 610
Harrisburg, North Carolina 28075**

Normal Working Hours:

**24 hours per day
7 days per week**

Owner:

**Laporte, Incorporated, U.S.
One Woodlawn Green
Charlotte, North Carolina 28217**

David W. Moon, Vice President of Operations

Initial Date of Operation: 1964

2.0 PLANT EMERGENCY ORGANIZATION

The following individuals comprise the Harrisburg Site Emergency Response Team. Each heading represents the function of key individuals. Alternates for the functions, in lieu of the absence of the primary member (designated as No. 1), are indicated in descending order under each heading.

The Emergency Response Coordinator has the authority to commit all necessary company resources to the implementation of this Contingency Plan.

2.1 Emergency Response Coordinators

1. Syl Bartos
2. Heath Howie

2.2 Public Relations Officer

1. David Moon
2. Syl Bartos

2.3 Specialists

Wood & Industrial

1. Steve Novak
2. Bobby Baggett

Site Utilities

1. Doug Barnette
2. John Troutman

Site Safety (all areas)

1. Heath Howie
2. Syl Bartos

Transportation

1. Syl Bartos
2. Andy Bellamy

Laboratory/R&D

1. Jim Driggers
2. Kevin Archer

2.4 Site Early Response Teams

Fires

Site- Doug Barnette/John Troutman w/ maint. dept.

Spills/Releases with area employees

198 & CCA - Chief Operators - Kirk Adams
Derek Stevenson

Ind -John Cade

Peroxide - Joe Creech

Warehouses - Buford Bost

Maint./Utilities - Doug Barnette

Offshift

Shift Managers - John Feaster
Lowell Gasaway
Larry Love
Larry Morrow

2.5 Key Personnel Contact Numbers

MAIN SITE PHONE NUMBER IS 1-704-455-5181 Extension 221

EMERGENCY AND OFF-HOURS PHONE NUMBER IS 1-704-455-9315

	Direct Dial #	Pager #	Nationwide ID #
Response Coordinators			
Syl Bartos	455-4138	see below	see below
Heath Howie	455-4171	see below	see below
Maintenance	455-4155	559-3649	
Laboratory	455-4168	559-3648	
Dispatcher	455-4141	559-3646	
Shift Manager on Duty	455-4136		

Name	Home Phone #	Pager #	Nationwide ID #	Car #
David Moon	442-9206			577-9803
Syl Bartos	1-704-846-3973	559-3652	9994419	577-0493
Heath Howie	545-5073	559-3653	9994420	577-7269
Andy Bellamy	549-8316	559-3651	9994417	577-5731
Steve Novak	875-3457	559-3631	9995173	577-9288
Larry Love	788-2977	521-0372	9995864	
Lowell Gasaway	853-1735	559-3654	9994421	
John Feaster	784-2044	521-0723	9995698	
Larry Morrow	782-7949	559-3650	9994415	
Bobby Baggett	563-5823			

Name	Home Phone #	Pager #	Nationwide ID #	Car #
Buford Bost	786-6834			
Doug Barnette	633-7182			
Kirk Adams	938-7405			
Derek Stevenson	786-1961			
Jim Driggers	366-5818			
John Cade	784-9130	514-7531		
John Troutman	436-2123			577-0493
Tim Renckens	948-3999			

2.6 Key Personnel Addresses

OFFICE ADDRESSES IN ALL CASES ARE:

Chemical Specialties, Incorporated

Physical Address:

**5910 Pharr Mill Road
Harrisburg, North Carolina 28075**

Mailing Address:

**Post Office Box 640
Harrisburg, North Carolina 28075**

PERSONAL ADDRESSES

**Syl Bartos
11832 Provincetowne Drive
Charlotte, NC 28277**

**Heath Howie
6511 Lebanon Road
Charlotte, NC 28227**

3.0 PLANT RISK EVALUATION

3.1 Oil and Hazardous Waste Capacities and Locations

Maximum Normal Storage Capacity

- * 40,000 gallons of #2 fuel oil
- * 80, 1-cubic yard waste boxes of untreated hazardous waste
- * 500,000 gallon catch basin for rainwater and spill control of untreated hazardous waste.
- * 9,233,000 cubic feet of treated hazardous wastes (closed lagoons).
- * One roll-off container of untreated hazardous waste.

Normal Daily Throughput

- * 20 gallons per day of #2 fuel oil
- * 3 cubic yard waste boxes of untreated hazardous waste

The facility includes the following storage tanks, ponds and areas:

Key No. (See Appendix 1A & 1B)

1. Two 20,000 gallon #2 oil cylindrical tanks; vertical, above ground
2. Lagoon #1 one half acre spill holding pond
- 2a. Two fiberglass intermediate tanks and a concrete sump are used as surge tanks prior to emptying into Lagoon #1, above.
3. Lagoon #2 one half acre filled, treated hazardous waste settling pond (closed with #4 as non-hazardous).
4. Lagoon #3 one half acre filled, treated non-hazardous waste settling pond (closed with #4 as non-hazardous).
5. Lagoon #4 one half acre filled, treated hazardous waste settling pond (closed as non-hazardous).
6. Lagoon #5 one active 2 acre non-hazardous NPDES equalization and settling pond.
7. 90-day storage area for untreated hazardous waste.
8. 90-day storage area for untreated hazardous waste in a roll-off container for waste generated from the arsenic acid reclamation filter press.

9. **Hazardous waste accumulation prior to transfer to normal storage area indicated by #7 above (Satellite Storage Areas). Appendix 1A includes a detailed list of the satellite storage areas for hazardous waste.**

3.2 Oil Systems

a. Oil Tanks

- 1. All oil tanks comply with Underwriters Laboratory specifications.**
- 2. Tank venting capacities are adequate for fill and withdrawal rates.**
- 3. Both 20,000 gallon tanks are equipped with a visual float and pulley type measuring device and ground level readout.**
- 4. The loading pipework for the two large tanks are manifold, which allows both tanks to be filled simultaneously.**
- 5. All pump starters and valves regulating flow from the storage tanks are equipped with locks and are locked out when not in use.**
- 6. All transfer piping is located above ground.**
- 7. During filling, one man is assigned to supervise the filling operation so that the tanks will not overflow. In addition, each tank will be measured prior to filling.**
- 8. Loading lines are capped when not in use.**
- 9. Sufficient drainage capacity is provided to allow transfer lines, pumps, and other equipment to be drained prior to performing maintenance work.**
- 10. An unloading checklist is posted in an easily accessible place and a sign to remind the operator to proceed according to these listed instructions is installed at the unloading point.**

b. Inspections and Testing

- 1. All tanks have been filled with their original loading of fuel or other petroleum products and inspected for leakage.**
- 2. A monthly visual inspection of piping seams, flanges, gaskets, bolts, valves, pumps and nozzle connections is scheduled. Visible leaks are corrected promptly whether discovered during or between inspections.**

3.3 Hazardous Materials

- a. A variety of hazardous materials are located on site, in tanks and vessels. The actual contents of these tanks can be determined from the site map and associated equipment listing.
- b. Each tank is labeled with a laminated sign which indicates the contents of the tank, the first aid precautions, the fire fighting procedures, the handling requirements and the HMIS designation for the material.
- c. Each tank is also labeled with the appropriate NFPA designation for the material it contains.
- d. Buildings are labeled with a NFPA designation for the contents of the structure. This determination takes into account the relative hazards and quantities of specific materials present in the structure. It does not necessarily represent the most significant hazard of every chemical in the building.
- e. MSDS's are available from the Compliance Manager if needed.

3.4 Security Measures

- a. The site is enclosed within a 6 foot height chain link fence topped with barbed wire.**
- b. An code controlled access gate is used to control access to the site of unauthorized individuals. The gate is typically open to traffic between the hours of 7:00 am and 5:30 p.m. and closed the remainder of the time and closed all hours during holidays and weekends.**
- c. Shift managers control access and ensure security at the site on weekends, 2nd & 3rd shift and holiday operations. Shift managers perform informal rounds where oil containment and hazardous waste storage areas are inspected.**

3.5 Spill Containment Systems

a. Dikes and Holding Ponds

1. A 2 foot retaining embankment has been constructed around the two fuel oil storage tanks. Capacity of the embankment is adequate to contain the entire contents of one of the 20,000 gallon tanks in the event of massive spill and still have 6 inches of freeboard to allow for the effects of a hard rain and or wear along the top of the embankment. Slope of the embankment is 2:1.
2. The diked area will drain into a sump inside the dike, from which spilled oil may be removed by portable pumps. This will prevent accidental release of spilled oil, which could occur if a channel with a gate valve were provided in the dike. Rainwater can also be removed by pumping, when desired.
3. Existing floor drains inside the boiler room lead through a 10 inch sloped drain to an existing 1/2 acre spill holding pond. This should be adequate to contain spills which occur inside the building.
4. The existing 10 inch drain line described above, passes outside of the diked area on its way to the 1/2 acre diked pond. Provision for tying into this pipe can provide a means of back-up confinement to keep oil out of the river, should the banked area around the tanks be found inadequate. However, in order to keep a spill confined in the smallest area possible, and to keep different types of waste material separated, connection of this drain with the diked area will not be made unless it becomes urgent to do so.
5. The fuel unloading station is located at the upper end of a roadside drainage area of sufficient capacity to contain the contents of one tank truck compartment. The lower end of this drainage area leads into a catch basin through an iron grate, which will be removed and replaced with a leakproof cover whenever loading operations take place.
6. The spill holding pond (Lagoon #1) is lined . The dike is sufficiently high to contain any spills which may overflow into the spill holding pond.
7. A catastrophic tank failure within the tank farm, main plant or railsiding would be directed to the spill holding pond (Lagoon #1) through the site drain network (See Appendix 2).
8. Loaded and unloaded tank trucks are parked on a paved drained area near the railsiding. The drains from this area are connected into the site drainage network and collected in the spill holding pond.

b. Inspections and Testing

- 1. All ponds handling normal process wastes or spills are inspected on a routine basis. Key components of the waste treatment system such as pumps, valves and tanks are inspected at the frequencies called for in the Environmental Inspection Report**
- 2. The Environmental Assistant performing the inspections shall request an inspection checklist from the Environmental Manager. The report is to be made out daily, weekly or monthly based on the required frequency as defined in the Environmental Inspection Program. He shall mark each item on the checklist and return it to the Environmental Manager, who will discuss any necessary action with the responsible individual. The Compliance Manager retains a file copy.**
- 3. Shift Managers perform the daily inspections required by the Environmental Inspection Program on weekends and holidays.**

3.6 Spill Prevention

- a. To protect our environment and work area, the best spill procedure is prevention. In the event of a fuel spill, fuel will be contained in the fuel containment area and will be recovered by pumping it into a tank truck. Small amounts can be absorbed with oil absorbing materials and should be landfilled under existing waste streams established for the site. If waste streams are not in effect the Hazardous Waste Management Program Administrator or alternate should be contacted to determine the best means of disposal. Soaps and or detergents are NOT to be used in cleaning a spill.**
- b. Report leaky valves, fittings, flanges, joints and pumps at once. Follow up to ensure proper repairs are made.**
- c. Stay alert when filling a vessel. Overfilling is our major problem. Monitor the level constantly. If the vessel is equipped with level instruments or alarms, make sure they are turned on and operating properly.**
- d. Check transfer hoses and connections for wear. Repair or replace BEFORE a leak occurs.**
- e. Make certain lines are blown with air, pumps drained, etc., for maintenance and contract workers in your area per the Permit-to-Work and Lockout/tagout Procedures.**
- f. The V.P. of Operations is designated as responsible individual for oil spill prevention and hazardous waste spill prevention. He will ensure that all applicable personnel are trained in the proper operation of equipment to prevent discharges, and shall see that they are instructed in the applicable laws, rules and regulations.**

5.0 NOTIFICATION PROCEDURES AND COMMUNICATIONS

5.1 Emergency Identification

5.1.1 Spill Detection

a. Spill detection and notification is the responsibility of the following people:

1. Receiving personnel, especially during the loading unloading of fuel and chemicals.
2. Personnel responsible for waste treatment operations and performing environmental inspections
3. Production and maintenance personnel, who may observe a spill during plant operations or maintenance.
4. Shift managers during their shift rounds.

5.1.2 Fire/Smoke Detection

The site is equipped with ADT Focus 100 Unit used for Fire/Smoke Detection within the plant production areas, warehouses and electrical switchgear rooms. The system will automatically notify the authorities; however, ADT operators will advise the site personnel of an alarm condition and of their subsequent actions. Site personnel must then be familiar with the system to identify the area of concern and communicate that to site and outside emergency personnel. The system is composed of the following:

- A. Supervisory Monitor
- B. Fire Alarms/Flow Switches
- C. Fire Pump Running/Failure/AC Power Loss Switches
- D. Smoke Detectors

The system operates using a code + location format. During normal operations the unit displays the time. Abnormal or alarm conditions are as follows:

- A. Fire/Smoke
 - 1. F - Code + Location Number
- B. Pump Conditions
 - 1. C - Code + Item Number
- C. System Failures
 - 1. P - Code + Location/Item Number (open wires)
 - 2. J1, J2, J3 (phone trouble)

The supervisor unit which displays abnormal and alarm conditions and allows for system reset is located in Bldg-13, also called the Plant Office, as well as in the Main Office. The other location codes used in conjunction with the alarm conditions indicated above are as follows on the next page:

LOCATION CODE

PHYSICAL LOCATION

F 46 - Switchgear Next to Boiler	Bldg-10
F 47 - Switchgear 198 Plant	Bldg-28
F 48 - Switchgear CCN Drumming Room	Bldg-16
F 49 - Switchgear S-8 Building	Bldg-1
F 50 - S-8 Building	Bldg-1
F 51 - Production Offices	Bldg-8
F 52 - Industrial Plant	Bldgs-14,15,16,17,35,36
F 53 - Laboratory	Bldg-5
F 54 - Maintenance Shop	Bldg-4
C 55 - Pump Running	Pump Conditions (Pump House Bldg-29)
C 56 - Pump Failure	Pump Conditions (Pump House Bldg-29)
C 57 - AC Power Failure	Pump Conditions (Pump House Bldg-29)
F 58 - Office Trailers	Bldgs-6,7
F 59 - Trioxide Warehouse	Back; lower lot
F 60 - Drivers' Trailer	Bldg-9
F 61 - Engineering Trailer	Back of Bldg-4
F 62 - R&D Office Trailer	Bldg-40

5.1.3 Other Emergency Conditions Requiring Action

In addition to spills and fire/smoke detection for notification, the following require notification of the emergency response team:

- a. Serious employee/contractor injury (potential LTA)**
- b. Extensive property damage (over \$5,000)**
- c. Bomb threat**
- d. Site visit by outside agency**
- e. Major process losses (release in excess of RQ - See Appendix 8 only the copies of this plan in the main plant office and Compliance Manager's office will contain this Appendix)**
- f. Transportation accident (DOT reportable accidents, spills)**
- g. Natural Disaster (snow, ice, hurricane, tornado)**
- h. Structure Failure**
- i. Shutdown of the Fire Protection Sprinkler System**

5.2 Internal Notification System

In the event of incidents or situations which meet the criteria for spills, fire/smoke detection, or items from the addition events from above the emergency response team should be contacted by contacting the primary emergency response coordinator and alternates if the primary is not available.

The following procedure should be used:

1. Assess what happened, if there are casualties, what could happen next, and what can be done.
2. Leave the area immediately.
3. Contact your supervisor or shift manager as appropriate.
4. The Supervisor or shift manager should then contact the Emergency Response Coordinator. Use the following information to contact those individuals.

5.2.1 Normal Work Hours (8 - 5 Weekdays)

All Senior Operators, Chief Operators, Shift Managers, Senior Managers and the Switchboard Operator are equipped with portable 2 way radios. These radios are used to notify personnel in the event of a spill, fire or other events.

5.2.2 Off-Hours (other than 8 - 5 Weekdays)

Use the following scheme to contact the coordinator (see Section 2.5 - Key Personnel Contact Numbers for Numbers):

- A. Home Phone
- B. Local Pager Network (ie. 559-**** numbers)
- C. Nationwide Network
- D. Car Phone
- E. Repeat for next alternate.

Contact should only be made by Shift Managers or Senior Management personnel. Others may only be contacted if the above listed individuals are not present or are requested to do so by the above personnel.

5.2.3 Instructions for use of the Pager System

Local Net

- 1) Dial the pager number.
- 2) After the ring you will hear the following: "Please enter your telephone number."
- 3) Enter the phone number where you will be answering the call. If you wish to enter an extension press "*" and the "extension number" after the phone number then "*" and a priority code.

- 1 - Emergency
- 2 - Call back within 2 Hrs.
- 3 - Call back some time today.

Example: 455-5181*250*2

IMPORTANT: You must be using a touch-tone phone!

- 4) Hang up and the phone number you entered will appear on the pager.

Nationwide Net

- 1) Dial 1-800-999-6710.
- 2) A synthesized voice will say, "Please enter the pager ID #."
- 3) Enter the pager ID # from the Telephone/Pager Listing.
- 4) A synthesized voice will say, "Please enter your telephone number."
- 5) Enter your complete number (area code + number), extension and a priority code.
- 6) Hang up and the phone number you entered will appear on the pager.

5.2.4 Instructions for using the emergency telephone/radio interconnect system:

A. Dialing an outside number with the radio phone

- 1. Press the "talk key" - the large button on the side of the radio.**
- 2. While holding the talk key, simultaneously press the * button. on the front of the radio.**
- 3. Release the talk key. This should give you a dial tone.**
- 4. Dial the numbers as you would on any other phone. This should ring the other person's phone.**
- 5. Proceed with the conversation, pressing the talk button when you wish to speak. Remember, the conversation is being heard by everyone in the Plant as well as anyone monitoring our frequency on a scanner.**
- 6. When the conversation is completed, press the talk key and the # button on the keypad at the same time for one second. This should produce 3 rapid beeps which indicate that your call is now disconnected.**

B. Receiving an Outside Call.

- 1. When an outside call comes in, the phone radio will ring like a normal phone. When you hear the ring, simultaneously press the talk button and the * button and then let go. This will connect you with the call.**
- 2. Press the talk key and identify Chemical Specialties and identify yourself to the caller.**
- 3. Proceed with the conversation, pressing the talk button when you wish to speak. Remember, the conversation is being heard by everyone in the Plant as well as anyone monitoring our frequency on a scanner.**
- 4. When the conversation is completed, press the talk key and the # button on the keypad at the same time for one second. This should produce 3 rapid beeps which indicate that your call is now disconnected.**

5.3 External Notification System

If outside assistance is deemed necessary by the Emergency Coordinator, the following should be contacted using the following procedure and External Notification Protocol on the next page.

1. The Emergency Coordinator will instruct the following individuals that an emergency exists:

Weekdays On-Shift.....Receptionist
Weekdays Off-Shift Weekends/Holidays.....Shift Managers

2. These individuals shall obtain a copy of the External Notification Protocol and shall circle each instruction on the protocol as directed by the Emergency Coordinator.
3. The Emergency Coordinator shall indicate who is to be called and what type of emergency is involved. There may be more than one.
4. The individual should repeat each instruction back to the Emergency Coordinator to ensure accuracy.
5. The individual shall then contact the appropriate outside agency and convey the information to them.

NOTE: When outside assistance requested, upon their arrival, situation control transfers to that agency. The Emergency Response Coordinator and the Cabarrus County Emergency Services will then assist in the coordination of personnel and resources.

EXTERNAL NOTIFICATION PROTOCOL

WHO TO CALL:

FIRE DEPARTMENT.....	Call 911
RESCUE.....	Call 911
POLICE.....	Call 911
HAZMAT.....	Call 911
QUICK CARE.....	Call 783-1645
EMERGENCY ROOM.....	Call 783-1617

WHAT TO SAY: This is: **Chemical Specialties, Inc.**
We have the following emergency(ies) on site:

FIRE is present in _____
The fire is (is not) under control at this time.
Site personnel are (are not) fighting the fire at this time.
The sprinkler system is (is not) operating at this time.
The fire presents an (no) added hazard because: _____

INJURY

Number of Individuals: _____
Type of Injury(ies): _____
The condition of the Injured is (are): _____
The injured are located: _____
We are (are not) requesting transportation of the injured.
The injured has (has not) been decontaminated.
MSDS of the material is (is not) available:

SPILL/RELEASE of: _____
The location of the spill/release is: _____
The quantity of the spill/release is: _____
The hazard related with the material are: _____
MSDS of the material is (is not) available:
The spill/release is (is not) threatening (air)(water)(ground water).
The spill/release is (is not) contained.
An evacuation of the (site) _____ neighborhood is (is not) required.

OTHER _____

The level of involvement and specific areas of responsibility will be determined at the time of the incident. The following is a guide to be utilized in the selection of the agency to be contacted.

a. **POLICE, FIRE OR EMERGENCY MEDICAL**

In the event that police, fire, and or emergency medical assistance is needed, CABARRUS COUNTY EMERGENCY SERVICES (CCES) is to be contacted at 911. Their switchboard operator will contact the appropriate service needed and dispatch them to our site. CCES has a copy of the contingency plan. The Harrisburg Volunteer Fire Department is familiar with the facility through a joint training session held at the HVFD training center and at the Chemical Specialties, Inc. site.

b. **MINOR INJURIES**

CMH Quick Care in Concord (704-783-1645) has been designated for treatment of this company's employees for minor injuries. The doctors at this clinic have acquired specialized knowledge of the effects of the chemicals handled at this facility and have acquired substantial experience in the treatment of problems we may experience. If an employee needs treatment for more serious injuries, they are to be sent to the Cabarrus Memorial Hospital emergency room (704-783-1617). Hospital personnel shall be advised of the properties of the materials handled at the facility through the CMH Quick Care physicians who as indicated above are familiar with the chemicals handled. CMH Quick Care is associated with the Cabarrus Memorial Hospital.

c. **SERIOUS INJURIES & FATALITIES**

For extremely serious injuries the Harrisburg Rescue should be contacted through the CCES at 911. Within 8 hours after the death of any employee from a work related incident or the in-patient hospitalization of three or more employees as a result of a work-related incident, report the event by telephone to the Area Office of OSHA. This applies also to a fatality or multiple hospitalization occurring within 30 days of an incident.

d. **HAZMAT ASSISTANCE**

In the event that the Emergency Coordinator makes the decision that a hazardous material spill cannot be handled by plant personnel, he will contact CCES at 911 and request for HAZMAT assistance. CCES will dispatch the Mecklenburg County HAZMAT team to the site.

e. **CLEAN-UP CONTRACTOR**

If the Emergency Coordinator determines that spill remediation cannot be performed by plant personnel, Four Seasons Environmental is contracted by CSI to perform such operations. The Four Seasons contact is Doug Wilson or Mark Hedrick and they can be reached at 527-1293.

f. **EVACUATION REQUIRED**

If the Emergency Coordinator determines that the evacuation of local areas may be advisable, he/she must immediately contact the CCES at 911.

5.4 National/State Notification System

If a spill leaves MRC property or if a spill or air release in excess of the compounds RQ, the acting Emergency Coordinator shall notify each of the following agencies **WITHIN 1 HOUR OF THE INCIDENT** with the information required in Section 5.5:

- a. Cabarrus County Emergency Services
Ben Mabrey, Sr., Director
792-0421
788-3108 (Dispatch)
- b. N.C. Emergency Response Number
1-919-733-5291 (Hours 8:00am-5:00pm)
1-919-733-3861 (24 hr number)
1-704-633-1699 (Mooresville Office)
- c. U.S. Environmental Protection Agency
1-404-881-4062 (24hr EPA Region IV)
1-404-881-4096 (business hrs.)
- d. National Response Center
1-800-424-8802 (24hr number)

5.5 Incident Reporting Requirements

The following information must be supplied when reporting an incident to the National/State contacts listed in Section 5.4 :

- a. Name and telephone number of reporter.

Name: _____ Phone: (704) 455-5181

- b. Name and address of facility.

Chemical Specialties, Inc.
5910 Pharr Mill Road
Harrisburg, North Carolina 28075

- c. Time and type of incident (e.g., release, fire).

- d. Name and quantity of material(s) involved, to the extent known.

- e. The extent of injuries, if any.

- f. The possible hazards to human health, or the environment, outside the facility.

The following information must be entered in the operation records of the facility the following information, and submit it in written form to the U.S. Environmental Protection Agency Region IV within fifteen (15) days of the incident:

- a. Name, address and telephone number of the owner or operator.
- b. Name, address and telephone number of the facility.
- c. Date, time and type of incident (e.g., release, fire).
- d. Name and quantity of material(s) involved.
- e. The extent of injuries, if any.
- f. An assessment of actual or potential hazards to human health, or the environment where this is applicable.
- g. Estimated quantity and disposal of recovered material that resulted from the incident.

5.6 Media / Neighborhood Notification System

During emergency situations the Emergency Response organization Public Relations Officer will coordinate all media contacts. In most cases, these individuals will submit a written statement in conjunction with the Cabarrus County Emergency Center following an incident. Neighborhood contacts or concerns following a situation or other reason will be handled by Syl Bartos or David Moon in that order.

All incidents which might affect the neighborhood are also reviewed with the Community Advisory Panel (CAP) which is comprised of 17 residents and 4-6 site employees. The minutes from this meeting are distributed to all residents of the River Hills community

5.7 Notification Prior to Resuming Operations

The Emergency Coordinator must ensure that the following are performed prior to resuming operations in the affected areas of the facility:

- a. No wastes or materials that are incompatible with the released material are allowed to enter the area until cleanup procedures are completed.
- b. All emergency equipment utilized in the cleanup procedures are decontaminated and ensured fit for use in accordance with Section 11.9 of this plan.
- c. The Emergency Coordinator must notify the National/State contacts listed in Section 5.4 that the facility has performed the above steps and that the facility is ready to resume operations.

6.0 EMERGENCY EQUIPMENT AND FACILITIES

6.1 Communications

Emergency equipment is strategically placed throughout the site to respond to two types of emergencies; chemical spills and fires. All Senior Operators, Chief Operators, Shift Managers, Senior Managers and the Switchboard Operator are equipped with portable 2 way radios. These radios are used to notify personnel in the event of a spill, fire or other events.

6.2 Spill Response and Cleanup Equipment

Spill response and cleanup equipment is inspected per the schedule presented in the Environmental Inspection Report.

- a. Eyewash/safety showers are located in 61 various locations around the plant. Appendix 3 contains a coded map and corresponding key to all stations on the plant site. Women on site requiring safety shower access should immediately utilize a nearby shower to remove the bulk of the chemical. As soon as reasonably possible, she should be quickly moved to either the 198, industrial or maintenance showers by another woman on site. Here she should remove all affected clothing and shower per normal procedures.
- b. SCBA gear is placed in the Confined Space Entry Rescue Box. Located in the Main Warehouse, Bldg. 15. The location is also contained on the map in Appendix 3.
- c. A John Deere tractor is garaged at the maintenance shop and can be operated by personnel trained in its use. It is inspected and maintained by an outside firm on a monthly basis.
- d. Hand implements (shovels, rakes, & buckets) are stored in the Back Warehouse - Bldg 17 and the Maintenance Shop.
- e. Approved waste drums and liners are located in the Back Warehouse - Bldg 17.
- f. Sodium Bisulfite and Lime for spill neutralization is located in the Back Warehouse - Bldg 17.
- g. Bags of absorbent, used to solidify spills, are located in the Back Warehouse - Bldg 17.

6.3 Fire Response Equipment

- a. Hose stations and fire hydrants are located in 5 areas around the site. Appendix 4 is a site map and key showing the location of each. Detailed information on the mechanics of the pumping station and water storage are explained in Appendix 5. Hydrant are inspected and lubricated annually by an outside firm.
- b. Hand held fire extinguishers are stationed at 97 various locations around the site. The location map and key is in Appendix 4 along with a list describing the type of each fire extinguisher. Fire extinguishers are inspected monthly by an outside firm.
- c. A plant sprinkler system is in place in six buildings, each building having a separate header. If header pressure is lost, a horn will sound in the main plant office, alerting personnel of fire. Flow in the plant sprinkler system is also detected by the ADT system which alerts the local fire department. This ADT system is inspected monthly. The details of the water storage and backup pumping system are explained in Appendix 5.

6.4 Toxic Gas Detection

- a. A portable toxic gas detection device (an MDA monitor) is available for continuous toxic gas detection and PEL alarming. The device is located in the cabinet inside the Environmental Assistant's office. Detectable gases are as follows:

HCl - Hydrochloric acid
NO_x - Oxides of Nitrogen
NH₃ - Ammonia
HNO₃ - Nitric acid
Cl₂ - Chlorine

- b. Drager type toxic gas monitoring equipment are also available in the cabinet inside the Environmental Assistant's office. Detectable gases are as follows:

HCl - Hydrochloric acid
NO_x - Oxides of Nitrogen
NH₃ - Ammonia
HNO₃ - Nitric acid
Cl₂ - Chlorine
Acetic/Formic(Propionic) acids

6.5 Decontamination Equipment

- a. Equipment decontamination is performed using water pressure washers available in the Maintenance Shop or hoses with plant water.**
- b. Personnel decontamination is performed using safety showers as indicated in Section 6.2a.**

8.0 TRAINING REQUIREMENTS AND DRILLS

Below is a summary of the training and instruction conducted with plant personnel:

- a. All personnel are oriented to this contingency plan as outlined on the Contingency Plan Training Syllabus. A separate syllabus is generated for each training section and will be found with the training records. This training is reviewed annually.
- b. All personnel involved in the management of hazardous waste are trained in accordance with the Hazardous Waste Management Program.
- c. All plant supervision, maintenance, and operating personnel are instructed on the prevention, containment, and clean-up of chemical spills.

10.0 **PLAN UPDATES**

This plan is reviewed by management personnel on an annual basis and or when the plan is amended or changed. See Appendix 7 for a list of revisions and the revision dates.

11.0 EMERGENCY RESPONSE PROCEDURES

11.1 Spill Response Checklist

- _____ Evacuate all unnecessary individuals from the area, once machinery is shutdown per emergency shutdown procedures.
- _____ In the event of a site-wide or community evacuation follow evacuations procedures in Section 11.6 & 11.7.
- _____ Verify the identity, amount and hazards of the material (refer to MSDS).
- _____ Notify appropriate Site Response Teams per Section 2.4.
- _____ Utilize specific Spill Clean Up Procedures when appropriate.
(See Sections 11.2, 11.3, 11.4)
- _____ Ensure that the response team is wearing all appropriate PPE.
- _____ Contain the spill and keep from entering drains, etc.
- _____ Neutralize the spill if applicable.
- _____ Determine the need for outside assistance such as HVFD, police, contract cleanup or Hazmat. See External Notification Protocol in Section 5.3.
(Once HVFD or Hazmat arrives, site control is relinquished to them).
- _____ Verify if the quantity is a Reportable Quantity per Appendix 8.
- _____ Contact appropriate agencies per Section 5.4 and 5.5.
- _____ Absorb the spill and deposit in appropriate, labeled containers.
- _____ Clean-up the spill area.
- _____ Decontaminate all equipment and ensure fit for use per Section 11.9.
- _____ Signal the end of the emergency.

11.2 Wood Products Area Spill Cleanup

When a spill occurs, proceed with instructions below:

- a. Protect yourself against chemical contact by using proper protective equipment.
- b. Contain the spill to avoid runoff to Plant drains or to the environment.
- c. Neutralize uncontained chrome spills (CCA, Chromic Acid, Bichromate, or Waste Water) by first covering with sodium bisulfite to reduce the chrome. The liquid will change color from orange-yellow to green. Then add lime to the spill to neutralize the liquid. The color will change from a clear green to a heavy green sludge.
- d. Contained chrome spills are washed to sumps in the Wood Products Area only.
- e. Neutralize 198 spills with lime only.
- f. Contained CCA, chromic acid and 198 spills are washed to sumps in the Wood Products Area only.
- g. Add sufficient absorbent to absorb the liquid.
- h. Transfer the sludge to an approved hazardous waste container for disposal.
- i. Do not wash uncontained spills, treated or untreated, down the drain.
- j. Report all leaks and spills to the supervisor.
- k. MSDS's are available in locations specified in Section 3.3e of this Contingency Plan.

11.3 Industrial Products Area Spill Cleanup

THIS DOES NOT APPLY TO SPILLS OF HYDROGEN PEROXIDE. For a spill of HYDROGEN PEROXIDE consult the Hydrogen Peroxide Production Procedures

When a spill occurs, proceed with instructions below:

- a. Protect yourself against chemical contact by wearing proper protective equipment. Information on personal protective equipment for all chemicals on site can be found in the Material Safety Data Sheets (MSDS's). MSDS's are available in locations specified in Section 3.3e of this Contingency Plan.
- b. Contain the spill to avoid runoff to Plant drains or to the environment.
- c. If any of the material has already spilled to a Plant drain, allow it to flow to the Lined Lagoon. If the spill occurred inside the Production Building and is already in the Waste Treatment Sump area, use bag lime if needed to protect the system from a pH below 7.0. Contact the Environmental Assistant, the Environmental Manager or the Compliance Manager for further instructions.
- d. If any portion of the chemical spilled can be safely reused as product or raw material, it should be. Try to collect the spill in an empty tank which is compatible with the chemical. (For example, you would not want to put a hydrochloric acid spill in a mild steel tank.)
- e. If the material cannot be reused, use lime to neutralize acids and absorbent to solidify liquids. Then collect the resulting material in a proper container (see the MSDS for container guidelines, or ask someone in the Compliance Department)

DO NOT FLUSH SPILLS TO WASTE TREATMENT UNLESS DIRECTED TO DO SO BY A MANAGER.

11.4 Hazardous Waste Spills

When a spill of **SOLID** Hazardous Waste occurs, proceed with instructions below:

- a. Isolate the area from other plant personnel.
- b. Remove enough boxes of waste material to gain access to the spilled material.
- c. Be sure that the boxes being removed are not contaminated.
- d. Clean-up the spilled material with a dust pan and broom and dispose of the material in a hazardous waste box. Be certain to wear a full-face respirator and approved HEPA cartridge filter during this activity.
- e. Spills of hazardous waste should be documented using the Accident/Incident Form and the Box Number from the hazardous waste box should be indicated on the accident report.

When a spill of **LIQUID** Hazardous Waste occurs, proceed with instructions below:

- a. Contain the spill to avoid runoff to drains
- b. Neutralize uncontained chrome spills (CCA, Chromic Acid, Bichromate, or Waste Water) by first covering with sodium bisulfite to reduce the chrome. The liquid will change color from orange-yellow to green. Then add lime to the spill to neutralize the liquid. The color will change from a clear green to a heavy green sludge.
- c. Contained chrome spills are washed to sumps in the Wood Products Area only.
- d. Neutralize 198 spills with lime only.
- e. Contained CCA, chromic acid and 198 spills are washed to sumps.
- f. Add sufficient absorbent to absorb the liquid.
- g. Transfer the sludge to an approved hazardous waste container for disposal.
- h. Do not wash uncontained spills, treated or untreated, down the drain.

11.5 Release Response Checklist (Non-Routine Air Emission).

- Evacuate all unnecessary individuals from the area, once machinery is shutdown per emergency shutdown procedures.
- In the event of a site-wide or community evacuation follow evacuations procedures in Section 11.6 & 11.7.
- Verify the identity, amount and hazards of the material (refer to MSDS).
- Notify appropriate Site Response Teams per Section 2.4.
- Ensure that the response team is wearing all appropriate PPE.
- Stop the release.
- Determine the need for outside assistance such as HVFD, police, contract cleanup or Hazmat. See External Notification Protocol in Section 5.3.

(Once HVFD or Hazmat arrives, site control is relinquished to them).
- Verify if the quantity is a Reportable Quantity per Appendix 8.
- Contact appropriate agencies per Section 5.4 and 5.5.
- Signal the end of the emergency.

11.6 Evacuation Checklist

- _____ Determine the wind direction the potential path of the release or vapor cloud.
- _____ Determine the best assembly point from that information.
(PRIMARY - Near Old Entrance, Across from the Parking Lot)
(SECONDARY - Behind Maintenance Shop)
- _____ Contact the Receptionist/Shift Manager and inform him/her that an evacuation is being initiated.
- _____ Indicate if this a Mock Evacuation or an Actual Evacuation.
- _____ Indicate to the receptionist/shift manager which assembly point is to be used and have him/her repeat it back.
- _____ Tell them to activate the phone intercom system or radio and notify all site personnel.
- _____ Begin transmitting the evacuation message to other site personnel via radio as follows:

ATTENTION! ATTENTION!
THE SITE EMERGENCY RESPONSE COORDINATOR HAS ISSUED A
SITE-WIDE
(MOCK) EVACUATION.
(give reason for evacuation and wind direction)
EVERYONE PLEASE PROCEED TO THE
(HIGHWAY 49 PLANT GATE / REAR OF MAINTENANCE SHOP)
ASSEMBLY POINT.
(if it is a mock emergency drill skip the following)
THIS IS NOT A TEST. THIS IS AN ACTUAL EVACUATION!
(repeat the above once more)

- _____ At the assembly location begin to acquire head counts as follows:

_____ Wood	Missing: _____
_____ Industrial	Missing: _____
_____ Maintenance/Contractors	Missing: _____
_____ Lab/R&D	Missing: _____
_____ Administration/Visitors	Missing: _____
- _____ Communicate the headcount to HVFD and if any individuals are missing and where they maybe.
- _____ Determine if evacuation further off-site is required and where to go.

11.7 Emergency Evacuation Procedures (See Appendix 6)

If a site evacuation is deemed necessary by the Emergency Coordinator the following procedure should be utilized along with the Evacuation Protocol on the next page.

1. The Emergency Coordinator will instruct the following individuals that an evacuation is required:

Weekdays On-Shift.....Receptionist
Weekdays Off-Shift Weekends/Holidays.....Shift Manager

2. The receptionist shall obtain a copy of the appropriate Evacuation Protocol and shall circle each instruction on the protocol as directed by the Emergency Coordinator.
3. The Emergency Coordinator shall indicate which assembly point to proceed to.
4. The receptionist should repeat the instruction back to the Emergency Coordinator to ensure accuracy.
5. The individual shall then follow the procedure on the Evacuation Protocol.
6. The Shift Manager on off-shift, weekends or holidays duty may use the Evacuation Checklist (Section 11.6) in lieu of the Evacuation Protocol. They shall however, proceed through the checklist with the Emergency Response Coordinator
7. The payroll department shall generate an "On Premises Report" and distribute to the managers at the evacuation site. This report will assist them in performing the headcount.

**EVACUATION PROTOCOL
RECEPTIONIST/SHIFT MANAGERS**

1. YOU WILL BE CONTACTED BY THE EMERGENCY RESPONSE COORDINATOR THAT AN EVACUATION IS REQUIRED.
2. THE EMERGENCY RESPONSE COORDINATOR WILL INDICATE WHAT THE REASON FOR THE EVACUATION IS, THE RELATIVE WIND DIRECTION AND WHICH ASSEMBLY POINT IS TO BE USED (ie. PRIMARY OR SECONDARY).
3. REPEAT BACK THE INFORMATION TO THE EMERGENCY RESPONSE COORDINATOR.
4. CONTACT ALL EMPLOYEES BY ACTIVATING THE TELEPHONE SYSTEM INTERCOM AND THE BASE RADIO.
5. INFORM ALL EMPLOYEES BY ANNOUNCING THE FOLLOWING:

ATTENTION! ATTENTION!
**THE SITE EMERGENCY RESPONSE COORDINATOR HAS ISSUED A
SITE-WIDE
(MOCK) EVACUATION.**
(give reason for evacuation and wind direction)
**EVERYONE PLEASE PROCEED TO THE
(HIGHWAY 49 PLANT GATE / REAR OF MAINTENANCE SHOP)
ASSEMBLY POINT.**
(if it is a mock emergency drill skip the following)
THIS IS NOT A TEST. THIS IS AN ACTUAL EVACUATION!
(repeat the above once more)

6. GET THE FOLLOWING:

EVACUATION HEADCOUNT SHEET or SIGN-IN SHEETS
VISITOR LOG (if appropriate)
PENS
7. LEAVE THE AREA AND PROCEED TO THE ASSEMBLY POINT.
8. AT THE ASSEMBLY LOCATION GIVE THE APPROPRIATE SUPERVISORS THE ABOVE INDICATED ITEMS.
9. SHIFT MANAGERS ARE CONSIDERED TO BE THE ACTING AUTHORITY ON SITE UNTIL OTHER SUPERVISORS WOULD ARRIVE AND THUS

The following procedures should be followed by site personnel when informed of a site evacuation.

- a. When informed via hand held radio or through the telephone intercom system, all personnel are to proceed to either the primary or secondary location on foot only. Proceed in an orderly fashion as quickly as possible. **DO NOT RUN!**
- b. Plant Operations personnel should evacuate only after performing appropriate shutdown procedures.
- c. The Primary Assembly Location is the grassy area across from the employee parking lot near the Old Entrance .
- d. The Secondary Assembly Location is behind the maintenance shop.
- e. The Assembly Location will be determined by taking into consideration wind direction and emergency conditions.
- f. Personnel should take an appropriate route to the assembly location. This route should be chosen to avoid visible smoke, visible gas clouds or in the case of invisible vapor avoid area with a discernible odor.
- g. Employees should locate their supervisors at the assembly area and report in when their name is called.
- h. The receptionist will bring the headcount sheet to the Assembly Location and Supervisors will conduct a headcount and report any missing persons to the Emergency Coordinator. Supervisors will control the Assembly Location.
- i. If it becomes necessary to leave plant property, as determined by the Emergency Response Coordinator, you will be advised as to where to assemble. Exceptional care should be taken in both crossing Pharr Mill Road and/or the railroad tracks at the old entrance. Supervisors are responsible for their employees.

11.8 Fire Fighting Procedures

- a. Notify a supervisor or other employee prior to attempting to fight the fire.**
- b. The supervisor/shift supervisor/security guard should contact the emergency response team immediately.**
- c. Only attempt to fight fires that can be easily controlled by the use of a fire extinguisher.**
- d. Use the proper fire extinguisher for the type of fire.**
- e. Fires which cannot be extinguished using a fire extinguisher should be handled by the Site Early Response Team for Fires, see Section 2.4. These individuals are trained volunteer fire fighters or have on-the-job training in fire fighting. The Emergency Response Coordinator will dispatch the Site Early Response Team.**
- f. Fires that cannot be extinguished using conventional fire extinguishers and require the response of the Site Early Response Team require that the Harrisburg Volunteer Fire Department be contacted through the CCES. The Emergency Response Coordinator will contact the receptionist/shift supervisor/security and request the HVFD using the External Notification Protocol outlined in Section 5.3.**

11.9 Equipment Decontamination and Fit for Use Procedures

a. RCRA Hazardous Waste Contaminated Equipment

1. Place the contaminated equipment in the concrete loading area in driveway #3.
2. Small pieces of equipment can be rinsed off using plant water supplied through a hose.
3. Large pieces of equipment shall be decontaminated using pressure wash equipment located in the Maintenance Shop and 198 Plant.
4. Rinsate samples should be taken and analyzed by TCLP method for the constituents present in the clean-up activity. These records should be maintained with the incident logs, typically the Accident/Incident form.

b. RCRA NON-Hazardous Waste Contaminated Equipment

1. Place the equipment in the main driveway near the waste treatment plant.
2. Small pieces of equipment can be cleaned using plant water supplied through a hose.
3. Large pieces of equipment shall be cleaned using pressure wash equipment located in the Maintenance Shop and 198 Plant.

c. Fit for Use

1. All equipment utilized in a spill response, following decontamination, will be inspected to ensure that it is fit to be used as intended.

11.10 Personnel / Clothing Decontamination Procedures

- a. Personnel and clothing decontamination is performed using safety showers as indicated in Section 6.2a.**

11.11 Fire System Impairment Procedures

This procedure **MUST** be followed when ever any portion of the fire sprinkler system is shutdown for either testing, preventative maintenance, repair or in an emergency. This procedure applies to all components of the fire protection sprinkler system including but not limited to underground services, pumps, fire service control valves and the sprinkler headers.

- a. Immediately contact the Emergency Response Coordinator or the secondary coordinator.
- b. The following must then be contacted and informed that the fire protection sprinkler system will be impaired, in what areas of the plant, and for what duration:
 1. CCES - 788-3108
Non-Emergency Dispatcher
 2. Ben Mabrey, Sr., Director
792-0421
 3. London Guarantee & Accident - (908) 580-0800
after hours 1-800-949-4646.
 4. ADT - 376-8535 (specify the expected code location (see Section 5.1.2 and indicate the system number from the ADT supervisor inside panel door.)
 5. Building / Site Occupants
- c. A tag is then affixed to the sprinkler system/ header to indicate to the occupants that the system is out of operation.
- d. Complete a Impaired Fire Protection Form and Fax to London Guarantee & Accident at (908) 580-9726.
- e. Once the system is placed back on-line contact the above to indicated that the system is now operational.
- f. Remove any and all impairment tags.

11.12 First Aid Procedures

This procedure MUST be followed when ever there has been an injury or illness on site.

- 1. Contact a member of the First Aid/CPR team. Sheets of the members are located throughout the plant.**
- 2. The First Aid/CPR team member will then administer any appropriate first aid/CPR.**
- 3. The First Aid/CPR team member will determine if outside assistance is needed and communicate that need to the Emergency Response Coordinator.**
- 4. The Emergency Response Coordinator will contact the appropriate personnel per the External Notification procedures outlined in Section 5.3.**
- 5. The First Aid/CPR team member is responsible for any and all cleanup of the area per the Bloodborne Pathogens Program.**

11.13.1 Cubic Yard Box / Drum 90-Day Storage Area Evacuation Procedures

This procedure **MUST** be followed when ever there is a situation that warrants the evacuation of the 90-day storage area. (See the 90-day Storage Evacuation Plan included in Appendix 6 - Evacuation Routes.)

1. The primary evacuation route from the 90-day storage area is to proceed north through the warehouses to the Breakroom and contact the Emergency Response Coordinator.
2. The secondary evacuation route from the 90-day storage area is to proceed through the CCA Building exit door then to proceed south to the 198 Plant Breakroom and contact the Emergency Response Coordinator.

11.13.2 Roll-off Dumpster 90-Day Storage Area Evacuation Procedures

1. Follow routes previously defined for Site evacuations.

13.0 DOCUMENTATION

- a. A copy of this plan shall be distributed according to the list presented in Appendix 9.
- b. In the event that a spill leaves MRC property, the Accident/Incident Investigation form and any additional documentation shall be completed and submitted to the U.S. EPA.
- c. Any and all events meeting criteria established in this plan must be investigated and an Accident/Incident form generated. (See Accident Incident Investigation Procedures).
- d. Since the facility is a RCRA Part A/B Permitted Facility, copies of the Contingency Plan are an integral part of our Part A/B Permit. Thus, when changes are made to the plan a copy of the plan and revisions made should be forwarded to:

Mr. James Carter, Chief
Hazardous Waste Section
NC DEHNR
P.O. Box 27687
Raleigh, NC 27611

personnel in the permitting office will then advise as to the level of Modification the changes require and copies are then sent to the individuals indicated in Appendix 10.

- e. Copies of the return receipts for distributed copies of the Contingency Plan are presented in Appendix 11 for each revision. This Appendix is only
- f. The arrangements with various agencies and institutions, noted in this plan, will be confirmed via certified mail with the next update to this plan.

APPENDIX - 1A

General Site Oil and Hazardous Waste Locations

APPENDIX - 1B

Specific Oil and Hazardous Waste Locations

ACCUMULATION
and
SATELLITE ACCUMULATION AREAS

The building designations can be cross-referenced to Bldg numbers from any of the attached site drawings (e.g. FIRE 2, Appendix 1B, etc), in the Contingency Plan appendices.

- | | |
|--|-------------------------------|
| a. Manual Arsenic Trioxide Unloading Area | Bldg 126 |
| b. Arsenic Acid Rotary Vacuum Filter Room
includes filter and 55-gallon collection drum. | Bldg 23 |
| c. Copper Nitrate Production Area | Near R-501 |
| d. Two in the CCA Production Area
1-Lower Level, near R-91 & 92
2-Mezzanine, near R-91 & 92 | |
| e. All 6 QC Laboratories, except the Environmental Lab | Bldg 5 |
| f. R&D Laboratory | Bldg 5
Basement |
| g. R&D Treatment Cylinder Area | Bldg 5
Basement |
| h. Outside Bldg 5 Extension (two 55 gal containers) | Bldg 5
Basement |
| i. Maintenance Shop
CCA Contaminated Rubbish/Debris in Shop Area
Spent Paint Thinner in Truck Bay
Paint Rags in Truck Bay | Bldg 4 |
| j. 198 Control Room (Blue Room) | Bldg 31 |
| k. 198 QC Lab | Downstairs
from
Bldg 31 |
| l. 198 Breakroom | Outside
Bldg 22 |
| m. Bulk Bag Facility
includes machine and collection drum. | Bldg 36 |

n. Dirty Side of the Showers

Bldg 216

o. Under Loading Mezzanine in Driveway #3

Drive #3

APPENDIX - 2

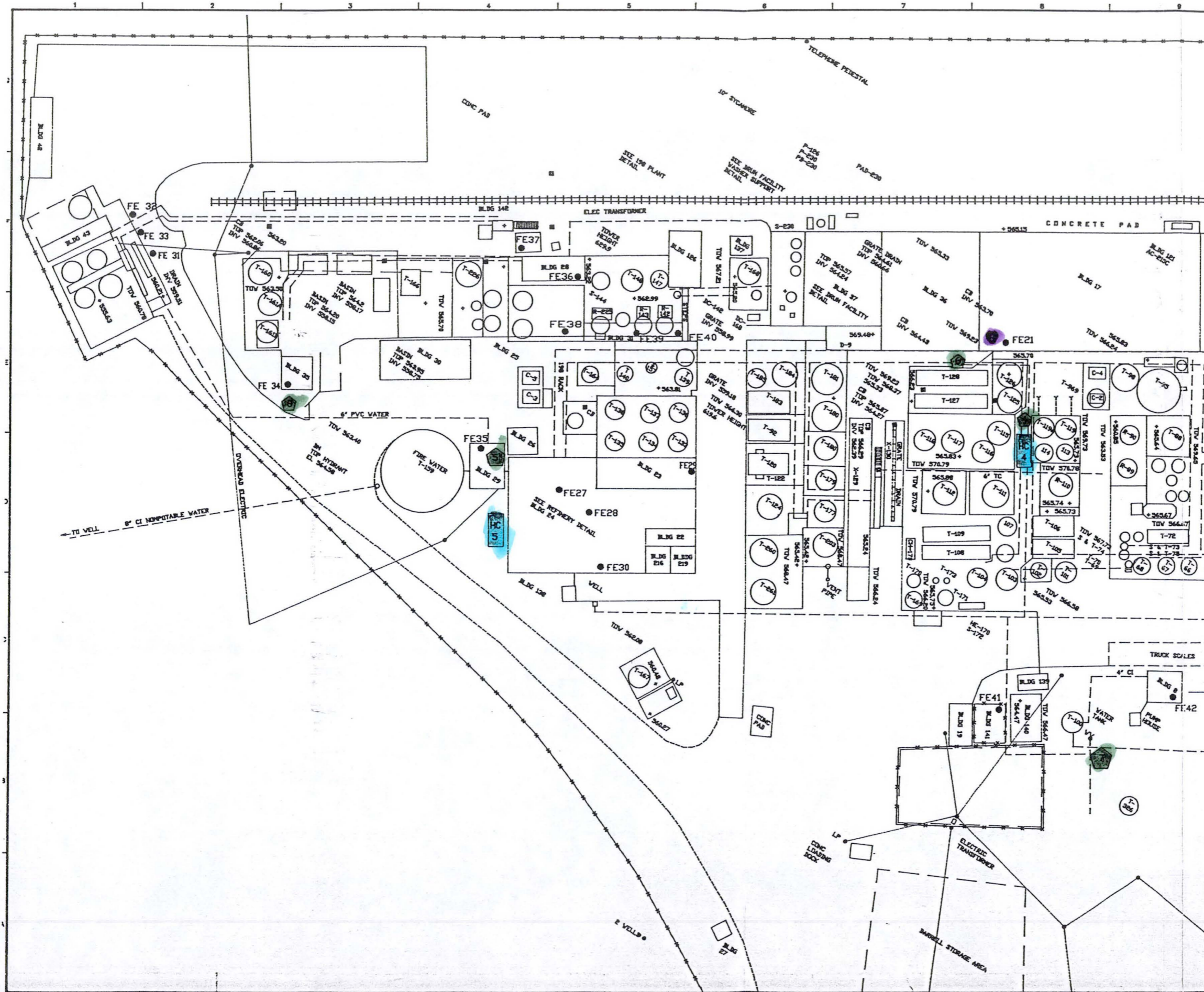
Drain Network





APPENDIX - 3

Eye Wash and Safety Showers Locations

APPENDIX - 4

Fire Equipment Locations



- NOTES:
-  FIRE HYDRANTS
 -  HOSE CABINETS
 -  FIRE EXTINGUISHERS
 -  RISERS

REV. DATE	DESCRIPTION
7/19/92	
SCALE	
CAD FILE NO.	
CAD DRAWN / PLOT SCALE	
Chemical Specialties, Inc. Mineral R & D Corp. HARRISBURG, NORTH CAROLINA	
DWG. NO.	REV.
FIRE 2	

Extinguisher Number	Extinguisher Type	Extinguisher Size	Extinguisher Location
1	CO2	15	SHOP DOORWAY
2	ABC	10	SHOP BACK WALL
3	ABC	20	SPARE
4	ABC	5	SPARE
5	ABC	2.5	SPARE
6	ABC	10	SPARE
7	ABC	10	SPARE
8	ABC	10	DOORWAY AT WELDING AREA
9	ABC	23	LIFT TRUCK
10	CO2	10	BACK DOOR AT WELDING AREA
11	ABC	5	WELDING TRUCK
12	ABC	10	ENGINEERING HALLWAY
13	ABC	10	ENGINEERING CONFERENCE ROOM
14	ABC	10	R & D HALLWAY
15	HALON	5	R & D HALLWAY
16	ABC	10	R & D LIBRARY
17	ABC	20	OUTSIDE R & D BASEMENT
18	ABC	10	TREATING ROOM DOORWAY
19	ABC	10	DOORWAY WOOD SHOP
20	ABC	10	TREATING AREA UPSTAIRS
21	PW	2.5	TREATING AREA
22	CO2	10	ANALYTICAL LAB
23	CO2	15	CHEMICAL STORAGE ROOM
24	ABC	10	LAB
25	ABC	10	LAB (DOOR EXIT)
26	ABC	10	LAB
27	CO2	10	ELECTRICAL PANEL
28	CO2	10	INSTRUMENT ROOM
29	HALON	9	LAB OFFICE AREA
30	CO2	10	LAB # 3
31	CO2	10	LAB # 2
32	ABC	6	LAB # 1
33	CO2	10	LAB HALLWAY
34	CO2	10	BOILER ROOM
35	CO2	10	ELECTRICAL ROOM
36	ABC	2.5	LIFT # 5
37	ABC	10	BULK STORAGE
38	ABC	10	BULK STORAGE
39	ABC	10	BULK STORAGE
40	ABC	10	BULK STORAGE
41	ABC	20	TRUCK DUMP AREA SCALE
42	ABC	2.5	LIFT TRUCK
43	CO2	10	UPSTAIRS AA WASTE
44	ABC	20	LAB AA WASTE
45	ABC	20	WALL AA WASTE
46	CO2	10	UPSTAIRS AA WASTE
47	ABC	10	ROTOWHEEL ROOM
48	ABC	20	CATWALK

Extinguisher Number	Extinguisher Type	Extinguisher Size	Extinguisher Location
49	CO2	10	ELECTRICAL ROOM
50	ABC	5	COMPRESSOR ROOM
51	ABC	20	COMPRESSOR ROOM
52	CO2	10	UPSTAIRS CATWALK
53	CO2	10	UPSTAIRS CATWALK
54	ABC	20	PEROXIDE AREA
55	HALON	2.5	PEROXIDE AREA OFFICE
56	ABC	10	PEROXIDE STORAGE AREA
57	CO2	10	PUMP STATION
58	ABC	5	WELDER
59	ABC	10	BATTERY CHARGER
60	ABC	10	
61	ABC	2.5	LIFT TRUCK
62	CO2	10	BAG STORAGE
63	ABC	10	DOORWAY STORAGE AREA
64	ABC	20	WALL OUTSIDE
65	ABC	10	UPSTAIRS STORAGE
66	CO2	10	WALL DOORWAY STORAGE AREA
67	CO2	10	DOORWAY STORAGE
68	CO2	10	DOORWAY STORAGE
69	ABC	2.5	LIFT TRUCK # 2
70	CO2	10	DOORWAY ELECTRICAL PANEL
71	CO2	10	DOORWAY ELECTRICAL PANEL
72	CO2	10	DOORWAY INDUSTRIAL
73	ABC	20	DOORWAY INDUSTRIAL
74	ABC	20	DOORWAY INDUSTRIAL
75	CO2	10	ELECTRICAL ROOM
76	ABC	5	LOBBY BOTTOM OFFICE
77	ABC	5	BOTTOM OFFICE
78	ABC	10	HALLWAY OFFICE
79	ABC	10	HALLWAY OFFICE
80	HALON	9	COPY ROOM
81	ABC	10	HALLWAY LOBBY
82	ABC	10	HALLWAY OFFICE
83	ABC	5	OFFICE
84	ABC	10	OFFICE - MEN'S ROOM
85	CO2	10	WAREHOUSE DOOR
86	PW	2.5	WAREHOUSE DOOR
87	CO2	10	WAREHOUSE ELECTRICAL ROOM
88	ABC	10	WAREHOUSE ELECTRICAL OFFICE
89	PW	2.5	WAREHOUSE ELECTRICAL STORAGE
90	CO2	10	WAREHOUSE DOCK DOOR
91	ABC	2.5	TRACKMOBILE
92	ABC	2.5	TRACKMOBILE
93	ABC	10	NEW OFFICE HALLWAY
94	ABC	10	NEW OFFICE HALLWAY BACK DOOR
95	ABC	2.5	LIFT TRUCK (CAT)

APPENDIX - 5

Sprinkler System Operations

SPRINKLER SYSTEM OPERATIONS

There are five yard hydrants located around the premises which have double 2 1/2" outlets and can be used with 2 1/2" and 1 1/2" hose and nozzles to help fight large fires from inside and outside the buildings. Hose cabinets located adjacent to the hydrants contain equipment including 200' of 2 1/2" hose, 200' of 1 1/2" hose, nozzles, wrenches and reducers. Interior 1 1/2" hose lines are rack mounted and spaced throughout the buildings to give over-lapping coverage.

A 300,000 gallon fire water tank is located in the southwest quadrant of the Site. This water can be used by the local fire department to fight fire in areas not protected by sprinkler systems. The water for this tank can come either or both of two sources:

1. A 2" County water line with a float valve keeps the 300,000 gallon fire water tank topped off under normal circumstances. There is a bypass valve on the mezzanine inside Building 24 which can be opened to feed fresh water more quickly to the tank when needed.
2. In the event of a fire, a second inlet line to the 300,000 gallon fire water tank can be used by pumping water from Rocky River. (The pump must be started and stopped manually from inside Building 29.) The river water is pumped from a lined sump adjacent to the river by a 600 gallons-per-minute (g.p.m.) turbine pump through an 8' line to the storage tank.

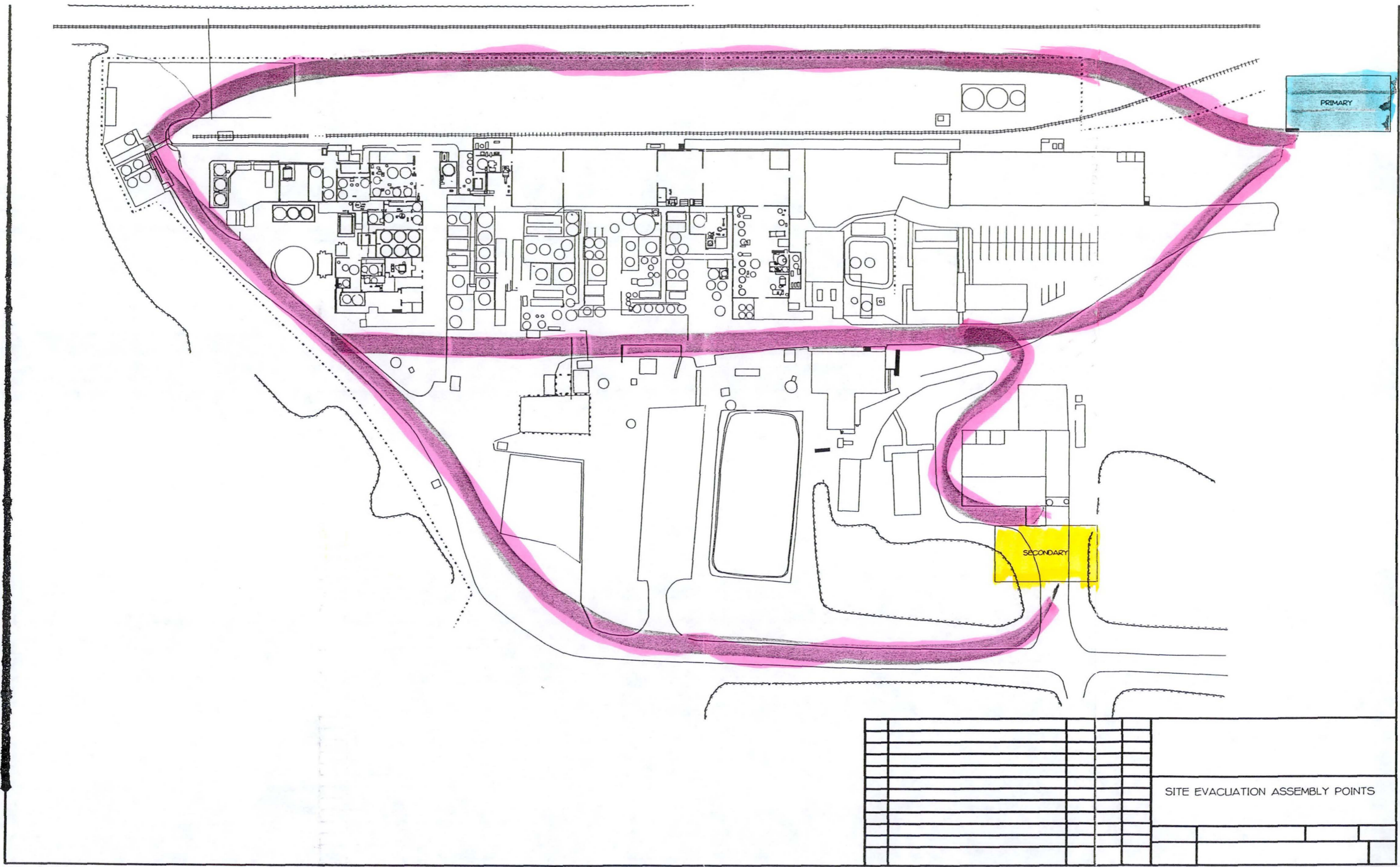
Water pressure is supplied to the sprinkler heads in three stages. The first stage is a jockey pump that cycles between 75 pounds and 135 pounds. The pumping capacity of the jockey pump is minimal and it is intended only to maintain pressure under normal circumstances. The second stage is a 100 HP electrically driven pump which is tied into a discharge manifold and pumps approximately 1,000 g.p.m. at 150 pounds per square inch (p.s.i.). This pump starts when the jockey pump can no longer keep up with the flow or at about 65 p.s.i. This pump is also on a separate electrical service than that of the production facility. If after seven minutes there is no longer a demand for water, then this pump will stop automatically due to a time clock. The third stage supplies water pressure via a 125 H.P. diesel driven pump that produces 1,000 g.p.m. at 150 p.s.i. If for any reason, either a mechanical problem or power outage, the other pumps do not start, the diesel pump starts after the pressure drops to 55 pounds. The diesel pump has to be cut off manually.

The pumps are tested on a periodic basis and testing documents are located in the Maintenance Offices.

There are six risers protecting six buildings. Each riser has a means of cutting off the water from both the inside the building and the outside. The outside valves are three types. One is the post indicator valve, one is the curb box valve and one is the wall mounted post indicator valve. All outside valves are locked in the open position so the water supply can not be tampered with. The six buildings are the Maintenance Shop, S-8 Warehouse, the Bottom Plant office, Industrial Products Production Building, Main Warehouses and the Laboratory. Buildings lacking sprinkler protection include the leased office trailers, the Maintenance Shop Storage Area and the 198 Refinery.

Each riser has a local alarm in the form of a water motor alarm. When water flows through the riser, this alarm rings because of the moving water. There is a local alarm panel in the plant office that signals whether or not the pump is running using indicator lights.

APPENDIX - 6
Evacuation Routes



PRIMARY

SECONDARY

SITE EVACUATION ASSEMBLY POINTS

APPENDIX - 7

Plan Updates

Contingency Plan Updates/Revisions

Revision Date	9/95
Section	Revisions
2.3	Specialists - Wood & Industrial - Added Bobby Baggett Site Utilities - Deleted Tim O'Rourke and Steve Furr, Added Doug Barnette and John Troutman Laboratory/R & D- Deleted Taisa Novak, Added Jim Driggers
2.4	Site Fires - Deleted Tim O'Rourke and Crawford Love, Added Doug Barnette and John Troutman Site Spills-Maintenance/Utilities - Deleted Tim O'Rourke, Added Doug Barnette
2.5	Added Emergency and Off-Hours Phone Number Deleted Steve Furr, Tim O'Rourke and Taisa Novak from List Added Doug Barnette, John Troutman, Tim Renckens, and Jim Driggers to List Updated All Phone Numbers
3.1	Added 1 Rolloff to Maximum Normal Waste Capacity Modified Appendix 1 to Appendix 1A and 1B Changed Description of # 5 Lagoon to Equalization and Settling Pond Added 90-day Storage Area for Untreated Hazardous Waste Added Roll-off for Waste Produced from the Arsenic Acid Reclamation Filter Press
3.5b	Changed wording of frequency of inspections Changed Waste Treatment Operator to Environmental Assistant Changed Destination for Checklists to Environmental Manager from Compliance Manager
5.2.4	Added Instructions for Using the Emergency Telephone/Radio Interconnect
5.3c	Added OSHA Notification for Fatalities and Serious Injuries
5.3e	Changed the Clean-Up Contractor to Four Seasons Environmental
5.4	Changed Ben Mabry's Phone Number
6.2.a	Updated Safety Shower Count and Appendix 3 Maps

6.3b	Updated Fire Extinguisher Count and Appendix 4 Maps
6.4a,b	Changed Safety Manager's Office to Environmental Assistant's Office
11.2	Better Defined Wood Products Area Spill Clean-up Procedures
11.3	Better Defined Industrial Products Area Spill Clean-up Procedures
11.4	Better Defined Hazardous Waste Spills Clean-up Procedures
11.13.1	Modified Secondary Evacuation Route
11.13.2	Added Roll-Off Dumpster Evacuation Procedure
13.0	Changed Jerome Rhodes to James Carter
Appendix 1	Split into Appendix 1A (Oil & Hazardous Waste Locations, General Site Map) and Appendix 1B (Specific Listing of Hazardous Waste Storage Areas) Modified Satellite Accumulation Area - Separated R & D Area Items
Appendix 2	Updated Drain Network Drawings
Appendix 3	Updated Eyewash and Safety Shower Locations
Appendix 4	Updated Fire Equipment Locations and Extinguishers List
Appendix 5	Updated Sprinkler System Operations
Appendix 6	Modified Hazardous Waste Storage Area Secondary Evacuation Route
Appendix 9	Updated Distribution List

APPENDIX - 8

Reportable Quantities Tables

Only included in Plant office and Compliance Manager Copies

APPENDIX - 9

Distribution List

APPENDIX - 10

Permit Modification Distribution List

APPENDIX - 11

Return Receipts for Copy Distribution

Only included in Compliance Manager's Copy



September 30, 1996

Mr. Sylvester Bartos, Compliance Manager
Chemical Specialties, Inc.
P.O. Box 640
5910 Pharr Mill Road
Harrisburg, NC 28075



RE: Approval of RFI Workplan

Dear Mr. Bartos:

This office has completed the review of the March, 1994 RFI Workplan (Workplan) with the amendments included in the November 17, 1995 correspondence. The Hazardous Waste Section (Section) considers the amended Workplan approved with the following conditions. If any of these conditions conflict with the text of the amended Workplan, then these conditions will supersede the text.

1. Appendix C, table C-2 of the amended Workplan must include the following changes. The following constituents must be added to the surface water analyte list: cobalt, magnesium, sulfates, calcium, and specific conductance. The following constituents must be added to the ground water analyte list: pH, specific conductance, mercury, copper, sulfates, molybdenum, DO, and phosphate. The following constituents must be added to the soil analyte list: cobalt and mercury. A replacement table must be submitted within 30 days of receipt of this approval letter.
2. CSI must include VOCs and semi-VOCs in the RFI ground water monitoring program until the ground water assessment is complete.
3. It is the Section's understanding that background soil samples will be analyzed for each of the constituents listed in Appendix C, table C-2 except for the organic constituents. It is also the Section's understanding that CSI will be responsible for remediation of organic constituents in the soil and ground water at the site.

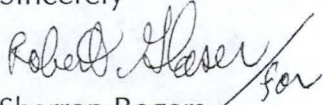
4. CSI will analyze soil samples collected at each SWMU associated with the truck maintenance area and the glycol recirculation pump for each of the constituents listed in amended Appendix C, table C-2. For all other SWMUs, CSI will analyze soil samples for the inorganic constituents in table C-2. Should additional information become available during the RFI or subsequent investigations, then additional sampling of specific areas and/or for additional constituents may be warranted.
5. In addition to the soil sampling proposed for SWMU 45, CSI must either conduct an engineering evaluation of the fiberglass tank or collect additional soil samples from below the bottom of the tank.
6. CSI has proposed to sample the terra cotta pipe (SWMUs 61 and 62) on 10 foot centers. The Section supports the sampling of these SWMUs and believes the focus must be along the joints and cracks in the pipe.
7. If a peristaltic pump is used for ground water sample collection then all of the procedures described in EPA's SOP manual must be followed (see section 4.9.5.1). In addition to the procedures described in the manual, it is the Section's understanding that it is also acceptable to collect samples for VOC analyses with the peristaltic pump by using the following procedure. Once all samples have been collected as described then the intake line extending from the well to the sample container can be disconnected and sealed. The sealed line can then be removed from the well and the liquid in the intake line can be allowed to discharge into the VOC sample bottles.
8. The sample collection procedure with the Solinst triple tube sampler, as described in Appendix O of the amended Workplan, appears to be satisfactory for the collection of samples for inorganic analyses. However, for organic analyses, this collection procedure is of questionable value. The Section believes there is a great potential for aeration of the sample, thereby yielding an unrepresentative sample.
9. In Appendix G, section 1.2, page 2, CSI has identified the onsite ponds as "settling and evaporation ponds". In the event that rainfall exceeds evaporation, the Section does not believe it is appropriate to refer to them as evaporation ponds. The Section will consider the ponds as settling ponds.

In addition to the conditions above, CSI should consider the following comments during implementation of the Workplan.

- Comment 1: Upon review of the material provided on the multiple screened wells, the HWS has a concern regarding the construction of the packer. Based upon the literature provided, the outer layer of the packer is constructed of rubber. The rubber packer material may impact the ground water quality in the wells.
- Comment 2: CSI has provided a drawing (figure 4-6) illustrating the location of the septic systems at the site. The Section requests that CSI provide additional information on the systems including the construction of the pipe, location of the tanks, etc. Once this information has been provided, the Section will provide more specific comments on the septic tanks.
- Comment 3: Prior to implementing the sample collection procedure for VOCs that is described in the November 17, 1995 correspondence, the Section recommends that CSI confirm that this procedure will not compromise the integrity of the VOC samples. EPA's SOP manual indicates that surface water samples collected for trace amounts of contamination should be collected by directly dipping the sample container in the surface water body.
- Comment 4: The Section recommends that all equipment, including safety lines and discharge tubing, that potentially come in contact with media being sampled should be constructed of either teflon, stainless steel or other material that will not compromise the integrity of the sample.
- Comment 5: If one of the goals of CSI's surface water monitoring program (described in Appendix D) is to determine if ground water from the site is impacting the river then the Section recommends that the program be modified based upon the following comments. CSI should consider the ground water flow net analysis as well as the other hydrogeologic data available for the site. With this data, CSI should be able to select likely ground water discharge areas. Once these areas have been identified then CSI should be able to implement, during low flow conditions, a representative surface water monitoring program.

If there are any questions please contact either Bob Glaser or Christine Ritter, Hydrogeologists on the staff. They may be reached by calling (919) 733-2178 extension 215 for Bob or extension 296 for Christine.

Sincerely

A handwritten signature in cursive script that reads "Sharron Rogers". The signature is written in black ink and is positioned above the typed name.

Sharron Rogers
Remediation Branch Head
Hazardous Waste Section

cc: Jesse Wells
Christine Ritter

rc: Sharron Rogers
Jill Burton
Beth Hartzell
Bob Glaser

C:\WPFILES\RUTH\RLG\REP-TO-C.OMS

State of North Carolina
 Department of Environment, Health and Natural Resources
 Division of Waste Management
 Hazardous Waste Section

SITE SAFETY PLAN
 (HWS-SSP)

Facility Name: Chemical Specialties, Inc.
 Address: 5910 Pharr Mill Road
Harrisburg, N.C. 28015

EPA#: NCD 048467427
 Phone# 1041455-5181

Client Name: _____
 Facility Contact: Mr. Syl Barts
 Health/Safety Contact: Mr. Keith Howie
 SSP Prepared/Reviewed By: Gene Welles

Phone# _____
 Phone# _____
 Date(s): August 28, 1996

B. PROJECT DESCRIPTION

X	TYPE	DATE	X	ACTIVITY	DATE
	CME			INSPECTION	
✓	CEI	7/8/96		DRUM/SLUDGE SAMPLING	
	CDI			SOIL/SEDIMENT SAMPLING	
	RFI			GROUNDWATER SAMPLING	
	RFA			SURFACE WATER SAMPLING	
	O & M			AIR SAMPLING	
	SITE INVESTIGATION/ VISIT			OTHER:	
	TECHNICAL ASSISTANCE				

Project Activity Summary: _____

(C) EMERGENCY INFORMATION

Ambulance: Cabarrus County Emer. Services (CCES) Telephone# 911
 Hospital: Cabarrus Memorial / CMH Quick Care Telephone# 911
 Police: Sheriff Dept. Telephone# 911
 Fire Department: Harrisburg VFD through CCES Telephone# 911
 Fire and Emergency Signals reviewed: Yes
 Site Evacuation plan reviewed: Yes

(D) FACILITY DESCRIPTION

Manufacturing Process Description: Manuf. of Wood Treatment Chemicals -
CCA (Chromium, Copper Arsenic) wastes - Primarily characteristic hazardous
waste - chrome, arsenic primary hazards

Site Topography:

Mountains ___ Rivers ___ Valley ___ Level ___ Slopes ___ Urban ___ Facility ___ Other ___
 Special Access Requirements: None

Possible Physical Hazards:

Hazard	Yes	No	Hazard	Yes	No
Electrical Hazards: _____	✓		Confined Space		✓
Uneven/Slippery Ground: _____	✓		Noise: _____	✓	
Trips/Falls	✓		Drums/Containers	✓	
Structural Hazards: _____	✓		Other: _____		
Heavy Equipment: _____		✓			
Biologic: _____		✓			
Heat/Cold	✓				

Hazard summary (also discuss known concentrations):

Hazard Information Source(s): *ie. NIOSH Pocket Guide to Chemical Hazards*

Previous Releases, Accidents or Complaints

(describe whether air, soil, water or industrial and if corrected): _____

(G) PERSONAL PROTECTIVE EQUIPMENT

Description	Level of Protection			Description	Level of Protection		
	B	C	D		B	C	D
CLOTHING				RESPIRATORY PROTECTION			
Coveralls				Cloth Respirator			
Tyvek				Full-face Air-purifying Respirator			
Coated Tyvek				Self-contained Breathing Apparatus			
Saranex				HANDS/ARMS			
HEAD, FACE AND EYES				Vinyl Gloves			
Hardhat			✓	Latex Gloves			
Safety Glasses			✓	Nitrile Gloves			
Goggles				PVC Gloves			
Splash Guard				Duct Tape			
FOOT PROTECTION				OTHER:			
Steel-toed Safety Boots			✓				
Chemical-resistant Boot Covers							

NOTE: During normal daily work activities, HWS employees are required to always have in their possession a First Aid kit and fire extinguisher as well as any other of the above listed equipment.

* Hearing Protection Required

(H) DECONTAMINATION PROCEDURES

Most equipment used by HWS personnel is disposable; and thus, should be discarded upon concluding the project, inspection, etc. Equipment such as respirators, augers, shovels, etc. which are re-usable shall be decontaminated according to EPA and HWS protocols.

NOTE: CONTAMINATED DISPOSABLE EQUIPMENT SHOULD REMAIN AT THE SITE OF ORIGIN.



March 22, 1994

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. Jesse Wells
Waste Management Specialist
Hazardous Waste Section
North Carolina Department of
Environment, Health and
Natural Resources
919 N. Main Street
Mooresville, North Carolina 28115

Dear Mr. Wells:

To follow-up on your inspection of March 15, 1994 I offer the following:

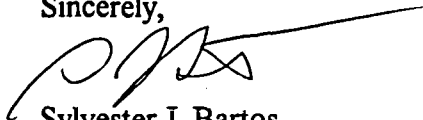
1. *The one box located in the 90-day accumulation area without an accumulation start date.* The box has been dated with accumulation date indicated in the site's generator log book. Our internal procedures indicate that by initialling the space in the log book indicates that the box has been assembled, labeled and dated correctly. The employee who placed the box in storage has subsequently been given a 5-day suspension. He has previously had an excellent history with the company however, we take this type of oversight very seriously.
2. *Annual training must be conducted prior to the anniversary of the previous training.* It was the sites interpretation that annual meant within the calendar year, however you indicated the existence of an internal NCDEHNR policy which indicated that annual is based on anniversary date. As a result several individuals were as much as two weeks past due for their training. Although this policy was not known to us at the time, we shall place the training on an eleven month training schedule to alleviate this problem.

Dear Mr. Wells:
March 22, 1994
Page 2

3. *Other recommendations* will be performed in time for your follow-up inspection of April 15, 1994.

If you have any questions please feel free to contact us at your convenience. Thank you for your time and consideration in this matter.

Sincerely,

A handwritten signature in black ink, appearing to read 'S. Bartos', with a long horizontal line extending to the right.

Sylvester J. Bartos
Compliance Manager
Chemical Specialties, Inc.

cc: D.W. Moon

RCRA INSPECTION REPORT

X - VIOLATION NOTED; NA - NOT APPLICABLE

Facility Name: Chemical Specialties, Inc.

Location: 5910 Pharr Mill Road

Mailing address: Post Office Box 610 Harrisburg, N.C. 28075

ID# NCD 048 467 427 Phone number: (704) 455-5181

Contact/title: Mr. Sylvester Bartos, Compliance Manager

Inspection date: March 15, 1994 Last inspection: April 5, 1993

Status: Generator / TSD / Transporter Type of inspection: CEI

Inspector(s): Jesse W. Wells

Present at inspection: _____

Type of business: Manufacturer of inorganic chemicals (i.e. chromated copper arsenate, arsenic acid, nitrates)

Wastes generated: As filter/debris (D4, D9), CCA debris/filtercake (D2, D4, D7), Petro. naphtha

Manifests: Post Closure Permit for previous closure of four (4) surface impoundments

Approved transporters? O.K. Approved TSD's? O.K. Signed copies? O.K.

Filled out correctly? O.K. LDR Notification attached? O.K.

Waste minimization: Program in place. Normal haz. waste stream generation amount was decreased in 1993.

Inspection Records: Monthly inspections kept in individual files.

Evidence that inspections are conducted: Daily - Insp (Fence W.WT sys)

Weekly - Satellite Area, <90 day area, Gw sys, Closed Impoundments, Spill Equipment,

Contingency Plan:

On-site? Yes

Any changes to facility/processes or emergency coordinator since last review?
None noted.

Facility Name: Chemical Specialties, Inc.

ID#: NCD 048 467 427

Inspection Date: March 15, 1994

Contingency plan implemented? No (If yes, was it adequate?)

Training Records:

Certified training documents available? Yes

Any new employees since last review? Yes

Evidence of improper/inadequate training? No

Employee interviews:

Name(s): Kevin Archer R&D Manager. Trained? yes

Annual report submitted? Dated 2/28/94

Emergency preparedness:

Facility maintained and operated to prevent releases? Released material placed back into process.

Internal communications or alarm present? ADT Alarm

Device in area of operation to summon outside aid? ADT Alarm

Portable fire extinguisher and/or fire control equipment? Yes

Spill control equipment? Noted in the <90 day storage area

Adequate water volume, foam equipment or auto sprinklers? _____

All equipment/alarms tested and maintained? ADT monthly

All personnel handling HW have access to alarm/device? Yes

Aisle space in areas of facility operation? Yes

Agreements with Emergency Responders? yes

Satellite Accumulation Area(s): Location(s): Attachment - In compliance

Facility Name: Chemical Specialties Inc.
ID#: NCD 048 467 427
Inspection Date: March 13, 1997

Containers: closed? O.K.
 labeled? O.K.
 < 55 gallons? O.K.

Storage Areas: Description: _____
198 Rubbish debris not dated * - totes (21) (1) drum
Spill equipment - adequate.

Containers: closed? O.K. aisle space? O.K.
 labeled? None O.K. evidence of release? NO
 dated? None < 90 days? O.K.
 good condition? yes

Other HW units: (applicable regulations)

Description of unit: _____

External facility condition: _____

Site Deficiencies: _____

1. 40 CFR 262.34(a)(2) - The date of accumulation must be clearly marked on container of haz waste in < 90 day stroke area - Corrected. All containers dated 4/27/94 g.w.
2. 40 CFR 262.34(a)(1) ref 265.173(a) - Container must be closed, except to add or remove waste. Tote Arsenic Acid Area. Deleted due to further review of process.
3. 40 CFR 262.34(a)(4) ref 265.16(c) Annual training must be conducted on or before the date of the previous training.

Facility Name: Chemical Specialties, Inc.

ID#: NC 048 467 427

Inspection Date: March 15, 1994

Site Deficiencies (continued): _____

Recommendation: 1. Establish Primary/Secondary Route (Evacuation) from <90 day storage area. (Indicate in contingency plan - Notify permitting branch prior to modification).

2. Guidance document left for "waste minimization."

3. Be conscious of "empty drums" R&D area. Keep rainfall collection to minimum. Be aware of container(s) condition.

4. Develop procedure for "adding/removing waste" in arsenic acid area.

Jesse W. Wells JMW:st
Inspector (Date) 3/15/94

[Signature] 3/15/94
Facility Contact (Date)

4/27/94 -

Be aware of aisle space. Recommend that all labels face outward to allow inspection. Facility has complied with previous recommendations. Facility was determined to be in compliance with NDV Docket # 94-125. Jesse Wells 4/27/94

HO Howie 4/27/94

DIVISION OF SOLID WASTE MANAGEMENT
HAZARDOUS WASTE SECTION

Chemical Specialties Inc.
NCD 048467427
Cabarrus County, N.C.

Satellite Areas	< 55 Gallons No. of Containers	Labeled	Comment
1. Man Arsenic Trioxide Unloading Area	1	Yes	
2. Arsenic Acid Area	1	Yes	
3. Sodium Dichromate	1	Yes	
4. CCA Production	1	Yes	
5. Pilot Plant Area	Not in Service at the time of the inspection		
6. 5 QC Labs		Yes	
7. R&D Labs	1	Yes	
8. R&D Treatment Cylinder Area	1	Yes	
9. Maintenance	1	Yes	
10. 198 Control Room	1	Yes	
11. 198 QC Lab	1	Yes	
12. 198 Breakroom	1	Yes	
13. Bulk Bag Area	1	Yes	

Three >90 Day Storage Areas

	Dated	Labeled	Closed
1. Arsenic Acid Area	Yes	Yes	In Process
2. Bulk Bag Room	Yes	Yes	Yes
3. Warehouse > 90 Day Storage	No	Yes	Yes

GROUND WATER INSPECTION FORM - PART 265

Name of Site: Chemical Specialties, Inc.

EPA I.D.: NCD 048 467 427

County: Cabarrus

Inspection Date: March 15, 1994

Signature of Inspector(s): Jesse W. Leibel

Signature of Facility Contact: [Signature]

In each blank place a "C" for in compliance, or an "X" for not in compliance, or a "N/A" if not required. All blanks should be completed.

SUBPART F - GROUND WATER MONITORING

1. Install, operate, and maintain ground water monitoring system in compliance with 265.90(b) reference 265.91 or 265.90(d)

C minimum of 4 wells installed; one of the wells must be installed upgradient and the other wells must be located downgradient of the waste management area; the downgradient wells must be as close as technically feasible to the limits of the waste management area.

2. Ground Water Sampling and Analysis Plan

C developed and maintained in accordance with 265.92(a)

3. Ground Water Assessment Plan [(265.93(d)(2))]

C developed and submitted to the State Program Administrator, if required.

4. Quarterly/Semi Annual Ground Water Sampling [265.93(d)(7)]

C quarterly and/or semi-annual ground water samples collected and analyzed as specified.

5. Record Keeping and Reporting [265.94(b)]

C maintain records of ground water sample analyses at the facility.

C submit annual report containing the results of the Groundwater Assessment Program by March 1, 1994.

1.) O&M performed 10/26, 27/93

2.) Six monitor wells being actively monitored

SUBPART K: SURFACE IMPOUNDMENTS CHECKLIST

NAME: Chemical Specialties, Inc.

EPA ID # NCD: 048 467 427

COUNTY: Cabarrus

DATE: March 15, 1994

FACILITY CONTACT: Mr. Sylvester Bartos

WASTE MANAGEMENT SPECILIST: Jesse W. Wells

INSTRUCTIONS: In the space provided, check the appropriate response

Non-hazardous

	YES	NO
1. General operating requirements: At least 60 cm (2 feet) of freeboard (<u>Note</u> overtopping by overflowing, wave action, or a storm) (265.222)	()	(✓)
2. Containment system: dikes adequately covered with grass, shale or rock (<u>note</u> erosion) (265.223)	(✓)	()
3. Waste analysis and trial tests: (265.225)		
a. <u>procedures</u> for and <u>records</u> of waste analysis and trial tests	(✓)	()
4. Inspections and maintenance of: (265.226)		
a. freeboard level (265.226(a)(1))	(✓)	()
b. dikes (265.226(a)(2))	(✓)	()
c. vegetation surrounding dikes (265.226(a)(2))	(✓)	()
5. Closure and post closure plans present at site (265.228)	() N/A	()
6. Proper disposal of ignitable or reactive wastes (265.229)	(✓)	()
7. Proper disposal of incompatible wastes (265.230)	(✓)	()
8. Evidence of leaks, deterioration, or malfunction	()	(✓)

TSDF INSPECTION FORM - PART 264
SUPPLEMENTAL CHECKLIST FOR FACILITY - SPECIFIC CONDITIONS

MINERAL RESEARCH AND DEVELOPMENT CORPORATION
Harrisburg

NCDO48467427
Cabarrus County

1. Post-closure documents to be maintained at facility site
(Permit Conditions I.F.).

- C Corrective action system operation and maintenance plans.
- C Cost estimate for corrective action system.
- C Post-closure plan(s).
- C Cost estimate for post-closure care.
- C Inspection schedules developed in accordance with 264.15(b).
- C Operating record required by 264.73 and Permit Condition III.E.
- C Corrective Action Plans and reports required by 264.101.
- C Ground water monitoring records used to develop reports required by the permit.
- C A survey plat and record of the type, location and quantity of hazardous waste or hazardous constituents disposed of within each cell or area of the facility (to include solid waste management units) as required by 264.119.
- C All reports and documentation of compliance with 264.118(a), (b)(1) and (2) during the post-closure period.

RECORD OF COMMUNICATION

PHONE CALL DISCUSSION FIELD TRIP CONFERENCE
 OTHER (SPECIFY)

(Record of item checked above)

TO:

FROM:

DATE

3/14/94

TIME

1445

File
SUBJECT

Jesse Wells

Chemical Specialties per Jenny Wapp.
SUMMARY OF COMMUNICATION

*Letter of Credit for Post Closure Only
Post Closure Estimate \$208,839.00
Expires November 13, 1994*

CONCLUSIONS, ACTION TAKEN OR REQUIRED

INFORMATION COPIES

TO:

State of North Carolina
Department of Environment, Health, and Natural Resources
Division of Solid Waste Management
Hazardous Waste Section

SITE SAFETY PLAN (SSP) UPDATE FORM
(Regulated Facility)

(A) Facility Name: Chemical Specialties, Inc. EPA ID# NCD 048 467 427
Address: 5910 Pharr Mill Road Harrisburg, N.C. Phone# (704) 455-5181
Contact: Mr. Sylvester Bartos Phone# _____
Facility Safety Designee: _____
HWStaff: Jesse W. Wells Date: March 15, 1994

(B) REVIEW AND CHANGES

SSP Reviewed: SSP Changed: (1) SSP Unchanged:

Comments: _____

(1) NOTE: Any changes made in the facility process descriptions or health and safety considerations section of the SSP must be shown on a new SSP.

(C) EMERGENCY INFORMATION

Ambulance: Harrisburg Rescue - (CCES) Telephone# (704) 782-2123
Hospital: Cabarrus Memorial Hospital Telephone# (704) 783-1617
Police: Cabarrus County Emer. Ser. Telephone# (704) 782-2123
Fire Dept.: Cabarrus County Emer. Ser. Telephone# (704) 782-2123
Fire & Emergency Signals Reviewed: Jesse W. Wells
Site Evacuation Plan Reviewed: Jesse W. Wells

SAFETY OFFICER: _____ DATE: _____

Solid Waste Management Division
Hazardous Waste Section

NOTICE OF VIOLATION

To: Chemical Specialties, Inc.
Address: 5910 Pharr Mill Road
Harrisburg, N.C.
EPA ID# NCD 048 467 427

Docket # 94-125
Inspection Date March 15, 1994
Facility Type Generator, TSD, Transporter

On December 18, 1980, the State of North Carolina, Hazardous Waste Section (State) was authorized to operate the State RCRA hazardous waste program under the Solid Waste Management Act (ACT), N.C.G.S. 130A, Article 9 and rules promulgated thereto at 15A NCAC 13A (Rules) in lieu of the federal RCRA program.

On March 15, 1994, Jesse Wells & Robin Madden representing the N.C. Hazardous Waste Section, inspected your facility for compliance with North Carolina Hazardous Waste Management Rules. During that inspection, the following violations were noted:

Citation	Specifics
<u>40 CFR 262.34(a)(1)</u> <u>ref 265.173(a)</u>	<u>Containers must be closed except to add or remove hazardous waste. Deleted upon further review of process.</u>
<u>40 CFR 262.34(d)(2)</u>	<u>Accumulation date must be clearly marked on the containers.</u>
<u>40 CFR 262.34(a)(4)</u> <u>ref 265.16(e)</u>	<u>Annual training must be conducted on or before the date of the previous training.</u>

You are hereby required to comply with the noted violation(s) by April 15, 1994, at which time a reinspection will be performed. If compliance with the violation(s) noted above are not met, pursuant to N.C.G.S. 130A-22(a) and 15A NCAC 13B .0701 - .0707, an administrative penalty of up to \$25,000.00 per day may be assessed for violation of the hazardous waste law or regulations.

March 15, 1994
(Date)

Jesse W. Wells
N.C. Hazardous Waste Section

I, Jesse W. Wells, hereby certify that I have personally served a copy of this Notice on:

Mr. Sylvester Bartos at Chemical Specialties, Inc.
(Name) (Location)

on March 15, 1994.

Sylvester Bartos
(Recipient Signature)

copies to: field files
central files
Regional Manager

State of North Carolina
Department of Environment,
Health and Natural Resources
Division of Solid Waste Management

James B. Hunt, Jr., Governor
Jonathan B. Howes, Secretary
William L. Meyer, Director



May 16, 1996



Mr. Sylvester J. Bartos
Compliance Manager
Chemical Specialties, Inc.
Post Office Box 610
Harrisburg, NC 28705

Re: RCRA Permit Modification
Chemical Specialties, Inc.
Facility ID # NCD 048 467 429

Dear Mr. Bartos:

A review of your request for a permit modification to change the Contingency Plan has been processed as a class one (1) permit modification under 40 CFR 270.42 as referenced in 15A NCAC 13A .0013. To comply with 40 CFR 270.42 you must notify all persons on the enclosed mailing list with the exception of the State and EPA who have already been notified.

This permit modification does not cause a change in the actual permit document, however the attached application pages should replace the corresponding pages in the application.

Approval of this modification is therefore granted and has been incorporated into your permit. If you have any questions, please contact Beth Hartzell at (919) 733-2178 ext 226.

Sincerely,

James A. Carter, Chief
Hazardous Waste Section

Enclosure

cc: G. Alan Farmer, US EPA, Region IV
A. Preston Howard, Jr., DEM
Mr. John V. Witherspoon, Cabarrus County Manager
Jesse Wells

rc: Jill E. Burton
Christine A. Ritter
Robert L. Glaser

Sharron E. Rogers
Gena M. Driscoll
Elizabeth A. Hartzell

JAC\EAH\tc-10.wp6

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State of North Carolina
Department of Environment,
Health and Natural Resources
Division of Solid Waste Management



James B. Hunt, Jr., Governor
Jonathan B. Howes, Secretary
William L. Meyer, Director

February 7, 1996

Sylvester J. Bartos Compliance Manager
Chemical Specialties, Inc.
Post Office Box 610
5910 Pharr Mill Road
Harrisburg, North Carolina 28075

RE: Customer's CCA Residue

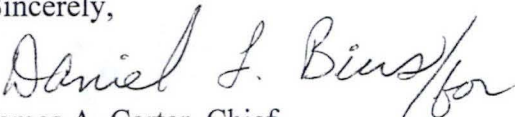
Dear Mr. Bartos:

This is in response to your July 21, 1995, letter requesting a regulatory interpretation of hazardous waste management regulations regarding the management of CCA residue generated by your customers when employing a hot water bath process to speed up the fixation of the CCA. After an extended period of use, the heating solution is said to build up organic matter, copper, arsenic and chrome. Chemical Specialties, Inc. (CSI) has developed a technology to filter the precipitation from the heating solution rendering a solid material of filter aid/arsenic/copper/chrome compounds. There are trace arsenic levels over hazardous waste toxicity characteristic level. CSI states it can use the filtered material as generated to replace raw material feedstock in its manufacturing of CCA. CSI considers the filtered material a "by-product" since it is a process residue.

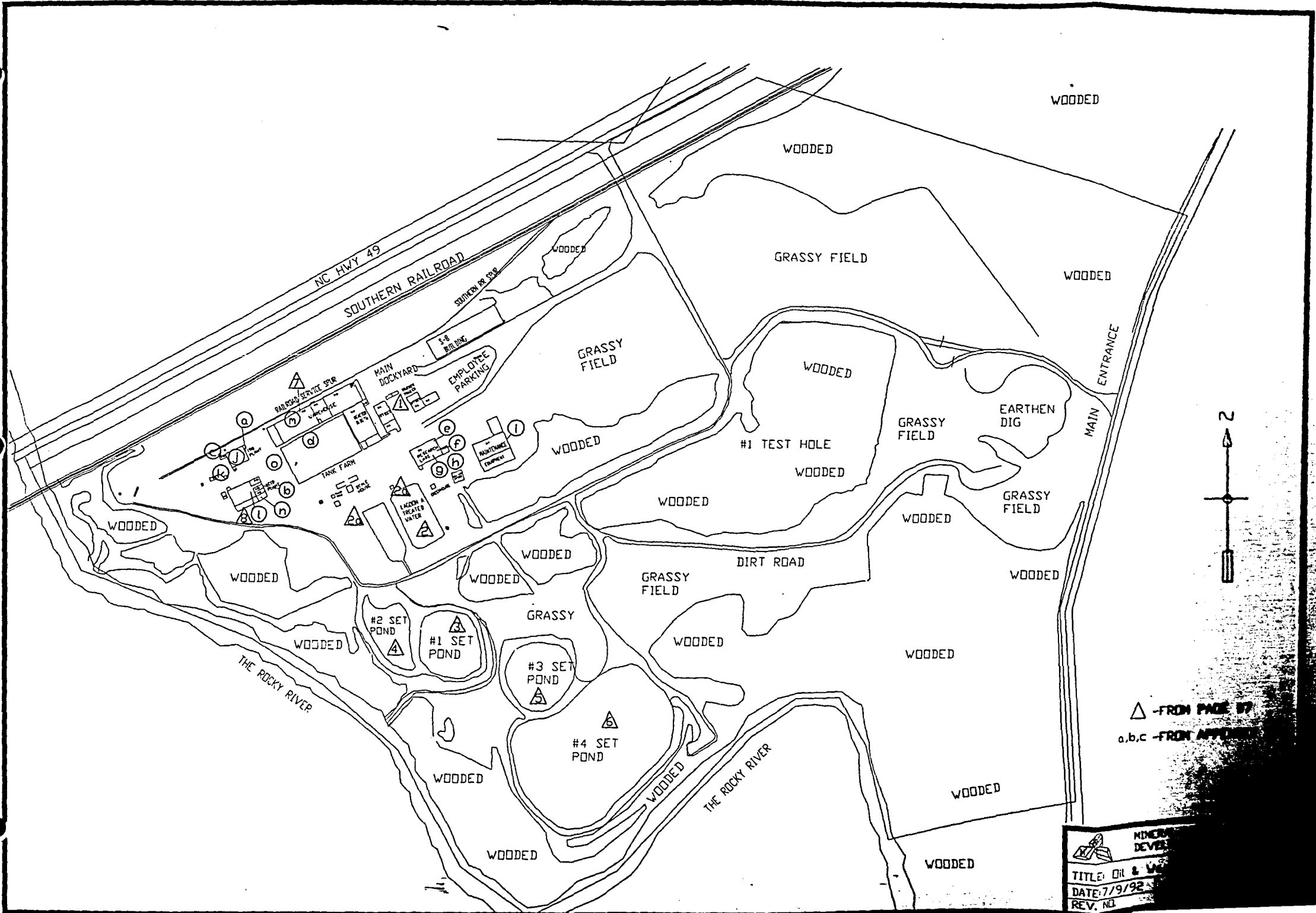
The initial levels of the metals in the spent hot water bath was not indicated. If the spent bath would be considered a hazardous waste, your customer would be able to treat (filter) the hazardous waste in a tank or container under hazardous waste generator provisions. The filtrate if reclaimed and reused to treat wood, would not be considered a solid waste under the provisions of 40 CFR 261.4(a)(9) as codified at 15A NCAC 13A .0006 and thus not regulated. under RCRA as a hazardous waste.

If you have any questions, please feel free to contact Doug Roberts of my staff at (919) 733-2178 ext. 233.


Sincerely,


James A. Carter, Chief
Hazardous Waste Section

cc: Linda Culpepper Doug Holyfield Keith Masters Jesse Wells Doug Roberts



▲ -FROM PAGE 07
 a,b,c -FROM APPENDIX


 MINERAL
 DEVELOPMENT
 TITLE: OH & W
 DATE: 7/9/92
 REV. NO.

State of North Carolina
Department of Environment,
Health and Natural Resources
Division of Solid Waste Management

James B. Hunt, Jr., Governor
Jonathan B. Howes, Secretary
William L. Meyer, Director



May 22, 1996

Mr. Sylvester J. Bartos
Compliance Manager
Chemical Specialties Inc.
Post Office Box 610
Harrisburg, North Carolina 28705

Re: Determination of Completeness
Issuance of Draft Permit
Chemical Specialties Inc.
Facility ID # NCD 048 467 427

Dear Mr. Bartos:

Your Part B Application and all associated addenda are considered to constitute a complete application package in accordance with 40 CFR 124.3 as adopted in 15A NCAC 13A .0005. This office reserves the right to request more information when necessary to clarify, modify, or supplement previously submitted material. Requests for such additional information will not render the application incomplete.

Enclosed is the Hazardous Waste Management Draft Renewal Permit for Chemical Specialties Inc. Also enclosed are the Public Notice for the Draft Renewal Permit and the Fact Sheet describing operations at Chemical Specialties Inc.

As stated in the Public Notice, the public comment period for the Draft Renewal Permit will begin on May 24, 1996 and will end July 8, 1996. The public hearing will be held June 27, 1996 at 11:00 a.m. in the Board of Commissioner's Meeting Room, 2nd floor of the Governmental Center, 65 Church Street SE, Concord, North Carolina. The Renewal Permit may be issued and become effective on July 12, 1996 if no comments are received. Any comments that are received during the comment period will be considered and, if appropriate, incorporated into the Permit Conditions. Therefore, the Permit decision would be delayed until the response to comments could be completed.

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Page 2
Mr. Bartos

Please submit in writing any comments you may have on the Draft Renewal Permit by the end of the comment period. If you have any questions, please contact Beth Hartzell at (919) 733-2178 ext. 226.

Sincerely,



James A. Carter, Chief
Hazardous Waste Section

JAC\EAH\tc-13.wp6

cc: G. Alan Farmer, US EPA, Region IV
A. Preston Howard, Jr., DEM
Jesse Wells
Jill E. Burton

rc: Sharron E. Rogers
Christine A. Ritter
Elizabeth A. Hartzell

NORTH CAROLINA DEPARTMENT OF ENVIRONMENT,
HEALTH AND NATURAL RESOURCES
HAZARDOUS WASTE SECTION
POST OFFICE BOX 27687
RALEIGH, NORTH CAROLINA 27611-7687
(919) 733-2178

Notice of proposed issuance of and Public Hearing and public comment period for a renewal permit under the Federal Resource Conservation and Recovery Act (RCRA) as amended by the Hazardous and Solid Waste Amendments of 1984 (PL 98-616) and the North Carolina Hazardous Waste Management Rules (15A NCAC 13A) to Chemical Specialties Inc., 5910 Pharr Road, Harrisburg, Cabarrus County, North Carolina.

This is to notify the interested public of a Public Hearing to be held on June 27, 1996 at 11:00 a.m., Board of Commissioner's Meeting Room, 2nd floor of the Governmental Center, 65 Church Street SE, Concord, North Carolina. All interested parties will have an opportunity to present oral (for no more than five (5) minutes) and/or written statements at the hearing.

The public comment period will begin on May 24, 1996, and extend through July 8, 1996. Comments regarding the North Carolina RCRA draft permit should be sent to the following address by July 8, 1996:

James A. Carter, Chief
North Carolina Hazardous Waste Section
Post Office Box 27687
Raleigh, NC 27611-7687

All data submitted by the applicant is available as part of the administrative record. Copies of the draft permit, the permit application, and a fact sheet are available for review at the following location during office hours (9:00 a.m. to 4:00 p.m.) Monday through Friday:

Hazardous Waste Section
401 Oberlin Road, Room 150
Raleigh, North Carolina 27605
Call (919) 733-2178 extension 311 for appointment.

A summary of the permit application follows:

A draft renewal permit has been prepared for Chemical Specialties Inc., 5910 Pharr Road, Harrisburg, North Carolina, 28075, to perform post-closure monitoring and corrective action at the site.

All comments received during the public comment period or at the hearing will be considered in the formulation of a final determination regarding the permit.

The statutory authority for calling the permit hearing is G.S. 130A-294(f). A full description of State rules for the hearing is found in the North Carolina Hazardous Waste Management Rules 15A NCAC 13A .0005 (40 CFR 124.10, 124.11, 124.12, 124.17, and 124.20).

FACT SHEET

Chemical Specialties Inc.
5910 Pharr Road
Harrisburg, North Carolina 28075

A Draft Renewal Permit has been prepared for Chemical Specialties Inc. to conduct post-closure care of three hazardous waste management units (former lagoons), to monitor the groundwater quality and to perform corrective action. The State has determined that Chemical Specialties Inc.'s proposed activities as identified in the application satisfy the full intent of the North Carolina Hazardous Waste Management Rules and Hazardous and Solid Waste Amendments to RCRA of 1984. This permit issued by the State of North Carolina constitutes a complete permit under the Resource Conservation and Recovery Act.

This permit would allow the facility to monitor groundwater for the hazardous waste management units identified at this site.

The North Carolina Hazardous Waste Management Rules require that the public be given a forty-five (45) day period to comment on the draft renewal permit. This 45-day period will commence on May 24, 1996. The draft renewal permit is available for review during office hours (9:00 a.m. to 4:00 p.m.) Monday through Friday. All data submitted by the applicant is available as part of the administrative record. Persons wishing to comment on either this permit or the proposed permit conditions or to object to the permit issuance should submit such comments in writing prior to July 8, 1996. Comments should be sent to the address shown below. All comments received within the 45-day period will be considered in the formulation of final determinations regarding the permit.

Mr. James A. Carter, Chief
North Carolina Hazardous Waste Section
Post Office Box 27687
Raleigh, North Carolina 27611-7687
(919) 733-2178

A public hearing (15A NCAC 13A .0005) concerning the issuance of the proposed permit will be held on June 27, 1996 at 11:00 a.m., Board of Commissioner's Meeting Room, 2nd floor of the Governmental Center, 65 Church Street SE, Concord, North Carolina. Attendees may submit a written statement for the official record in addition to their oral statement or they may submit written comments in lieu of making an oral presentation. When a final permit decision is made to either issue, deny, or modify the permit, notice will be given to the applicant and to each person who has submitted written comments or requested notice of the final decision.

DRAFT

I.D. NUMBER NCD 048 467 427
PERMIT NO. NCD 048 467 427-R1

DATE ISSUED _____

Permittee: Chemical Specialties Inc.
5910 Pharr Road
Harrisburg, North Carolina 28075

Owner: Chemical Specialties Inc.
One Woodland Green, Suite 250
Charlotte, North Carolina 28217

Pursuant to the 15A NCAC 13A North Carolina Hazardous Waste Management Rules, a post-closure permit is issued to the Chemical Specialties Inc. hazardous waste facility located in the Yadkin/Pee Dee river basin, Harrisburg, Cabarrus County on Pharr Mill Road at latitude 35° 42' 00N" and longitude 80° 37' 30W".

The Permittee must comply with all terms and conditions of the permit. This permit consists of the conditions discussed in Parts I, II, III, IV, V, VI, and VII, the applicable regulations contained in 15A NCAC 13A including the applicable provisions of 40 CFR Parts 260 through 264, 266, 268, 270 and 124, statutory requirements of N.C.G.S. 130A -Article 9 (Solid Waste Management Act as amended) and the attached application.

Applicable regulations are those which are in effect on the date of issuance of this permit [40 CFR 270.32(c) as adopted in 15A NCAC 13A .0013] and are attached.

This permit is based on the assumption that the information submitted in the permit application and as modified by subsequent amendments (hereafter referred to as the Application) is accurate and that the facility will be operated as specified in the Application. Any inaccuracies found in this information could lead to the termination or modification of this permit and potential enforcement action [40 CFR 270.41, 270.42, and 270.43 as adopted in 15A NCAC 13A .0013]. The Permittee shall inform the North Carolina Department of Environment, Health, and Natural Resources of any deviation from or changes in the information in the Application which would affect the Permittee's ability to comply with the applicable regulations or permit conditions.

This permit is effective as of _____, and shall remain in effect for ten (10) years until _____, [40 CFR 270.50 as adopted in 15A NCAC 13A .0013] unless revoked and reissued, terminated or continued in accordance with 40 CFR 270.51 as adopted in 15A NCAC 13A .0013.

James A. Carter, Chief
Hazardous Waste Section

Date

csiper

TABLE OF CONTENTS

<u>PART OF PERMIT</u>	<u>TOPIC</u>
PART I	Standard Conditions
PART II	General Facility Conditions
PART III	Post-Closure Care
PART IV	Corrective Action for Solid Waste Management Units (SWMUs)
PART V	Waste Minimization
PART VI	Land Disposal Restrictions
PART VII	Organic Air Emissions Requirements
APPENDIX A	Ground Water Sampling and Analysis
APPENDIX B	Summary of Solid Waste Management Units and Areas of Concern
APPENDIX C	RCRA Facility Investigation (RFI) Plan Outline
APPENDIX D	Schedule of Compliance
APPENDIX E	Corrective Measure Study (CMS) Plan Outline
APPENDIX F	Waste Minimization Objectives

ATTACHMENTS

CHEMICAL SPECIALTIES INC. POST-CLOSURE PART B APPLICATION

<u>APPLICATION</u>	<u>TOPIC</u>
Section A	Part A Application
Section B	General Facility Information
Section C	Waste Characteristics
Section D	Landfills
Section E	Ground Water Monitoring
Section F	Procedures to Prevent Hazards
Section G	Contingency Plan and Emergency Procedures
Section H	Personnel Training
Section I	Closure, Post-Closure, and Financial Assurance
Section J	Other Federal Laws
Section K	Certification
Section L	Solid Waste Management Units

REGULATIONS

15A NCAC 13A	January 29, 1996 Certification
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PART I - STANDARD CONDITIONS

A. EFFECT OF PERMIT

The Permittee is allowed to conduct post-closure care and corrective action requirements in accordance with the conditions of this permit. Any treatment, storage, or disposal of hazardous waste not authorized in this permit is prohibited. Compliance with this permit constitutes compliance, for purposes of enforcement, with the N.C. Hazardous Waste Management Rules (15A NCAC 13A) and NCGS 130A-Article 9 (Solid Waste Management Act as amended). Issuance of this permit does not convey property rights of any sort or any exclusive privilege; nor does it authorize any injury to persons or property, any invasion of other private rights, or any infringement of State or local law or regulations. Compliance with the terms of this permit does not constitute a defense to any action brought under any law governing protection of public health or the environment for any imminent and substantial endangerment to human health or the environment.

B. PERMIT ACTIONS

This permit may be modified, revoked and reissued, or terminated for cause as specified in 40 CFR 270.41, 270.42, and 270.43 as adopted in 15A NCAC 13A .0013. The filing of a request for a permit modification, revocation and reissuance, or termination or the notification of planned changes or anticipated noncompliance on the part of the Permittee does not stay the applicability or enforceability of any permit condition.

C. SEVERABILITY

The provisions of this permit are severable, and if any provision of this permit or the Application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit shall not be affected thereby.

D. DUTIES AND REQUIREMENTS

1. Duty to Comply. The Permittee shall comply with all conditions of this permit, except to the extent and for the duration such noncompliance is authorized by an emergency permit issued under 40 CFR 270.61 as adopted in 15A NCAC 13A .0013. Any permit noncompliance constitutes a violation of N. C. Hazardous Waste Management Rules and NCGS 130A-Article 9 (Solid Waste Management Act as amended) and is grounds for enforcement action, permit termination, revocation and, reissuance, modification, or for denial of a permit renewal application.
2. Duty to Reapply. If the Permittee will continue an activity allowed or required by this permit after the expiration date of this permit, the Permittee shall submit a complete application for a new permit at least 180 days before this permit expires. The Permittee must continue post-closure monitoring and corrective action after the expiration date of this Permit unless permission to cease such activity has been granted by the Department.
3. Permit Review Period. This permit shall be reviewed by the Secretary of the Department of Environment, Health, and Natural Resources or his designee (hereafter referred to as Department) five (5) years after the date of issuance and modified as necessary as required under 40 CFR 270.50(d) as adopted in 15A NCAC 13A .0013.

4. Permit Expiration. This permit and all conditions therein will remain in effect beyond the permit's expiration date and until a decision is made concerning issuance of a new permit if the Permittee has submitted a timely, complete application (see 40 CFR 270.10-270.29 and 270.10 as adopted in 15A NCAC 13A .0013) and through no fault of the Permittee, the Department has not issued a new permit as set forth in 40 CFR 124.15 as adopted in 15A NCAC 13A .0005.
5. Need to Halt or Reduce Activity Not a Defense. It shall not be a defense for a Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
6. Duty to Mitigate. The Permittee shall take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with this permit.
7. Proper Operation and Maintenance. The Permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) used by the Permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facility or similar systems only when necessary to achieve compliance with the conditions of the permit.
8. Duty to Provide Information. The Permittee shall furnish to the Department, within a reasonable time, any relevant information which the Department requests to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The Permittee shall also furnish to the Department, upon request, copies of records required to be kept by this permit.
9. Inspection and Entry. The Permittee shall allow the Department, or an authorized representative, upon the presentation of credentials and other documents as may be required by law to:
 - a. Enter at reasonable times upon the Permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
 - b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
 - c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
 - d. Sample or monitor, at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the N. C. Hazardous Waste Management Rules, any substances or parameters at any location.
10. Monitoring and Records.
 - a. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. The method used to obtain a representative sample of the ground water to be analyzed

must be the appropriate method from Appendix III of 40 CFR Part 261 as adopted in 15A NCAC 13A .0006 and as stated in the ground-water sampling and analysis plan located in Section E.4.5. of the Application. Laboratory methods must be those specified in Appendix A of this permit.

- b. The Permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports and records required by this permit, and records of all data used to complete the Application for this permit for a period of at least three (3) years from the date of the sample, measurement, report or record. These periods may be extended by request of the Department at any time and are automatically extended during the course of any unresolved enforcement action regarding this facility.
- c. Records of monitoring information shall include:
- (1) The date, exact place, and time of sampling or measurements;
 - (2) The individual(s) who performed the sampling or measurements;
 - (3) The date(s) analyses were performed;
 - (4) The individual(s) who performed the analyses;
 - (5) The analytical techniques or methods used; and
 - (6) The results of such analyses.
11. Reporting Planned Changes. The Permittee shall give notice to the Department as soon as possible of any planned physical alterations or additions which may impact any Hazardous Waste Management Units (HWMUs), Solid Waste Management Units (SWMUs), Areas of Concern (AOCs), or the areas contaminated by them, including voluntary corrective measures to the SWMUs or AOCs referenced in Conditions IV.A.1., IV.A.3., and IV.A.4. at the permitted facility as defined in 40 CFR 270.2 as adopted in 15A NCAC 13A .0013.
12. Anticipated Noncompliance. The Permittee shall give advance notice to the Department of any planned physical alterations or additions which impact any SWMUs, or AOCs.
13. Transfer of Permits. This permit may be transferred to a new owner or operator only if it is modified or revoked and reissued pursuant to 40 CFR 270.40, 270.41 and 270.42 as adopted in 15A NCAC 13A .0013. Before transferring ownership or operation of the facility during its operating life, the Permittee shall notify the new owner or operator in writing of the requirements of 40 CFR 264 as adopted in 15A NCAC 13A .0009 and 40 CFR 270 as adopted in 15A NCAC 13A .0013.
14. Compliance Schedules. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than fourteen (14) days following each schedule date.
15. Twenty-four Hour Reporting. The Permittee shall report to the Department any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the Permittee becomes aware of the circumstances. The following shall be included as information which must be reported orally within 24 hours:
- a. Information concerning release of any hazardous waste that may cause an endangerment to public drinking water supplies.

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b. Any information of a release or discharge of hazardous waste, or of a fire or explosion from the facility, which could threaten the environment or human health outside the facility. The description of the occurrence and its cause shall include:

- (1) Name, address, and telephone number of the owner or operator;
- (2) Name, address, and telephone number of the facility;
- (3) Date, time, and type of incident;
- (4) Name and quantity of material(s) involved;
- (5) The extent of injuries, if any;
- (6) An assessment of actual or potential hazard to the environment and human health outside the facility, where this is applicable; and
- (7) Estimated quantity and disposition of recovered material that resulted from the incident.

A written submission shall also be provided within five (5) days of the time the Permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the periods of noncompliance (including exact dates and times), and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. The Permittee need not comply with the five-day written notice requirement if the Department, waives that requirement and the Permittee submits a written report within fifteen (15) days of the time the Permittee becomes aware of the circumstances.

16. Other Noncompliance. The Permittee shall report all other instances of noncompliance not otherwise required to be reported at the time monitoring reports are submitted. The reports shall contain the information listed in Condition I.D.15.
17. Other Information. When the Permittee becomes aware that he failed to submit any relevant facts in the permit application, or submitted incorrect information in a permit application or in any report to the Department, the Permittee shall promptly submit such facts or information.

E. SIGNATORY REQUIREMENTS

All reports or other information requested by the Department shall be signed and certified according to 40 CFR 270.11 as adopted in 15A NCAC 13A .0013.

F. DOCUMENTS TO BE MAINTAINED AT FACILITY SITE

The Permittee shall maintain at the facility, until post-closure activities are completed and certified by an independent registered professional engineer, the following documents and amendments, revisions and modifications to these documents:

1. Cost estimate for post-closure care submitted in accordance with 40 CFR 264.144 as adopted in 15A NCAC 13A .0009 and Section I.6.1 of the Application;
2. Operating record required by 40 CFR 264.73 as adopted in 15A NCAC 13A .0009, and Conditions I.D.10 and III.G. of this permit;
3. The ground-water sampling and analysis plan and Post-Closure Plan

(Section E.4.5 and Section I.5) of the Application and Condition III.G. and Appendix A of the permit;

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4. Inspection schedules developed in accordance with 40 CFR 264.15(b) as adopted in 15A NCAC 13A .0009 and Section F.2 of the Application;
 5. Ground-water monitoring records necessary to develop reports required by 40 CFR 264.100 as adopted in 15A NCAC 13A .0009 and this permit;
 6. Documentation of compliance with 40 CFR 264.116, 264.119, and 264.120 as adopted in 15A NCAC 13A .0009 and this permit;
 7. A survey plat and record of the type, location and quantity of hazardous waste or hazardous constituents disposed of within Lagoons 1, 2, and 4 as required by 40 CFR 264.119 as adopted in 15A NCAC 13A .0009 and this permit; and
 8. All reports and documentation of compliance with the post-closure plan as specified in 40 CFR 264.118(b)(1) and (2) as adopted in 15A NCAC 13A .0009 and this permit during the post-closure period.

All amendments, revisions and modifications to any plan or cost estimates required by this permit shall be submitted to the Department for approval and/or permit modification.

G. ANNUAL REPORT

The Permittee shall prepare and submit an annual report by March 1 of each year in accordance with 15A NCAC 13A .0001. The report shall include, in accordance with 40 CFR 264.75 as adopted in 15A NCAC 13A .0009, the following information for facility activities during the previous calendar year:

1. The EPA identification number, name, and address of the facility;
2. The calendar year covered by the report;
3. The most recent post-closure cost estimate under 40 CFR 264.144 as adopted in 15A NCAC 13A .0009; and
4. The certification signed by the owner or operator of the facility or his authorized representative.

H. DOCUMENTS TO BE SUBMITTED

The Permittee shall submit three (3) copies of any documents described below prior to operation.

1. If the Permittee chooses to perform the statistical evaluation as described in Appendix A, the Permittee shall submit the statistical evaluation not later than sixty (60) days after completion of the sampling.
2. The Permittee shall submit semi-annually sampling analysis results no later than sixty (60) days after the sampling has been completed.

I. DEFINITIONS

For purposes of this permit, terms used herein shall have the same meaning as those in the North Carolina Hazardous Waste Management Rules and Solid Waste Management Law unless this permit specifically provides otherwise; where terms are not defined in 15A NCAC 13A, G.S. 130A-Article 9, the permit, or EPA

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guidance documents or publications, the meaning associated with such terms shall be defined by a standard dictionary reference or the generally accepted scientific or industrial meaning of the term.

J. CONFIDENTIAL INFORMATION

The Permittee may claim confidential any information required to be submitted by this permit in accordance with 40 CFR 270.12 as adopted in 15A NCAC 13A .0013.

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- A. Authorized Waste. The Permittee is authorized to monitor and treat ground water and implement post-closure care of the closed surface impoundments in accordance with the conditions specified in this permit.
- B. Design and Operation of Facility. The Permittee shall maintain and operate the facility to minimize the possibility of a fire, explosion, or any unplanned sudden or nonsudden release of hazardous constituents to air, soil or surface water which could threaten human health or the environment.
- C. Security. The Permittee shall comply with the security provisions of 40 CFR 264.14(b) and (c) as adopted in 15A NCAC 13A .0009 and Section F.1 of the Application.
- D. General Inspection Requirements. The Permittee shall follow the inspection schedule as described in Section F.2 of the Application and shall comply with 40 CFR 264.15(c) and (d) as adopted in 15A NCAC 13A .0009.
- E. Record Keeping and Reporting.
1. Operating Record. The Permittee shall maintain a written operating record at the facility in accordance with 40 CFR 264.73(a), and (b) (8) and (b) (9) as adopted in 15A NCAC 13A .0009, and as described in the ground-water sampling and analysis plan.
 2. Annual Report. The Permittee shall comply with the annual report requirements of 40 CFR 264.75 as adopted in 15A NCAC 13A .0009 and 15A NCAC 13A .0001.
 3. Post-Closure Cost Estimate. The most recent post-closure cost estimate under 40 CFR 264.144 as adopted in 15A NCAC 13A .0009, must be submitted each year in accordance with 40 CFR 264.145 as adopted in 15A NCAC 13A .0009.
- F. Post-Closure. The Permittee shall monitor, maintain, and perform post-closure care of the facility as described in Section I.5 of the Application, and as required under 40 CFR 264.117 and 264.310 as adopted in 15A NCAC 13A .0009.
- G. Cost Estimate for Post-Closure. The Permittee's current post-closure cost estimate, prepared in accordance with 40 CFR 264.144(a) as adopted in 15A NCAC 13A .0009, is specified in Section I.6.1 of the Application.
1. The Permittee must annually adjust the post-closure cost estimate for inflation within sixty (60) days prior to the anniversary date of the establishment of the financial instrument required by 40 CFR 264.144(b) as adopted in 15A NCAC 13A .0009.
 2. The Permittee must revise the post-closure cost estimate whenever there is a change in the facility's Post-Closure Plan as required by 40 CFR 264.144(c) as adopted in 15A NCAC 13A .0009.
 3. The Permittee must keep at the facility the latest post-closure cost estimate as required by 40 CFR 264.144(d) as adopted in 15A NCAC 13A .0009.
 4. The Permittee shall amend the cost estimate to include cost of operation and maintenance of any ground-water monitoring or corrective action programs that may be implemented in the future in lieu of the monitoring requirements in this permit.

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H. Financial Assurance for Facility Post-Closure. The Permittee shall demonstrate continuous compliance with 15A NCAC 13A .0009(i) and 40 CFR 264.145 as adopted in 15A NCAC 13A .0009, or where applicable with 40 CFR 264.146, 264.149, 264.150, and 264.151 as adopted in 15A NCAC 13A .0009 and State Rule .0009(i) by providing documentation of financial assurance in at least the amount of the cost estimates required by Condition II.G and Section I.6.1 of the Application.

The financial mechanism used shall be that instrument specified in Section I.6.2 of the Application. The Permittee may propose using a different mechanism by submitting a new financial instrument to the Department for approval. The Permittee must submit this documentation no later than sixty (60) days prior to the effective date of the proposed change. The existing financial mechanism shall remain in force until the change is approved.

I. Cost Estimate for Completion of Corrective Action.

1. The Permittee shall prepare a cost estimate for the completion of any corrective action required under this permit for solid waste management units in order to provide financial assurance for completion of corrective action as required under 40 CFR 264.101(b) as adopted in 15A NCAC 13A .0009. Such cost estimate will be based upon the cost of operation, inspection, monitoring, and maintenance of the corrective action system to meet the requirements of 40 CFR 264.100 and 264.101 as adopted in 15A NCAC 13A .0009 and this permit to include any treatment system necessary for contaminated ground water.
2. The Permittee shall submit the cost estimate for completion of corrective action required under 40 CFR 264.101 as adopted in 15A NCAC 13A .0009 and this permit within thirty (30) days of approval of the corrective action plan by the Department.
3. The Permittee shall revise the cost estimate for corrective action within thirty (30) days after changing the corrective action plan for any reason.

J. Financial Assurance for Corrective Action.

1. The Permittee shall demonstrate continuous compliance with 40 CFR 264.101 as adopted in 15A NCAC 13A .0009 by providing documentation of financial assurance using a mechanism specified in 40 CFR 264.151 and 264.145 as adopted in 15A NCAC 13A .0009 or 15A NCAC 13A .0009(i) in at least the amount of the cost estimate required under Condition II.I. The words "completion of corrective action" shall be substituted for "closure and/or post-closure" as appropriate in the financial mechanism.
2. The Permittee shall submit financial assurance for completion of corrective action as required under 40 CFR 264.101 as adopted in 15A NCAC 13A .0009 no later than thirty (30) days prior to implementing the approved corrective action.

K. Incapacity of Owners or Operators, Guarantors, or Financial Institutions.

The Permittee shall comply with 40 CFR 264.148 as adopted in 15A NCAC 13A .0009 whenever necessary.

L. Special Conditions.

1. When a discrepancy exists between the wording of an item in the Application and this permit, the permit requirements take precedence over the Application.

2. When a discrepancy exists between the RCRA Facility Assessment (RFA) report (attached as Section L of the Application) and this permit as to the future requirements to be taken at the facility, the permit requirements take precedence over the requirements proposed in the report.

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PART III - POST-CLOSURE CARE

A. APPLICABILITY

The conditions of this Part apply to the closed surface impoundments (lagoons 1,2 and 4) as specified in 40 CFR 264.110(b)(2) as adopted in 15A NCAC 13A .0009.

B. POST-CLOSURE CARE PERIOD

Post-closure care procedures as described in Section I.5 of the Application and Appendix A of this permit shall continue throughout the effective period of this permit as specified in 40 CFR 264.117(a)(1) as adopted in 15A NCAC 13A .0009, unless otherwise modified under 40 CFR 264.117(a)(2) as adopted in 15A NCAC 13A .0009.

C. POST-CLOSURE CARE

1. The Permittee shall monitor and maintain the area that closed pursuant to 40 CFR Subpart G after January 26, 1983, for a minimum of thirty (30) years in accordance with Condition II.F. and as required under 40 CFR 264.117-120, 264.228, and 264.310 as adopted in 15A NCAC 13A .0009 and as described in the post-closure plan located in Section I.5 of the Application.
2. The Permittee shall provide and maintain the items required by Appendix A for post-closure care.

E. FINANCIAL ASSURANCE FOR POST-CLOSURE

The Permittee shall maintain compliance with Conditions II.G. and II.I. in the event of any revisions to the post-closure cost estimate due to additional post-closure care requirements.

F. FINANCIAL ASSURANCE FOR CORRECTIVE ACTION

The Permittee shall provide financial assurance for completion of corrective action for all regulated land disposal units that received hazardous waste after July 26, 1982, and for Solid Waste Management Units as specified in Condition II.J.

G. REPORTING, RECORD KEEPING, AND RESPONSE

The Permittee shall enter all monitoring, testing, analytical data, inspection, and maintenance reports obtained pursuant to Appendix A in the operating record, as required by 40 CFR 264.73(b)(6) as adopted in 15A NCAC 13A .0009.

A. APPLICABILITY

The Conditions of this Part apply to:

1. The solid waste management units (SWMUs) and areas of concern (AOCs) identified in Appendix B of the permit, which require further investigation.
2. The SWMUs identified in Appendix B which require no further investigation at this time or are addressed under the permit.
3. The SWMUs identified in Appendix B which require confirmatory sampling.
4. Any additional SWMUs or AOCs discovered during the course of ground-water monitoring, field investigations, environmental audits, or other means.
5. Corrective action beyond the facility boundary, if applicable. The Permittee shall implement corrective actions beyond the facility boundary where necessary to protect human health and the environment, unless the Permittee demonstrates to the satisfaction of the Department that, despite the Permittee's best efforts, as determined by the Department, the Permittee was unable to obtain the necessary permission to undertake such actions. The Permittee is not relieved of all responsibility to clean up a release that has migrated beyond the facility boundary where off-site access is denied. On-site measures to address such releases will be determined on a case-by-case basis. Assurances of financial responsibility for completion of such off-site action will be required.

B. DEFINITIONS

For purposes of this Part, the following definitions shall be applicable:

1. The term "area of concern" (AOC) includes any area having a probable release of a hazardous waste or hazardous constituent which is not from a solid waste management unit and is determined by the Department to pose a current or potential threat to human health or the environment. Such areas of concern may require investigations and remedial action as required under section 3005 (c) (3) of the Resource Conservation and Recovery Act and 40 CFR 270.32 (b) (2) as adopted in 15A NCAC 13A .0013 in order to insure adequate protection of human health and the environment.
2. A "Corrective Action Management Unit" (CAMU) includes any area within a facility that is designated by the Department under part 264 Subpart S, for the purpose of implementing corrective action requirements under 40 CFR 264.101 as adopted in 15A NCAC 13A .0009 and RCRA section 3008(h). A CAMU shall only be used for the management of remediation wastes pursuant to implementing such corrective action requirements at the facility.
3. "Corrective measures" include all corrective action necessary to protect human health and the environment for all releases of hazardous waste or hazardous constituents from any area of concern or solid waste management unit at the facility, regardless of the time at which waste was placed in the unit, as required under 40 CFR 264.101 as adopted by 15A NCAC 13A .0009. Corrective measures may address releases to air, soils, surface water or ground water.

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4. "Extent of contamination" is defined as the horizontal and vertical area in which the concentrations of the hazardous constituents in the environmental media are above detection limits or background concentrations indicative of the region, whichever is appropriate as determined by the Department.
5. "Facility" includes all contiguous land, and structures, other appurtenances, and improvements on the land, used for treating, storing, or disposing of hazardous waste. A facility may consist of several treatment, storage, or disposal operational units (e.g. one or more landfills, surface impoundments, or combination of them). For the purposes of implementing corrective action under 40 CFR 264.101 as adopted in 15A NCAC 13A .0009, a facility includes all contiguous property under the control of the owner or operator seeking a permit under Subtitle C of RCRA.
6. A "hazardous constituent" for the purposes of this permit are those substances listed in 40 CFR Part 261 Appendix VIII as adopted in 15A NCAC 13A .0006 or 40 CFR 264 Appendix IX as adopted in 15A NCAC 13A .0009.
7. "Interim Measures" are actions necessary to minimize or prevent the further migration of contaminants and limit actual or potential human and environmental exposure to contaminants while long-term corrective action remedies are evaluated and, if necessary, implemented.
8. The term "land disposal" means placement in or on the land except for a CAMU and includes, but is not limited to, placement in a landfill, surface impoundment, waste pile, injection well, land treatment facility, salt dome formation, underground mine or cave, or concrete vault or bunker intended for disposal purposes.
9. "Landfill" includes any disposal facility or part of a facility where hazardous waste is placed in or on the land and which is not a pile, a land treatment facility, a surface impoundment, an underground injection well, a salt dome formation, a salt bed formation, an underground mine, a cave, or a corrective action management unit.
10. A "release" for purposes of this permit includes any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment of any hazardous waste or hazardous constituents.
11. "Remediation waste" includes all solid and hazardous wastes, and all media (including ground water, surface water, soils, and sediments) and debris, which contain listed hazardous wastes or which themselves exhibit a hazardous waste characteristic, that are management for the purpose of implementing corrective action requirements under 40 CFR 264.101 as adopted in 15A NCAC 13A .0009 and RCRA section 3008 (h). For a given facility, remediation wastes originate only from within the facility boundary, but may include waste managed in implementing RCRA sections 3004 (v) or 3008 (h) for releases beyond the facility boundary.
12. The term "solid waste" means any garbage, refuse, sludge from a waste treatment plant, water supply treatment plant, or air pollution control facility and other discarded material, including solid, liquid, semi-solid, or contained gaseous material resulting from industrial, commercial, mining and agricultural operations, and from community activities, but does not include solid or dissolved material in domestic sewage, or solid or dissolved materials in irrigation return flows or industrial discharges that are point sources subject to permits under section 402 of the Federal Water Pollution Control Act, as amended (86

Stat. 880), or source, special nuclear, or by-product material as defined by the Atomic Energy Act of 1954, as amended (68 Stat. 923).

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13. A "solid waste management unit" (SWMU) for the purposes of this permit includes any unit which has been used for the treatment, storage, or disposal of solid waste at any time, irrespective of whether the unit is or ever was intended for management of solid waste. RCRA regulated hazardous waste management units are also solid waste management units. Solid Waste Management Units include areas which have become contaminated by routine and systematic releases of hazardous waste or hazardous constituents, excluding one-time accidental spills that are immediately remediated and cannot be linked to solid waste management activities (e.g., product or process spills).
14. A "Temporary Unit" (TU) includes any temporary tanks and/or container storage areas used solely for treatment or storage of hazardous remediation wastes during specific remediation activities. Designated by the Department, such units must conform to specific standards, and may only be in operation for a period of time as specified in this permit.
15. A "unit" for the purposes of this permit includes, but is not limited to, any landfill, surface impoundment, waste pile, land treatment unit, incinerator, injection well, tank, container storage area, septic tank, drain field, waste water treatment unit, elementary neutralization unit, transfer station, or recycling unit.

C. NOTIFICATION AND ASSESSMENT REQUIREMENTS FOR NEWLY IDENTIFIED SWMUs AND AOCs

1. The Permittee shall notify the Department in writing, within fifteen (15) calendar days of discovery, of any additional SWMUs as discovered under Condition IV.A.4.
2. The Permittee shall notify the Department in writing, within fifteen (15) calendar days of discovery, of any Areas of Concern (AOCs) as discovered under Condition IV.A.4. The notification shall include, at a minimum, the location of the AOC and all available information pertaining to the nature of the release (e.g., media affected, hazardous constituents released, magnitude of release, etc.). If the Department determines that further investigation of an AOC is required, the permit will be modified in accordance with 40 CFR 270.41 as adopted in 15A NCAC 13A .0013.
3. The Permittee shall prepare and submit to the Department, within ninety (90) calendar days of notification, a SWMU Assessment Report (SAR) for each SWMU identified under Condition IV.C.1. At a minimum, the SAR shall provide the following information:
 - a. Location of unit(s) on a topographic map of appropriate scale such as required under 40 CFR 270.14(b)(19) as adopted in 15A NCAC 13A .0013.
 - b. Designation of type and function of unit(s).
 - c. General dimensions, capacities and structural description of unit(s) (supply any available plans/drawings).
 - d. Dates that the unit(s) was operated.
 - e. Specification of all wastes that have been managed at/in the unit(s) to the extent available. Include any available data on hazardous constituents in the wastes.

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f. All available information pertaining to any release of hazardous waste or hazardous constituents from such unit(s) (to include ground-water data, soil analyses, air, and/or surface water data).

4. Based on the results for the SAR, the Department shall determine the need for further investigations at the SWMUs covered in the SAR. If the Department determines that such investigations are needed, the Permittee shall be required to prepare a plan for such investigations as outlined in Condition IV.F.1.b.

D. NOTIFICATION REQUIREMENTS FOR NEWLY DISCOVERED RELEASES AT PREVIOUSLY IDENTIFIED SWMUs and AOCs

1. The Permittee shall notify the Department in writing of any newly discovered release(s) of hazardous waste or hazardous constituents discovered during the course of ground-water monitoring, field investigations, environmental audits, or other means, within fifteen (15) calendar days of discovery. Such newly discovered releases may be from SWMUs or AOCs identified in Condition IV.A.2. or SWMUs or AOCs identified in Condition IV.A.4. for which further investigation under Condition IV.C.4. was not required.
2. If the Department determines that further investigation of the SWMUs and AOCs is needed, the Permittee shall be required to prepare a plan for such investigations as outlined in Condition IV.F.1.b.

E. CONFIRMATORY SAMPLING (CS)

1. The Permittee shall prepare and submit to the Department, within forty five (45) calendar days of the effective date of permit, or notification by the Department for a newly identified SWMU, a Confirmatory Sampling (CS) Work Plan to determine any release from SWMUs and AOCs identified in IV.A.3. and Appendix B. The CS Work Plan shall include schedules of implementation and completion of specific actions necessary to determine a release. It should also address applicable requirements and affected media.
2. The CS Work Plan must be approved by the Department, in writing, prior to implementation. The Department shall specify the start date of the CS Work Plan schedule in the letter approving the CS Work Plan. If the Department disapproves the CS Work Plan, the Department shall either (1) notify the Permittee in writing of the CS Work Plan's deficiencies and specify a due date for submission of a revised CS Work Plan, (2) revise the CS Work Plan and notify the Permittee of the revisions, or (3) conditionally approve the CS Work Plan and notify the Permittee of the conditions.
3. The Permittee shall implement the confirmatory sampling in accordance with the approved CS Work Plan.
4. The Permittee shall prepare and submit to the Department in accordance with the approved schedule, a Confirmatory Sampling (CS) Report, within sixty (60) calendar days after approval of the CS Work Plan, identifying those SWMUs and AOCs listed in Condition IV.A.3. that have released hazardous waste or hazardous constituents into the environment. The CS Report shall include all data, including raw data, and a summary and analysis of the data, that supports the above determination.
5. Based on the results of the CS Report, the Department shall determine the need for further investigations at the SWMUs and AOCs covered in the CS Report. If the Department determines that such investigations are

needed, the Permittee shall be required to prepare a plan for such investigations as outlined in Condition IV.F.1.b. The Department will notify the Permittee of any "no further action" decision.

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F. RCRA FACILITY INVESTIGATION (RFI)

1. RFI Work Plan(s)

- a. The Permittee shall prepare and submit to the Department, within ninety (90) calendar days of the effective date of this permit, a RCRA Facility Investigation (RFI) Work Plan for those units identified in Condition IV.A.1. This Work Plan shall be developed to meet the requirements of Condition IV.F.1.c.
- b. The Permittee shall prepare and submit to the Department, within ninety (90) calendar days of notification by the Department, an RFI Work Plan for those units identified under Condition IV.C.4., Condition IV.D.2. or Condition IV.E.5. This RFI Work Plan(s) shall be developed to meet the requirements of Condition IV.F.1.c.
- c. The RFI Work Plan(s) shall meet the requirements of Appendix C at a minimum. The Work Plan(s) shall include schedules of implementation and completion of specific actions necessary to determine the nature and extent of releases and the potential pathways of contaminant releases to the air, land, surface water, and ground water. The Permittee must provide sufficient justification and/or documentation that a release is not probable if a unit or a media/pathway associated with a unit (ground water, surface water, soil, subsurface gas, or air) is not included in the RFI Work Plan(s). Such deletions of a unit, media or pathway from the RFI(s) are subject to the approval of the Department. The Permittee shall provide sufficient written justification for any omissions or deviations from the minimum requirements of Appendix C. Such omissions or deviations are subject to the approval of the Department. The RFI Work Plan may be phased to allow for subsequent investigatory activity to be contingent upon the initial phase finding. If the scope of the Work Plan(s) is designed to be an initial phase, the initial phase must summarize all potential final phase activities needed to meet the requirements of this condition. In addition, the scope of the RFI Work Plan(s) shall include all investigations necessary to ensure compliance with 40 CFR 264.101(c) as adopted in 15A NCAC 13A .0009.
- d. The RFI Work Plan(s) must be approved by the Department, in writing, prior to implementation. The Department shall specify the start date of the RFI Work Plan schedule in the letter approving the RFI Work Plan(s). If the Department disapproves the RFI Work Plan(s), the Department shall either (1) notify the Permittee in writing of the RFI Work Plan's deficiencies and specify a due date for submission of a revised RFI Work Plan, (2) revise the RFI Work Plan and notify the Permittee of the revisions and the start date of the schedule within the approved RFI Work Plan, or (3) conditionally approve the RFI Work Plan and notify the Permittee of the conditions.

2. RFI Implementation

The Permittee shall implement the RFI(s) in accordance with the approved RFI Work Plan(s) and Appendix C. The Permittee shall notify the Department twenty (20) days prior to any sampling activity.

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3. RFI Reports

- a. If the time required to conduct the RFI(s) is greater than one hundred eighty (180) calendar days, the Permittee shall provide the Department with quarterly RFI Progress Reports (90 day intervals) beginning ninety (90) calendar days from the start date specified by the Department in the RFI Work Plan approval letter. The Progress Reports shall contain the following information at a minimum:
- i. A description of the portion of the RFI completed;
 - ii. Summaries of finding;
 - iii. Summaries of any deviations from the approved RFI Work Plan during the reporting period;
 - iv. Summaries of all contacts with local community public interest groups or State government;
 - v. Summaries of any problems or potential problems encountered during the reporting period;
 - vi. Actions taken to rectify problems;
 - vii. Changes in relevant personnel;
 - viii. Projected work for the next reporting period; and
 - ix. Copies of daily reports, inspection reports, laboratory/monitoring data, etc.
- b. The Permittee shall prepare and submit to the Department Draft and Final RCRA Facility Investigation Report(s) for the investigations conducted pursuant to the Work Plan(s) submitted under Condition V.F.1. The Draft RFI Report(s) shall be submitted to the Department for review in accordance with the schedule in the approved RFI Work Plan(s). The Final RFI Report(s) shall be submitted to the Department within thirty (30) calendar days of receipt of the Department's comments on the Draft RFI Report. The RFI Report(s) shall include an analysis and summary of all required investigations of SWMUs and AOCs and their results. The summary shall describe the type and extent of contamination at the facility, including sources and migration pathways, and a description of actual or potential receptors. The Report(s) shall also describe the extent of contamination (qualitative/ quantitative) in relation to background levels indicative of the area. If the Draft RFI Report is a summary of the initial phase investigatory work, the report shall include a Work Plan for the final phase investigatory actions required based on the initial findings. Approval of the final phase Work Plan shall be carried out in accordance with Condition IV.F.1.d. The objective of this task shall be to ensure that the investigation data are sufficient in quality (e.g., quality assurance procedures have been followed) and quantity to describe the nature and extent of contamination, potential threat to human health and/or the environment, and to support a Corrective Measures Study, if necessary.
- c. The Department will review the Final RFI Report(s) and notify the Permittee of the need for further investigative action and/or the need for a Corrective Measures Study to meet the requirements of

IV.H., Appendix E and 40 CFR 264.101 as adopted in 15A NCAC 13A .0009. The Department will notify the Permittee of any "no further action" decision. Any further investigative action required by the Department shall be prepared and submitted in accordance with a schedule specified by the Department and approved in accordance with Condition IV.F.1.d.

G. INTERIM MEASURES (IM)

1. IM Work Plan

- a. Upon notification by the Department, the Permittee shall prepare and submit an Interim Measures (IM) Work Plan for any SWMU or AOC which the Department determines is necessary. IM are necessary in order to minimize or prevent the further migration of contaminants and limit human and environmental exposure to contaminants while long-term corrective action remedies are evaluated and, if necessary, implemented. The IM Work Plan shall be submitted within thirty (30) calendar days of such notification and shall include the elements listed in IV.G.1.b. Such interim measures may be conducted concurrently with investigations required under the terms of this permit. The Permittee may initiate interim measures by submitting an IM Work Plan for approving implementation with reporting in accordance with the requirements under Condition IV.G.
- b. The IM Work Plan shall ensure that the interim measures are designed to mitigate any current or potential threat(s) to human health or the environment and to be consistent with and integrated into any long-term solution at the facility. The IM Work Plan shall include: the interim measures objectives, procedures for implementation (including any designs, plans, or specifications), and schedules for implementation.
- c. The IM Work Plan must be approved by the Department, in writing, prior to implementation. The Department shall specify the start date of the IM Work Plan schedule in the letter approving the IM Work Plan. If the Department disapproves the IM Work Plan, the Department shall either (1) notify the Permittee in writing of the IM Work Plan's deficiencies and specify a due date for submission of a revised IM Work Plan, (2) revise the IM Work Plan and notify the Permittee of the revisions and the start date of the schedule within the approved IM Work Plan, or (3) conditionally approve the IM Work Plan and notify the Permittee of the conditions.

2. IM Implementation

- a. The Permittee shall implement the interim measures in accordance with the approved IM Work Plan.
- b. The Permittee shall give notice to the Department as soon as possible of any planned changes, reductions, or additions to the IM Work Plan.
- c. Final approval of corrective action required under 40 CFR 264.101 as adopted in 15A NCAC 13A .0009 which is achieved through interim measures shall be in accordance with 40 CFR 270.41 as adopted in 15A NCAC 13A .0013 and Condition IV.I. as a permit modification.

3. IM Reports

- a. If the time required for completion of interim measures is greater

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than one (1) year, the Permittee shall provide the Department with progress reports at intervals specified in the approved IM Work Plan. The Progress Reports shall contain the following information at a minimum:

- i. A description of the portion of the interim measures completed;
 - ii. Summaries of any deviations from the IM Work Plan during the reporting period;
 - iii. Summaries of any problems or potential problems encountered during the reporting period;
 - iv. Projected work for the next reporting period; and
 - v. Copies of laboratory/monitoring data.
- b. The Permittee shall prepare and submit to the Department, within ninety (90) calendar days of completion of interim measures conducted under Condition IV.G., an IM Report. The IM Report shall contain the following information at a minimum:
- i. A description of interim measures implemented;
 - ii. Summaries of results;
 - iii. Summaries of any problems encountered;
 - iv. Summaries of accomplishments and/or effectiveness of interim measures; and
 - v. Copies of all relevant laboratory/monitoring data, etc. in accordance with Condition I.D.10.

H. CORRECTIVE MEASURES STUDY

1. Corrective Measures Study (CMS) Work Plan

- a. The Permittee shall prepare and submit a CMS Work Plan for those units requiring a CMS within ninety (90) calendar days of notification by the Department that a CMS is required. This CMS Work Plan shall be developed to meet the requirements of Condition IV.H.1.b.
- b. The CMS Work Plan shall meet the requirements of Appendix E. The CMS Work Plan shall include schedules of implementation and completion of specific actions necessary to complete a CMS. The Permittee must provide sufficient justification and/or documentation for any unit identified in accordance with Condition IV.H.1.a. which is deleted from the CMS Work Plan. Such deletion of a unit is subject to the approval of the Department. The CMS shall be conducted in accordance with the approved CMS Work Plan. The Permittee shall provide sufficient written justification for any omissions or deviations from the minimum requirements of Appendix E. Such omissions or deviations are subject to the approval of the Department. The scope of the CMS Work Plan shall include all investigations necessary to ensure compliance with 3005(c)(3), 40 CFR 264.101, 264.552 as adopted in 15A NCAC 13A .0009, and 270.32(b)(2) as adopted in 15A NCAC 13A .0013. The Permittee shall implement corrective actions beyond the facility boundary as set forth in Condition IV.A.5.

- c. The Department shall either approve or disapprove, in writing, the CMS plan. If the Department disapproves the CMS Work Plan, the Department shall either (1) notify the Permittee in writing of the CMS Work Plan's deficiencies and specify a due date for submittal of a revised CMS Work Plan, (2) revise the CMS Work Plan and notify the Permittee of the revisions, or (3) conditionally approve the CMS Work Plan and notify the Permittee of the conditions. This modified CMS Work Plan becomes the approved CMS Work Plan.

2. Corrective Measures Study Implementation

The Permittee shall begin to implement the Corrective Measures Study according to the schedules specified in the CMS Work Plan, no later than fifteen (15) calendar days after the Permittee has received written approval from the Department for the CMS Work Plan. The CMS shall be conducted in accordance with the approved CMS Work Plan approved in accordance with Condition IV.H.1.c.

3. CMS Report

- a. The Permittee shall prepare and submit to the Department a draft and final CMS Report for the study conducted pursuant to the approved CMS Work Plan. The draft CMS Report shall be submitted to the Department in accordance with the schedule in the approved CMS Work Plan. The final CMS Report shall be submitted to the Department within thirty (30) calendar days of receipt of the Department's comments on the draft CMS Report. The CMS Report shall summarize any bench-scale or pilot tests conducted. The CMS Report must include an evaluation of each remedial alternative. If a remedial alternative requires the use of a CAMU, the CMS Report shall include all information necessary to establish and implement the CAMU. The CMS Report shall present all information gathered under the approved CMS Work Plan. The CMS Final Report must contain adequate information to support the Department's decision on the recommended remedy, described under Permit Condition IV.I.
- b. If the Department determines that the CMS Final Report does not fully satisfy the information requirements specified under Permit Condition IV.H.3.a., the Department may disapprove the CMS Final Report. If the Department disapproves the CMS Final Report, the Department shall notify the Permittee in writing of deficiencies in the CMS Final Report and specify a due date for submittal of a revised CMS Final Report. The Department will notify the Permittee of any no further action decision.
- c. As specified under Permit Condition IV.H.3.a., based on preliminary results and the CMS Final Report, the Department may require the Permittee to evaluate additional remedies or particular elements of one or more proposed remedies.

I. REMEDY APPROVAL AND PERMIT MODIFICATION

1. A remedy shall be selected by the Department from the remedial alternatives evaluated in the CMS. The remedy will be based at a minimum on protection of human health and the environment, as per specific site conditions, existing regulations, and guidance.
2. Pursuant to 40 CFR 270.41 as adopted in 15A NCAC 13A .0013, a permit modification will be initiated by the Department upon concurrence of a remedy selected in accordance with Condition IV.I.1. This modification

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will serve to incorporate a final remedy, including a CAMU if necessary, into the permit.

3. Within one hundred and twenty (120) calendar days after this Permit has been modified, the Permittee shall demonstrate financial assurance for completing the approved remedy.

J. MODIFICATION OF THE CORRECTIVE ACTION SCHEDULE OF COMPLIANCE

1. If at any time the Department determines that modification of the Corrective Action Schedule of Compliance is necessary, the Department may initiate a modification to the Schedule of Compliance, Appendix D.
2. Modifications that are initiated and finalized by the Department will be in accordance with the applicable provisions of 40 CFR Part 270 as adopted in 15A NCAC 13A .0013. The Permittee may also request a permit modification in accordance with 40 CFR 270 to change the schedule of compliance.

K. IMMINENT HAZARDS

1. The Permittee shall report to the Department any imminent or existing hazard to public health or the environment from any release of hazardous waste or hazardous constituents. Such information shall be reported orally within 24 hours from such time the Permittee becomes aware of the circumstances. This report shall include the information specified under Condition I.D.15.
2. A written report shall also be provided to the Department within fifteen (15) calendar days of the time the Permittee becomes aware of the circumstances. The written report shall contain the information specified under Condition I.D.15. and; a description of the release and its cause; the period of the release; whether the release has been stopped; and if not, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the release.

L. PLAN AND REPORT REQUIREMENTS

1. All plans and schedules shall be subject to approval by the Department prior to implementation to assure that such work plans and schedules are consistent with the requirements of this Permit and with applicable regulations and guidance. The Permittee shall revise all submittals and schedules as specified by the Department. Upon approval, the Permittee shall implement all plans and schedules as written.
2. All work plans and reports shall be submitted in accordance with the approved schedule. Extensions of the due date for submittals may be granted by the Department based on the Permittee's demonstration that sufficient justification for the extension exists.
3. If the Permittee at any time determines that the SAR information required under Condition IV.C., or RFI Work Plan(s) required under Condition IV.F., no longer satisfy the requirements of 40 CFR 264.101 as adopted in 15A NCAC 13A .0009 or this permit for prior or continuing releases of hazardous waste or hazardous constituents from solid waste management units and/or areas of concern, the Permittee shall submit an amended RFI Work Plan(s) to the Department within ninety (90) calendar days of such determination.
4. All reports shall be signed and certified in accordance with 40 CFR

5. Three (3) copies of all reports and plans shall be provided by the Permittee to the Department at the following address:

Mr. James A. Carter, Chief
Hazardous Waste Section
Solid Waste Management Division
Post Office Box 27687
Raleigh, North Carolina 27611-7687

A. GENERAL REQUIREMENTS

In the event that the Permittee treats, stores, or disposes of hazardous wastes on-site where such wastes were generated, then the Permittee must comply with 40 CFR 264.73(b)(9) as adopted in 15A NCAC 13A 0009, and section 3005(h) of RCRA, 42 U.S.C. 6925(h). The Permittee must certify, no less often than annually that:

1. The Permittee has a program in place to reduce the volume and toxicity of hazardous waste to the degree determined by the Permittee to be economically practicable; and
2. The proposed method of treatment, storage or disposal is the most practicable method available to the Permittee which minimizes the present and future threat to human health and the environment.

B. WASTE MINIMIZATION RECORD KEEPING

The Permittee shall maintain copies of certification in the facility operating record as required by 40 CFR 264.73(b)(9) as adopted in 15A NCAC 13A .0009.

C. WASTE MINIMIZATION PROGRAM OBJECTIVES

If Condition V.A. is applicable, then the Waste Minimization program required under V.A. above should address the objectives listed in Appendix F.

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A. GENERAL RESTRICTIONS

1. 40 CFR Part 268 as adopted in 15A NCAC 13A .0012 identifies hazardous wastes that are restricted from land disposal and defines those limited circumstances which an otherwise prohibited waste may continue to be placed on or in a land treatment, storage or disposal unit. The Permittee shall maintain compliance with the requirements of 40 CFR 268 as adopted in 15A NCAC 13A .0012. Where the Permittee has applied for an extension, waiver or variance under 40 CFR 268 as adopted in 15A NCAC 13A .0012 the Permittee shall comply with all restrictions on land disposal under this Part once the effective date for the waste has been reached pending final approval of such application.

B. LAND DISPOSAL PROHIBITIONS AND TREATMENT STANDARDS

1. A restricted waste identified in 40 CFR Part 268 Subpart C as adopted in 15A NCAC 13A .0012 may not be placed in a land disposal unit without further treatment unless the requirements of 40 CFR Part 268 Subparts C and/or D as adopted in 15A NCAC 13A .0012 are met.
2. The storage of hazardous wastes restricted from land disposal under 40 CFR Part 268 as adopted in 15A NCAC 13A .0012 is prohibited unless the requirements of 40 CFR 268 Subpart E as adopted in 15A NCAC 13A .0012 are met.

C. DEFINITIONS

1. For the purposes of 40 CFR Part 268 as adopted in 15A NCAC 13A .0012, "Land Disposal" means placement in or on the land and includes, but is not limited to, placement in a landfill, surface impoundment, waste pile, injection well, land treatment facility, salt dome formation, underground mine or cave, or concrete vault or bunker intended for disposal purposes.

GENERAL INTRODUCTION

In the June 21, 1990, Federal Register, EPA published the final rule for Phase I Organic Air Emission Standards (40 CFR Parts 264 and 265, Subparts AA and BB) for hazardous waste treatment, storage, and disposal facilities. Subpart AA contains emission standards for process vents associated with distillation fractionation, thin-film evaporation, solvent extraction, and air or steam stripping operations that process hazardous waste with an annual average total organic concentration of at least ten (10) parts per million (ppm) by weight. SUBPART AA DOES NOT APPLY TO AIR STRIPPING OPERATIONS USED FOR CORRECTIVE ACTION PURPOSES. Subpart BB contains emission standards that address leaks from specific equipment (i.e. pumps, valves, compressors, etc.) that contains or contacts hazardous waste that has an organic concentration of at least ten (10) percent by weight.

ORGANIC AIR EMISSION STANDARDS

The Permittee has no units at the present time to which the Organic Air Emissions Requirements of 40 CFR 264, Subpart AA (for process vents), and/or Subpart BB (for equipment leaks) as adopted in 15A NCAC 13A .0013 applies. If the Permittee should change, modify or otherwise identify any unit that is or has become subject to these regulations, the Permittee is required to comply with all 40 CFR 264 as adopted in 15A NCAC 13A .0009, Subpart AA and Subpart BB regulations and is required to submit all 40 CFR 270.24 and 270.25 as adopted in 15A NCAC 13A .0013 informational requirements within thirty (30) calendar days after implementation of the unit's modification.

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APPENDIX A

GROUND-WATER SAMPLING AND ANALYSIS

GROUND-WATER SAMPLING AND ANALYSIS

QUARTERLY SAMPLING REQUIREMENTS

1. Quarterly sampling shall begin no later than ninety (90) days following the effective date of the permit. Wells MW1, MW2, MW3, MW4, MW5 and MW6 shall be sampled and analyzed for the parameters listed below.

<u>PARAMETER</u>	<u>METHOD*</u>
Arsenic	7061A
Barium	6010A
Cadmium	6010A
Calcium	6010A
Chloride	9251
Chromium	6010A
Cobalt	6010A
Lead	7420
Magnesium	6010A
Manganese	6010A
Nitrates	600/R-93-100 353.2
Sodium	6010A
Zinc	6010A
Tetrachloroethene	8260
1,2,4 Trichlorobenzene	8260
pH	Field Measurement
Conductivity	Field Measurement
Temperature	Field Measurement
Water level	Field Measurement

Note: All methods without prefix are from SW 846 Test Methods For Evaluated Solid Waste, 3rd Edition, available from the Government Printing Office, Washington, DC, as publication number 055-002-81001-2.

* Listed method should be used or equivalent.

2. The Permittee shall record the water level in all monitoring wells before the groundwater is sampled each time.
3. The Permittee shall determine the groundwater flow rate and direction in the uppermost aquifer at least annually beginning one (1) year from the effective date of the permit. This information shall be submitted in the form of a groundwater potentiometric map, and groundwater velocity calculations, along with all the data used to make these determinations.
4. The Permittee shall use direct comparison from the background well and downgradient wells to determine any significant increase in monitored parameters. When evaluating the monitoring results the Permittee shall use the statistical procedures specified in Section E in the Application, in accordance with 40 CFR 264.97(h)(1) as adopted in 15A NCAC 13A .0009.
5. If the Permittee chooses to perform a statistical evaluation, the Permittee shall perform the statistical evaluation within sixty (60) days after completion of sampling.
6. The Permittee shall enter all monitoring, testing, and analytical data

obtained pursuant to Appendix A in the operating record, as required by 40 CFR 264.73(b)(6) as adopted in 15A NCAC 13A .0009.

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7. The Permittee shall report quarterly concentration levels for constituents identified in Appendix A to the Department within sixty (60) days after completion of the ground-water sampling event.

SAMPLING AND ANALYSIS PROCEDURES

The Permittee shall use the following techniques and procedures when obtaining samples and analyzing samples from the groundwater monitoring wells:

1. Samples shall be collected by the techniques described on page 9 of the groundwater sampling and analysis plan found in Appendix E-8, Volume 3 of the Application.
2. Samples shall be preserved and shipped (when shipped off-site for analysis) in accordance with the procedures specified on page 9 of the groundwater sampling and analysis plan found in Appendix E-8, Volume 3 of the Application;
3. Samples shall be analyzed according to the procedures specified in Appendix A of this permit and any subsequent procedure specified by the Department;
4. Samples shall be tracked and controlled using the chain of custody procedures specified on page 9 of the groundwater sampling and analysis plan found in Appendix E-8, Volume 3 of the Application;
5. Samples shall be obtained using bailers or pumps and other sampling equipment that will not significantly interfere with the analysis; and
6. The sampling and analysis plan shall be updated to reflect any changes approved or required by the Department.

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APPENDIX B

SOLID WASTE MANAGEMENT UNITS AND AREAS OF CONCERN SUMMARY

SOLID WASTE MANAGEMENT UNITS AND AREAS OF CONCERN SUMMARY

List of Solid Waste Management Units and Areas of Concern currently included in the RFI workplan:

<u>SWMU/AOC No.</u>	<u>Description</u>
5	Lagoon #5
13	Copper Solution Production Sludge Collection Area
18	Waste Oil Storage Area
23	Zinc Nitrate/Calcium Nitrate Reaction Vessel Scrubbers
24	Zinc Nitrate/Calcium Nitrate Reaction Vessel Scrubbers
27	Old Zinc Chloride Production Facility
32	Off-Spec Product Waste Storage Area
33	Copper Kettle Waste Drum Storage Area
37	Equipment Storage Area
39	Truck Washing Area
42	Old Zinc Chloride Production Facility
43	Copper Chromate Production Facility Floor Hole
44	Fiberglass Tank #1
45	Fiberglass Tank #2
48	Chromic Acid Sparger Dike and Sump
51	Ultrawood Mix Tank Dike and Sump
52	Loading Weigh Scale Bridge Dike and Sump
53	198 (Arsenic Acid) Plant Dike and Sump Pits (2)
55	Refinery Dike and Sump Pit
56	CCA Production Area Sumps
58	Boiler Blowdown Collection Concrete Box and Sumps
60	Stained Soil Outside of Maintenance Truck Bay
61	Maintenance Truck Bay Floor Drain
62	Maintenance Shop Floor Drain
64	Release From a Temporary Sludge Roll Off Box
65	Release From a Temporary Sludge Roll Off Box
66	Release From a Temporary Sludge Roll Off Box
69	Liquid Chromic Acid Storage and Wastewater Dikes and Sumps
78	198 Glycol Recirculation Pump Curb
81	Sodium Dichromate Storage Tank Dike and Sump
84	198 Plant Storage Tank in the CCA Production Area
87	Copper Sulfate Storage Tank Dike and Sump
89	Storage Tanks T-177/178 Dike and Sump
91	Zinc Chloride/Preact Storage Tanks Dike and Sump
92	Calcium Nitrate Storage Tank Dike and Sump
96	Natural Drain Trench From Office Parking Lot to Rocky River
97	Site Storm Drain Network (Including Piping and Sump)
99	Railroad Track Plan
100	Drumming Area Warehouse #2

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List of Solid Waste Management Units that require no further action at this time:

<u>SWMU/AOC No.</u>	<u>Description</u>
6	Wastewater Treatment Plant Pit Area
7	Magnesium Chlorides Sludge Slurry Tank
8	Limestone Pit
9	CCA Waste Filter Cartridge/Sludge Accumulation Area
10	Nitrates Production Sludge Collection Area
11	Magnesium Chlorides Production Sludge Collection Area
12	Arsenic Acid Production Sludge Collection Area
14	Drummed Hazardous Waste Accumulation Area (Warehouse #2)
15	Container Waste Accumulation Area No. 1 (Warehouse #1)
16	Container Waste Accumulation Area No. 2 (Warehouse #1)
17	Less Than 30 Day Accumulation Area
19	Warehouse 1 East Loading/Unloading Dock
20	Warehouse 1 West Loading/Unloading Dock
21	Warehouse 2 East Loading/Unloading Dock
22	Sodium Dichromate Mix Tank Scrubber
25	ORA-COP Mixing Tank Scrubber
26	Production Area Sumps
28	Settlement Tanks
29	Wastewater Pipeline
30	Sodium Dichromate Filter Sludge Accumulation Area
31	Chloride Sludge Accumulation Area
34	Laboratory Sump
35	Production Area Spill Collection Sump
38	Metal Scrap Dumpster
40	Drum Washing Machine
41	Copper Sludge Pit
46	New Arsenic Trioxide Storage Warehouse, Receiving Dock Sump
47	Trash Dumpsters (2)
49	Calcium Nitrate Filter Sludge Collection Area
50	Calcium Nitrate Scrubber Dike and Sump
54	Magnesium Chloride Production Pits(3)
57	Arsenic Trioxide Bulk Bag Receiving Area
59	Arsenic Acid Storage Tanks Dikes and Sumps
63	Industrial Area Sludge Dumpsters
67	Nitric Acid Storage Tank Dike and Sump
68	Concrete Scale Loading Area Spill Containment
70	Large CCA Reactor Dike and Sump
71	CCA 50% and 60% Storage Tanks Dikes and Sumps (2)
72	Trash Dumpster
73	Copper Count-N Filtration Area
74	198 Plant Hydrogen Peroxide Storage Tank Dike
75	198 Plant Nitric Acid Storage Tank Dike and Sump
76	198 Plant Holding Tanks #5 and #6 Dike and Sump
77	Hydrogen Peroxide Terminal Containment Dike and Sump
79	198 Plant Silo #1 Dike and Sump
80	Automatic Drum Facility Floor Drain and Drum Washer Support Dike and Sump
82	Hydrogen Peroxide Terminal Loading Area Spill Catchment
83	D-Blaze Production Area Dike and Sump
85	Propionic Acid Storage Tank Dike and Sump
86	Aluminum Nitrate Storage Tank Dike and Sump
88	Phosphoric Acid Storage Tank Dike and Sump
90	D-Blaze Storage Tank Dike and Sump
93	Air Compressor Containment Curbing (2)
94	198 Plant Weigh Tank Dike and Sump

List of Solid Waste Management Units that require no further action at this time:
(Continued)

<u>SWMU/AOC No.</u>	<u>Description</u>
95	Copper Count-N Drumming Area Containment Curbing (2)
98	New Arsenic Acid Storage Tank Dike and Sump
100	Industrial Products Drumming Area Floor Trough
101	Copper Count-N Storage Tanks Dike

List of Solid Waste Management Units that closed pursuant to 40 CFR 265 Subpart G after January 26, 1983 but ceased waste receipt prior to July 26, 1982 for which groundwater contamination is addressed in the RFI Workplan:

<u>SWMU/AOC No.</u>	<u>Description</u>
1	Lagoon #1
2	Lagoon #2
3	Lagoon #3
4	Lagoon #4

List of Solid Waste Management Units requiring an RFI:

<u>SWMU/AOC No.</u>	<u>Description</u>
36	Truck Loading Spill Collection Drain and Sump

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APPENDIX C

RCRA FACILITY INVESTIGATION (RFI) WORK PLAN OUTLINE

APPENDIX C

RCRA FACILITY INVESTIGATION (RFI) WORK PLAN OUTLINEI. RFI Work Plan REQUIREMENTS

The Permittee shall prepare a RCRA Facility Investigation (RFI) Work Plan that meets the requirements of Part II of this document and the RFI Guidance, EPA-530/SW-89-031. This Work Plan shall also include the development of the following plans, which shall be prepared concurrently:

A. Project Management Plan

Permittee shall prepare a Project Management Plan which will include a discussion of the technical approach, schedules and personnel. The Project Management Plan will also include a description of qualifications of personnel performing or directing the RFI, including contractor personnel. This plan shall also document the overall management approach to the RCRA Facility Investigation.

B. Sampling and Analysis Plan(s)

The Permittee shall prepare a plan to document all monitoring procedures: field sampling, sampling procedures and sample analysis performed during the investigation to characterize the environmental setting, source, and releases of hazardous constituents, so as to ensure that all information and data are valid and properly documented. The Sampling Strategy and Procedures shall be in accordance with Characterization of Hazardous Waste Sites A Methods Manual: Volume II., Available Sampling Methods, EPA-600/4-84-076, or EPA Region IV Engineering Compliance Branch's Standard Operating Procedure and Quality Assurance Manual (SOP). Any deviations from these references must be requested by the applicant and approved by EPA. The Sampling and Analysis Plan must specifically discuss the following unless the EPA-600/4-84-076 or SOP procedures are specifically referenced.

1. Sampling Strategy

- a. Selecting appropriate sampling locations, depths, etc.;
- b. Obtaining all necessary ancillary data;
- c. Determining conditions under which sampling should be conducted;
- d. Determining which media are to be sampled (e.g., ground water, air, soil, sediment, subsurface gas);
- e. Determining which parameters are to be measured and where;
- f. Selecting the frequency of sampling and length of sampling period;
- g. Selecting the types of samples (e.g., composites vs. grabs) and number of samples to be collected.

Sampling Procedures

- a. Documenting field sampling operations and procedures, including;
 - i. Documentation of procedures for preparation of reagents or supplies which become an integral part of the sample (e.g., filters, preservatives, and absorbing reagents);
 - ii. Procedures and forms for recording the exact location and specific considerations associated with sample acquisition;
 - iii. Documentation of specific sample preservation method;
 - iv. Calibration of field instruments;
 - v. Submission of field-biased blanks, where appropriate;
 - vi. Potential interferences present at the facility;
 - vii. Construction materials and techniques, associated with monitoring wells and piezometer;
 - viii. Field equipment listing and sampling containers;
 - ix. Sampling order; and
 - x. Decontamination procedures.
- b. Selecting appropriate sample containers;
- c. Sampling preservation; and
- d. Chain-of-custody, including:
 - i. Standardized field tracking reporting forms to establish sample custody in the field prior to shipment; and
 - ii. Pre-prepared sample labels containing all information necessary for effective sample tracking.

3. Sample Analysis

Sample analysis shall be conducted in accordance with SW-846: "Test Methods for Evaluating Solid Waste-Physical/Chemical Methods" (third edition). The sample analysis section of the Sampling and Analysis Plan shall specify the following:

- a. Chain-of-custody procedures, including:
 - i. Identification of a responsible party to act as sampling custodian at the laboratory facility authorized to sign for incoming field samples, obtain documents of shipments, and verify the data entered onto the sample custody records;
 - ii. Provision for a laboratory sample custody log consisting of serially numbered standard lab-tracking report sheets; and

- iii. Specification of laboratory sample custody procedures for sample handling, storage, and dispersement for analysis.
 - b. Sample storage;
 - c. Sample preparation methods;
 - d. Analytical Procedures, including:
 - i. Scope and application of the procedure;
 - ii. Sample matrix;
 - iii. Potential interferences;
 - iv. Precision and accuracy of the methodology; and
 - v. Method detection limits.
 - e. Calibration procedures and frequency;
 - f. Data reduction, validation and reporting;
 - g. Internal quality control checks, laboratory performance and systems audits and frequency, including:
 - i. Method blank(s);
 - ii. Laboratory control samples(s);
 - iii. Calibration check samples(s);
 - iv. Replicate samples(s);
 - v. Matrix-spiked sample(s);
 - vi. Control charts;
 - vii. Surrogate samples;
 - viii. Zero and span gases; and
 - ix. Reagent quality control checks.
 - h. Preventative maintenance procedures and schedules;
 - i. Corrective action (for laboratory problems); and
 - j. Turnaround time.
- C. Data Management Plan

The Permittee shall develop and initiate a Data Management Plan to document and track investigation data and results. This plan shall identify and set up data documentation materials and procedures, project file requirements, and project-related progress reporting procedures and documents. The plan shall also provide the format to be used to present the raw data and conclusions of the investigation.

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1. Data Record

The data record shall include the following:

- a. Unique sample or field measurement code;
- b. Sampling or field measurement location and sample or measurement type;
- c. Sampling or field measurement raw data;
- d. Laboratory analysis ID number;
- e. Property or component measures; and
- f. Result of analysis (e.g., concentration).

2. Tabular Displays

The following data shall be presented in tabular displays:

- a. Unsorted (raw) data;
- b. Results for each medium, or for each constituent monitored;
- c. Data reduction for statistical analysis, as appropriate;
- d. Sorting of data by potential stratification factors (e.g., location, soil layer, topography); and
- e. Summary data.

3. Graphical Displays

The following data shall be presented in graphical formats (e.g., bar graphs, line graphs, area or plan maps, isopleth plots, cross-sectional plots or transits, three dimensional graphs, etc.):

- a. Display sampling location and sampling grid;
- b. Indicate boundaries of sampling area, and area where more data are required;
- c. Display geographical extent of contamination;
- d. Illustrate changes in concentration in relation to distances from the source, time, depth or other parameters; and
- e. Indicate features affecting inter-media transport and show potential receptors.

II. RCRA FACILITY INVESTIGATION (RFI) REQUIREMENTS

RCRA Facility Investigation:

The Permittee shall conduct those investigations necessary to: characterize the facility (Environmental Setting); define the source (Source Characterization); define the degree and extent of release of hazardous constituents (Contamination Characterization); and identify actual or

potential receptors.

The investigations should result in data of adequate technical content and quality to support the development and evaluation of the corrective action plan if necessary. The information contained in a RCRA Part B permit application and/or RCRA section 3019 Exposure Information Report may be referenced as appropriate, but must be summarized in both the RFI Work Plan and RFI Report.

All sampling and analyses shall be conducted in accordance with the Sampling and Analysis Plan. All sampling locations shall be documented in a log and identified on a detailed site map.

A. Environmental Setting

The Permittee shall collect information to supplement and/or verify Part B information on the environmental setting at the facility. The Permittee shall characterize the following as they relate to identified sources, pathways and areas of releases of hazardous constituents from Solid Waste Management Units.

1. Hydrogeology

The Permittee shall conduct a program to evaluate hydrogeologic conditions at the facility. This program shall provide the following information:

- a. A description of the regional and facility specific geologic and hydrogeologic characteristics affecting ground-water flow beneath the facility, including:
 - i. Regional and facility specific stratigraphy: description of strata including strike and dip, identification of stratigraphic contacts;
 - ii. Structural geology: description of local and regional structural features (e.g., folding, faulting, tilting, jointing, etc.);
 - iii. Depositional history;
 - iv. Regional and facility specific ground-water flow patterns; and
 - v. Identification and characterization of areas and amounts of recharge and discharge.
- b. An analysis of any topographic features that might influence the ground-water flow system.
- c. Based on field data, tests, and cores, a representative and accurate classification and description of the hydrogeologic units which may be part of the migration pathways at the facility (i.e., the aquifers and any intervening saturated and unsaturated units), including:
 - i. Hydraulic conductivity and porosity (total and effective);
 - ii. Lithology, grain size, sorting, degree of cementation;

- iii. An interpretation of hydraulic interconnections between saturated zones; and
 - iv. The attenuation capacity and mechanisms of the natural earth materials (e.g., ion exchange capacity, organic carbon content, mineral content, etc.).
- d. Based on data obtained from ground-water monitoring wells and piezometers installed upgradient and downgradient of the potential contaminant source, a representative description of water level or fluid pressure monitoring including:
- i. Water-level contour and/or potentiometric maps;
 - ii. Hydrologic cross-sections showing vertical gradients;
 - iii. The flow system, including the vertical and horizontal components of flow; and
 - iv. Any temporal changes in hydraulic gradients, for example, due to tidal or seasonal influences.
- e. A description of man-made influences that may affect the hydrology of the site, identifying:
- i. Local water-supply and production wells with an approximate schedule of pumping; and
 - ii. Man-made hydraulic structures (pipelines, trench drains, ditches, etc.)

2. Soils

The Permittee shall conduct a program to characterize the soil and rock units above the water table in the vicinity of contaminant release(s). Such characterization may include, but not be limited to, the following types of information as appropriate:

- a. Surface soil distribution;
- b. Soil profile, including ASTM classification of soil;
- c. Transects of soil stratigraphy;
- d. Hydraulic conductivity (saturated and unsaturated);
- e. Relative permeability;
- f. Bulk density;
- g. Porosity;
- h. Soil sorption capacity;
- i. Cation exchange capacity (CEC);
- j. Soil organic content;
- k. Soil pH;
- l. Particle size distribution;
- m. Depth of water table;
- n. Moisture content;
- o. Effect of stratification on unsaturated flow;
- p. Infiltration;
- q. Evapotranspiration;
- r. Storage capacity;
- s. Vertical flow rate; and
- t. Mineral content.

3. Surface Water and Sediment

The Permittee shall conduct a program to characterize the surface water bodies in the vicinity of the facility. Such characterizations may include, but not be limited to, the following activities and information:

- a. Description of the temporal and permanent surface water bodies including:
 - i. For lakes and estuaries: location, elevation, surface area, inflow, outflow, depth, temperature stratification, and volume;
 - ii. For impoundments: location, elevation, surface area, depth, volume, freeboard, and construction and purpose;
 - iii. For streams, ditches, and channels: location, elevation, flow, velocity, depth, width, seasonal fluctuations, flooding tendencies (i.e., 100 year event), discharge point(s), and general contents.
 - iv. Drainage patterns; and
 - v. Evapotranspiration.
- b. Description of the chemistry of the natural surface water and sediments. This includes determining the pH, total dissolved solids, total suspended solids, biological oxygen demand, alkalinity, conductivity, oxygen demand, total organic carbon, specific contaminant concentrations, etc.
- c. Description of sediment characteristics including:
 - i. Deposition area;
 - ii. Thickness profile; and
 - iii. Physical and chemical parameters (e.g., grain size, density, organic carbon content, ion exchange capacity, pH, etc.)

4. Air

The Permittee shall provide information characterizing the climate in the vicinity of the facility. Such information may include, but not be limited to:

- a. A description of the following parameter:
 - i. Annual and monthly rainfall averages;
 - ii. Monthly temperature averages and extremes;
 - iii. Wind speed and direction;
 - iv. Relative humidity/dew point;
 - v. Atmospheric pressure;
 - vi. Evaporation data;

- vii. Development of inversions; and
 - viii. Climate extremes that have been known to occur in the vicinity of the facility, including frequency of occurrence (i.e., Hurricanes).
- b. A description of topographic and man-made features which affect air flow and emission patterns, including:
- i. Ridges, hills or mountain area;
 - ii. Canyons or valleys;
 - iii. Surface water bodies (e.g., rivers, lakes, bays, etc.); and
 - iv. Buildings.

B. Source Characterization

For those sources from which releases of hazardous constituents have been detected the Permittee shall collect analytical data to completely characterize the wastes and the areas where wastes have been placed, to the degree that is possible without undue safety risks, including: type; quantity; physical form; disposition (containment or nature of deposits); and facility characteristics affecting release (e.g., facility security, and engineering barriers). This shall include quantification of the following specific characteristics, at each source area:

1. Unit/Disposal Area Characteristics

- a. Location of unit/disposal area;
- b. Type of unit/disposal area;
- c. Design features;
- d. Operating practices (past and present);
- e. Period of operation;
- f. Age of unit/disposal area;
- g. General physical conditions; and
- h. Method used to close the unit/disposal area.

2. Waste Characteristics:

- a. Type of wastes placed in the unit;
 - i. Hazardous classification (e.g., flammable, reactive, corrosive, oxidizing or reducing agent);
 - ii. Quantity; and
 - iii. Chemical composition.
- b. Physical and chemical characteristics such as;
 - i. Physical form (solid, liquid, gas);
 - ii. Physical description (e.g., powder, oily sludge);
 - iii. Temperature;

- iv. pH;
- v. General chemical class (e.g., acid, base, solvent);
- vi. Molecular weight;
- vii. Density;
- viii. Boiling point;
- ix. Viscosity;
- x. Solubility in water;
- xi. Cohesiveness of the waste; and
- xii. Vapor pressure.

- c. Migration and dispersal characteristics of the waste such as:
 - i. Sorption capability;
 - ii. Biodegradability, bioconcentration, biotransformation;
 - iii. Photodegradation rates;
 - iv. Hydrolysis rates; and
 - v. Chemical transformations.

The Permittee shall document the procedures used in making the above determinations.

C. Characterization of Releases of Hazardous Constituents

The Permittee shall collect analytical data on ground water, soils, surface water, sediment, and subsurface gas contamination in the vicinity of the facility in accordance with the sampling and analysis plan as required above. These data shall be sufficient to define the extent, origin, direction, and rate of movement of contamination. Data shall include time and location of sampling, media sampled, concentrations found, conditions during sampling, and the identity of the individuals performing the sampling and analysis. The Permittee shall address the following types of contamination at the facility:

1. Ground-Water Contamination

The Permittee shall conduct a ground-water investigation to characterize any plumes of contamination detected at the facility. This investigation shall at a minimum provide the following information:

- a. A description of the horizontal and vertical extent of any plume(s) of hazardous constituents originating from or within the facility;

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- b. The horizontal and vertical direction of contamination movement;
- c. The velocity of contaminant movement;
- d. The horizontal and vertical concentration profiles of hazardous constituents in the plume(s);
- e. An evaluation of factors influencing the plume movement; and
- f. An extrapolation of future contaminant movement.

The Permittee shall document the procedures used in making the above determinations (e.g., well design, well construction, geophysics, modeling, etc.).

2. Soil Contamination

The Permittee shall conduct an investigation to characterize the contamination of the soil and rock units above the saturated zone in the vicinity of any contaminant release. The investigation may include the following information:

- a. A description of the vertical and horizontal extent of contamination;
- b. A description of appropriate contaminant and soil chemical properties within the contaminant source area and plume. This may include contaminant solubility, speciation, absorption, leachability, exchange capacity, biodegradability, hydrolysis, photolysis, oxidation and other factors that might affect contaminant migration and transformation;
- c. Specific contaminant concentrations;
- d. The velocity and direction of contaminant movement; and
- e. An extrapolation of future contaminant movement.

The Permittee shall document the procedures used in making the above determinations.

3. Surface Water and Sediment Contamination

The Permittee shall conduct a surface water investigation to characterize contamination in surface water bodies resulting from releases of hazardous constituents at the facility. The investigation may include, but not be limited to the following information:

- a. A description of the horizontal and vertical extent of any plume(s) originating from the facility, and the extent of contamination in underlying sediments;
- b. The horizontal and vertical direction of contaminant movement;
- c. The contaminant velocity;
- d. An evaluation of the physical, biological and chemical factors influencing contaminant movement;

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- e. An extrapolation of future contaminant movement; and
- f. A description of the chemistry of the contaminated surface waters and sediments. This includes determining the pH, total dissolved solids, specific contaminant concentrations, etc.

4. Air Contamination

The Permittee shall conduct an investigation to characterize gaseous releases of hazardous constituents into the atmosphere or any structures or buildings. This investigation may provide the following information:

- a. A description of the horizontal and vertical direction and velocity of contaminant movement;
- b. The rate and amount of the release; and
- c. The chemical and physical composition of the contaminant(s) released, including horizontal and vertical concentration profiles.

The Permittee shall document the procedures used in making the above determinations.

D. Potential Receptors

The Permittee shall collect data describing the human populations and environmental systems that are susceptible to contaminant exposure from the facility. Chemical analysis of biological samples and/or data on observable effects in ecosystems may also be obtained as appropriate. The following characteristics shall be identified:

- 1. Current local uses and planned future uses of ground water:
 - a. Type of use (e.g., drinking water source: municipal or residential, agricultural, domestic/non-potable, and industrial); and
 - b. Location of ground-water users, to include withdrawal and discharge wells, within one mile of the impacted area.

The above information should also indicate the aquifer or hydrogeologic unit used and/or impacted for each item.

- 2. Current local uses and planned future uses of surface waters directly impacted by the facility:
 - a. Domestic and municipal (e.g., potable and lawn/gardening watering);
 - b. Recreational (e.g., swimming, fishing);
 - c. Agricultural;
 - d. Industrial; and
 - e. Environmental (e.g., fish and wildlife propagation).
- 3. Human use of or access to the facility and adjacent lands, including but not limited to:
 - a. Recreation;
 - b. Hunting;
 - c. Residential;

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- d. Commercial; and
 - e. Relationship between population locations and prevailing wind direction.
-
- 4. A general description of the biota in surface water bodies on, adjacent to, or affected by the facility.
 - 5. A general description of the ecology within the area adjacent to the facility.
 - 6. A general demographic profile of the people who use or have access to the facility and adjacent land, including, but not limited to: age; sex; and sensitive subgroups.
 - 7. A description of any known or documented endangered or threatened species near the facility.

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APPENDIX D

SCHEDULE OF COMPLIANCE

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APPENDIX D

SCHEDULE OF COMPLIANCE

Schedule of Compliance	Due Date
Notification of Newly Identified SWMUs and AOCs Condition IV.C.1 and Condition IV.C.2	Within fifteen (15) calendar days of discovery
SWMU Assessment Report Condition IV.C.3	Within ninety (90) calendar days of notification
Notification for Newly Discovered Releases at Previously Identified SWMUs and AOCs Condition IV.D.1	Within fifteen (15) calendar days after discovery
Confirmatory Sampling Work Plan for SWMUs identified in Appendix B, Condition IV.E.1.	Within forty five (45) calendar days after effective date of permit
Confirmatory Sampling Report Condition IV.E.4.	Within sixty (60) days after approval of the CS Work Plan
RFI Work Plan for SWMU(s) Identified in Appendix B Condition IV.F.1.a.	Within ninety (90) calendar days after effective date of permit
RFI Work Plan for SWMU(s) and AOC(s) under Condition IV.C.4., Condition IV.D.2., Condition IV.E.5., and Condition IV.F.1.b.	Within ninety (90) calendar days after receipt of notification by the Department which SWMUs or AOCs require an RFI
RFI Progress Reports Condition IV.F.3.a.	Quarterly, beginning ninety (90) calendar days from the start date specified by the Department *
Draft RFI Report Condition IV.F.3.b.	In accordance with the approved RFI Work Plan
Final RFI Report Condition IV.F.3.b.	Within thirty (30) calendar days after receipt of the Department's comments on the Draft RFI Report
Interim Measures Work Plan Condition IV.G.1.a.	Within thirty (30) calendar days of notification by the Department
Interim Measures Progress Reports Condition IV.G.3.a.	In accordance with the approved IM Work Plan **
Interim Measure Report Condition IV.G.3.b.	Within ninety (90) calendar days of completion of interim measures

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Schedule of Compliance	Due Date
CMS Work Plan Condition IV.H.1.a.	Within ninety (90) calendar days of notification by the Department that a CMS is required
Implementation of CMS Work Plan Condition IV.H.2.	Within fifteen (15) calendar days after receipt of Department's approval of plan
Draft CMS Report Condition IV.H.3.a.	In accordance with the approved CMS Work Plan
Final CMS Report Condition IV.H.3.a.	Within thirty (30) calendar days of Department's comments on draft CMS Report
Demonstration of Financial Assurance Condition IV.I.3.	Within one hundred and twenty (120) calendar days after permit modification for remedy
Imminent Hazard Report Condition IV.K.1. and IV.K.2.	Oral within 24 hours; written within fifteen (15) calendar days of the time the Permittee becomes aware of the circumstances
Waste Minimization Certification Condition V.	If Condition VI.A. is applicable, annually from effective date of permit.
Organic Air Emissions Report Condition VII.	Within thirty (30) calendar days after implementation of the unit's modification that renders Subpart AA and/or Subpart BB applicable

The above reports must be signed and certified in accordance with 40 CFR 270.11 as adopted by 15A NCAC 13A .0013.

* This applies to Work Plan execution that requires more than one hundred and eighty (180) calendar days.

** This applies to Work Plan execution that requires more than one year.

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CHEMICAL SPECIALTIES INC. POST-CLOSURE PERMIT

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APPENDIX E

CORRECTIVE MEASURES STUDY PLAN OUTLINE (CMS)

CORRECTIVE MEASURES STUDY (CMS) PLAN OUTLINE**DRAFT**
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- I. Identification and Development of the Corrective Measure Alternatives
 - A. Description of Current Situation
 - B. Establishment of Corrective Action Objectives
 - C. Screening of Corrective Measures Technologies
 - D. Identification of the Corrective Measure Alternatives
- II. Evaluation of the Corrective Measure Alternatives
 - A. Technical/Environmental/Human Health/Institutional
 - B. Cost Estimate
- III. Justification and Recommendation of the Corrective Measure or Measures
 - A. Technical
 - B. Environmental
 - C. Human Health
- IV. Reports
 - A. Draft
 - B. Final
 - C. Public Review and Final Selection of Corrective Measure

- I. IDENTIFICATION AND DEVELOPMENT OF THE CORRECTIVE MEASURES ALTERNATIVES

Based on the results of the RCRA Facility Investigation and consideration of the identified potential corrective measure technologies, the Permittee shall identify, screen and develop the alternatives for removal, containment, treatment and/or other remediation of the contamination based on the objectives established for the corrective action.

- A. Description of Current Situation

The Permittee shall submit an update to the information describing the current situation at the facility and the known nature and extent of the contamination as documented by the RCRA Facility Investigation (RFI) Report. The Permittee shall provide an update to information presented in the RFI regarding previous response activities and interim measures which have or are being implemented at the facility. The Permittee shall also make a facility-specific statement of the purpose for the response, based on the results of the RFI. The statement of purpose should identify the actual or potential exposure pathways that should be addressed by corrective measures.

- B. Establishment of Corrective Action Objectives

The Permittee shall propose facility-specific objectives for the corrective action. These objectives shall be based on public health and environmental criteria, information gathered during the RFI, EPA guidance, and the requirements of any applicable Federal statutes. At a minimum, all corrective actions concerning ground-water releases from regulated units must be consistent with, and as stringent as, those

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required under 40 CFR 264.100 as adopted in 15A NCAC 13A .0009.

C. Screening of Corrective Measure Technologies

The Permittee shall review the results of the RFI and assess the technologies which are applicable at the facility. The Permittee shall screen the corrective measure technologies to eliminate those that may prove infeasible to implement, that rely on technologies unlikely to perform satisfactorily or reliably, or that do not achieve the corrective measure objective within a reasonable time period. This screening process focuses on eliminating those technologies which have severe limitations for a given set of waste and site-specific conditions. The screening step may also eliminate technologies based on inherent technology limitations.

Site, waste, and technology characteristics which are used to screen inapplicable technologies are described in more detail below:

1. Site Characteristics

Site data should be reviewed to identify conditions that may limit or promote the use of certain technologies. Technologies whose use is clearly precluded by site characteristics should be eliminated from further consideration.

2. Waste Characteristics

Identification of waste characteristics that limit the effectiveness or feasibility of technologies is an important part of the screening process. Technologies clearly limited by these characteristics should be eliminated from consideration. Waste characteristics particularly affect the feasibility of in-situ methods, direct treatment methods, and land disposal (on/off-site).

3. Technology Limitations

During the screening process, the level of technology development, performance record, and inherent construction, operation, and maintenance problems should be identified for each technology considered. Technologies that are unreliable, perform poorly, or are not fully demonstrated may be eliminated in the screening process. For example, certain treatment methods have been developed to a point where they can be implemented in the field without extensive technology transfer or development.

D. Identification of the Corrective Measure Alternatives

The Permittee shall develop the Corrective Measure Alternatives based on the corrective action objectives and analysis of potential corrective measure technologies. The Permittee shall rely on engineering practice to determine which of the previously identified technologies appear most suitable for the site. Technologies can be combined to form the overall corrective action alternatives. The alternatives developed should represent a workable number of option(s) that each appear to adequately address all site problems and corrective action objectives. Each alternative may consist of an individual technology or a combination of technologies. The Permittee shall document the reasons for excluding technologies.

II. EVALUATION OF THE CORRECTIVE MEASURE ALTERNATIVES

The Permittee shall describe each corrective measure alternative that passes through the initial screening and evaluate each corrective measure alternative and its components. The evaluation shall be based on technical, environmental, human health and institutional concerns. The Permittee shall also develop cost estimates of each corrective measure.

A. Technical/Environmental/Human Health/Institutional

The Permittee shall provide a description of each corrective measure alternative which includes but is no limited to the following: preliminary process flow sheets; preliminary sizing and type of construction for buildings and structures; and rough quantities of utilities required. The Permittee shall evaluate each alternative in the four following areas:

1. Technical;

- a. The Permittee shall evaluate each corrective measure alternative based on performance, reliability, implementability and safety.
 - i. Effectiveness shall be evaluated in terms of the ability to perform intended functions, such as containment, diversion, removal, destruction, or treatment. The effectiveness of each corrective measure shall be determined either through design specifications or by performance evaluation. Any specific waste or site characteristics which could potentially impede effectiveness shall be considered. The evaluation should also consider the effectiveness of combinations of technologies; and
 - ii. Useful life is defined as the length of time the level of desired effectiveness can be maintained. Most corrective measure technologies, with the exception of destruction, deteriorate with time. Often, deterioration can be slowed through proper system operation and maintenance, but the technology eventually may require replacement. Each corrective measure shall be evaluated in terms of the projected service lives of its component technologies. Resource availability in the future life of the technology, as well as appropriateness of the technologies, must be considered in estimating the useful life of the project.
- b. The Permittee shall provide information on the reliability of each corrective measure including their operation and maintenance requirements and their demonstrated reliability:
 - i. Operation and maintenance requirements include the frequency and complexity of necessary operation and maintenance. Technologies requiring frequent or complex operation and maintenance activities should be regarded as less reliable than technologies requiring little or straightforward operation and maintenance. The availability of labor and materials to meet these requirements shall also be considered; and
 - ii. Demonstrated and expected reliability is a way of

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measuring the risk and effect of failure. The Respondent should evaluate whether the technologies have been used effectively under analogous conditions; whether the combination of technologies have been used together effectively; whether failure of any one technology has an immediate impact on receptors; and whether the corrective measure has the flexibility to deal with uncontrollable changes at the site.

c. The Permittee shall describe the implementability of each corrective measure including the relative ease of installation (constructability) and the time required to achieve a given level of response:

i. Constructability is determined by conditions both internal and external to the facility conditions and include such items as location of underground utilities, depth to water table, heterogeneity of subsurface materials, and location of the facility (i.e., remote location vs. a congested urban area). The Permittee shall evaluate what measures can be taken to facilitate construction under these conditions. External factors which affect implementation include the need for special permits or agreements, equipment availability, and the location of suitable off-site treatment or disposal facilities; and

ii. Time has two components that shall be addressed: the time it takes to implement a corrective measure and the time it takes to actually see beneficial results. Beneficial results are defined as the reduction of contaminants to some acceptable, pre-established level.

d. The Permittee shall evaluate each corrective measure alternative with regard to safety. This evaluation shall include threats to the safety of nearby communities and environments as well as those to workers during implementation. Factors to consider are fire, explosion, and exposure to hazardous substances.

2. Environmental;

The Permittee shall perform an Environmental Assessment for each alternative. The Environmental Assessment shall focus on the facility conditions and pathways of contamination actually addressed by each alternative. The Environmental Assessment for each alternative will include, at a minimum, an evaluation of: the short- and long-term beneficial and adverse effects of the response alternative; and adverse effects on environmentally sensitive areas; and an analysis of measures to mitigate adverse effects.

3. Human Health;

The Permittee shall assess each alternative in terms of the extent to which it mitigates short- and long-term potential exposure to any residual contamination and protects human health both during and after implementation of the corrective measure. The assessment will describe the concentrations and characteristics of the contaminants on-site, potential exposure routes, and potentially affected population. Each alternative will be evaluated to determine the level of exposure to contaminants and the reduction over time. For management of mitigation measures, the relative levels of each

alternative with existing criteria, standards, or guidelines acceptable to EPA.

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4. Institutional

The Permittee shall assess relevant institutional needs for each alternative. Specifically, the effects of Federal, state and local environmental and public health standards, regulations, guidance, advisories, ordinances, or community relations on the design, operation, and timing of each alternative. If the selected remedy is capping and closure in place, a notation must be made in the land deed.

B. Cost Estimate

The Permittee shall develop an estimate of the cost of each corrective measure alternative (and for each phase or segment of the alternative). The cost estimate shall include both capital and operation and maintenance costs.

1. Capital costs consist of direct (construction) and indirect (non-construction and overhead) costs.
 - a. Direct capital costs include:
 - i. Construction costs: Costs of materials, labor (including fringe benefits and worker's compensation), and equipment required to install the corrective measure.
 - ii. Equipment costs: Costs of treatment, containment, disposal and/or service equipment necessary to implement the action; these materials remain until the corrective action is complete;
 - iii. Land and site-development costs: Expenses associated with purchase of land and development of existing property; and
 - iv. Buildings and services costs: Costs of process and non-process buildings, utility connections, purchased services, and disposal costs.
 - b. Indirect capital costs include:
 - i. Engineering expenses: Cost of administration, design, construction supervision, drafting, and testing of corrective measure alternatives;
 - ii. Legal fees and license or permit costs: Administrative and technical costs necessary to obtain licenses and permits for installation and operation;
 - iii. Start-up and shakedown costs: Costs incurred during corrective measure start-up; and
 - iv. Contingency allowances: Funds to cover costs resulting from unforeseen circumstances, such as inadequate facility characterization.
2. Operation and maintenance costs are post-construction costs

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necessary to ensure continued effectiveness of a corrective measure. The Permittee shall consider the following operation and maintenance cost components:

- a. Operating labor costs: Wages, salaries, training, overhead, and fringe benefits associated with the labor needed for post-construction operations;
- b. Maintenance materials and labor costs: Costs for labor, parts, and other resources required for routine maintenance of facilities and equipment;
- c. Auxiliary materials and energy: Costs of such items as chemicals and electricity for treatment plant operations, water and sewer service, and fuel;
- d. Purchased services: Sampling costs, laboratory fees, and professional fees for which the need can be predicted;
- e. Disposal and treatment costs: Costs of transporting, treating, and disposing of waste materials, such as treatment plant residues, generated during operations;
- f. Administrative costs: Costs associated with administration of corrective measure operation and maintenance not included under other categories;
- g. Insurance, taxes, and licensing costs: Costs of such items as liability and sudden accident insurance; real estate taxes on purchased land or right-of-way; licensing fees for certain technologies; and permit renewal and reporting costs;
- h. Maintenance reserve and contingency funds: Annual payments into escrow funds to cover (1) costs of anticipated replacement or rebuilding of equipment and (2) any large unanticipated operation and maintenance costs; and
- i. Other costs: Items that do not fit any of the above categories.

III. JUSTIFICATION AND RECOMMENDATION OF THE CORRECTIVE MEASURE OR MEASURES

The Permittee shall justify and recommend a corrective measure alternative using technical, human health, and environmental criteria. This recommendation shall include summary tables which allow the alternative or alternatives to be understood easily. Trade-offs among health risks, environmental effects, and other pertinent factors shall be highlighted. The Department will select the corrective measure alternative or alternatives to be implemented based on the results obtained from work completed under Section II and III. At a minimum, the following criteria will be used to justify the final corrective measure or measures.

A. Technical

1. Performance - corrective measure or measures which are most effective at performing their intended functions and maintaining the performance over extended periods of time will be given preference;
2. Reliability - corrective measure or measures which do not

require frequent or complex operation and maintenance activities and that have proved effective under waste and facility conditions similar to those anticipated will be given preference;

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3. Implementability - corrective measure or measures which can be constructed and operated to reduce levels of contamination to attain or exceed applicable standards in the shortest period of time will be preferred; and
4. Safety - corrective measure or measures which pose the least threat to the safety of nearby residents and environments as well as workers during implementation will be preferred.

B. Human Health

The corrective measure(s) must comply with existing U.S. EPA criteria, standards, or guidelines for the protection of human health. Corrective measures which provide the minimum level of exposure to contaminants and the maximum reduction in exposure with time are preferred.

C. Environmental

The corrective measure(s) posing the least adverse impact (or greatest improvement) over the shortest period of time on the environment will be favored.

IV. REPORTS

The Permittee shall prepare a Corrective Measure Study Report presenting the results obtained from Sections I through III and recommending a corrective measure alternative. Copies of the preliminary report shall be provided by the Permittee to the Department for review and approval.

A. Draft

The Report shall at a minimum include:

1. A description of the facility;
 - a. Site topographic map and preliminary layouts.
2. A summary of the corrective measure(s) and rationale for selection;
 - a. Description of the corrective measure(s) and rationale for selection;
 - b. Performance expectations;
 - c. Preliminary design criteria and rationale;
 - d. General operation and maintenance requirements; and
 - e. Long-term monitoring requirements.
3. A summary of the RCRA Facility Investigation and impact on the selected corrective measure or measures;
 - a. Field studies (ground water, surface water, soil, air); and

- b. Laboratory studies (bench scale, pick scale).
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- 4. Design and Implementation Precautions;
 - a. Special technical problems;
 - b. Additional engineering data required;
 - c. Permits and regulatory requirements;
 - d. Access, easements, right-of-way;
 - e. Health and safety requirements; and
 - f. Community relations activities.
 - 5. Cost Estimates and Schedules;
 - a. Capital cost estimate;
 - b. Operation and maintenance cost estimate; and
 - c. Project schedule design, construction, and operation).

Copies of the draft shall be provided by the Permittee to the Department.

B. Final

The Permittee shall finalize the Corrective Measure Study Report incorporating comments received from the Department on the Draft Corrective Measure Study Report. The report shall become final upon approval by the Department.

C. Public Review and Final Selection of Corrective Measures

Upon receipt of the Final Corrective Measure Study Report, EPA shall announce its availability to the public for review and comment. At the end of the comment period, the Department shall review the comments and then inform the Permittee of the final decision as to the approved Corrective Measures to be implemented.

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APPENDIX F

WASTE MINIMIZATION OBJECTIVES

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APPENDIX F

WASTE MINIMIZATION CERTIFICATION OBJECTIVES

The Waste Minimization Program should include the following elements:

1. Top Management Support

- Dated and signed policy describing management support for waste minimization and for implementation of a waste minimization plan.
- Description of employee awareness and training programs designed to involve employees in waste minimization planning and implementation to the maximum extent feasible.
- Description of how a waste minimization plan has been incorporated into management practices so as to ensure ongoing efforts with respect to product design, capital planning, production operations, and maintenance.

2. Characterization of Waste Generation

- Identification of types, amounts, and hazardous constituents of waste streams, with the source and date of generation.

3. Periodic Waste Minimization Assessments

- Identification of all points in a process where materials can be prevented from becoming a waste, or can be recycled.
- Identification of potential waste reduction and recycling techniques applicable to each waste, with a cost estimate for capital investment and implementation.
- Description of technically and economically practical waste reduction/recycling options to be implemented, and a planned schedule for implementation.
- Specific performance goals, preferably quantitative, for the source reduction of waste by stream. Whenever possible, goals should be stated as weight of waste generated per standard unit of production, as defined by the generator.

4. Cost Allocation System

- Identification of waste management costs for each waste, factoring in liability, transportation, record keeping, personnel, pollution control, treatment, disposal, compliance and oversight costs to the extent feasible.
- Description of how departments are held accountable for the wastes they generate.
- Comparison of waste management costs with costs of potential reduction and recycling techniques applicable to each waste.

5. Technology Transfer

- Description of efforts to seek and exchange technical information on waste minimization from other parts of the company, other firms, trade associations, technical assistance programs, and professional consultants.

6. Program Evaluation

- Description of types and amounts of hazardous waste reduced or recycled.
- Analysis and quantification of progress made relative to each performance goal established and each reduction technique to be implemented.
- Amendments to waste minimization plan and explanation.
- Explanation and documentation of reduction efforts completed or in progress before development of the waste minimization plan.
- Explanation and documentation regarding impediments to hazardous waste reduction specific to the individual facility.

References: "Draft Guidance to Hazardous Waste Generators on the Elements of a Waste Minimization Program", 54 CFR 25056, June 12, 1989.

"Waste Minimization Opportunity Assessment Manual",
EPA/625/788/003, July 1988.