COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

James S. Gilmore, III
Governor

John Paul Woodley, Jr.
Secretary of Natural Resources

West Central Regional Office
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Telephone (540) 562-6700, Fax (540) 526-6725
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Dennis H. Treacy
Director

Thomas L. Henderson
Regional Director

April 5, 1999

Mr. Richard Stewart
MicroMetrics Systems
225 Jeb Stuart Highway
Meadows of Dan, Virginia 24120

Re : MicroMetrics Systems
EPA I.D. No. VAD075612564
Compliance Evaluation Inspection

Dear Mr. Stewart:

Thank you for your cooperation during the Compliance Evaluation Inspection (CEI) conducted at the above referenced facility on March 18 and 25, 1999, by the Department of Environmental Quality (DEQ), West Central Regional Office. Based on notification provided to the United States Environmental Protection Agency (EPA) and the DEQ, your facility was evaluated for compliance with the Virginia Hazardous Waste Management Regulations (VHWMR) as a Large Quantity Generator (LQG). Checklists completed for the inspection are enclosed.

Based upon the inspection and a review of observations, responses, and documents obtained, there are deficiencies. They are noted on the enclosed inspection checklists and are summarized as follows:

1. ***In apparent non-compliance with 9 VAC 20-60-290 B.2., the facility failed to assign an unique five digit number to two manifests on two different occasions.*** The inspector reviewed the facility's manifests during the inspection. Hazardous waste shipments made on 8/21/97 and 10/31/97 to Phibro-Tech were accompanied by manifests which were assigned the same number 00028. The second occurrence happened on 1/7/98 and 2/11/98, when both hazardous waste shipments to Phibro-Tech were accompanied by manifests assigned the same number 00030. The error was discussed with facility representatives, and the inspector stressed that each manifest for each hazardous waste shipment must be assigned

an unique five digit number. The facility should implement a practice for ensuring each manifest is assigned a different number.

2. ***In apparent non-compliance with 9 VAC 20-60-370 E.1.c., the facility failed to label an accumulation tank with the words "Hazardous Waste."*** During the inspection of Building A Accumulation Area, the inspector noted that the 1,500 gallon hazardous waste storage tank was not labeled with the words "Hazardous Waste." The facility representatives corrected the error in the presence of the inspector, and therefore, no further response is required to address this item.

3. ***In apparent non-compliance with 9 VAC 20-60-370 E.2., the facility accumulated hazardous waste in containers for greater than 90 days.*** During the inspection of the Building B Accumulation Area, the inspector noted a 55-gallon drum of sludge from tank #5 with an accumulation start date of 11/20/98. In order to meet the 90-day accumulation time limitation, the facility should have shipped the drum off-site by February 20, 1999.

   Facility representatives stated that the drum was part of a routine cleaning of tanks #5 and #6 which had generated several 55-gallon drums of sludge material. All of the drums from the cleaning activity had been previously shipped off-site with the exception of the one drum, which was not shipped because it was only one-quarter full.

   It was discussed during the inspection that once a container of hazardous waste is moved to the accumulation area and an accumulation start date is assigned to the container, the facility, as a large quantity generator, has 90-days to ship the waste off-site to an appropriate TSDF.

   The facility corrected the item on March 24, 1999, when the drum was shipped off-site to a TSDF. The DEQ would like the facility to re-evaluate its management practices for the waste generated from the tank cleaning activities and submit a summary of what steps will be taken to prevent a similar occurrence in the future.

Please note that the above information is not an agency proceeding or determination which may be considered a case decision under the Administrative Process Act (***Va. Code §§ 9-6.14.1, et seq.***). It does advise you that facts stated in this notice could provide the basis for a case decision or civil proceedings for non-compliance under ***Va. Code §§10.1-1402.19*** and ***10.1-1455***, or other pertinent section of the Virginia Code, should DEQ take or seek actions authorized by law.

Please respond in writing to the deficiencies and comments addressed above within thirty (30) days from receipt of this letter, and provide information and/or documentation of what actions have been or will be taken in order to correct the deficiencies numbered above as 1. and 3.

In addition to the Survey, LQG, and Tank checklists, a Subpart CC checklist was provided to you during the inspection. The Subpart CC regulations became effective on December 6, 1996. These regulations are intended to control volatile organic air emissions from tanks, containers, and surface impoundments located at permitted and interim TSD facilities and LQG facilities. While Virginia does not currently have authority to enforce Subpart CC, these RCRA Air Rules were developed under RCRA Section 3004(n) and are self-implementing. To assist the DEQ in further evaluating and determining the status of your facility, please include with your response a written summary describing steps the facility has or will take to evaluate and comply with Subpart CC.

Hazardous waste management and safety personnel should be complimented for their efforts in proper waste management and the organization of the facility's programs. If you should have any questions or need additional information, please do not hesitate to contact me at (540)562-6799.

Sincerely,

EA Lohman

Elizabeth A. Lohman
Environmental Inspector Senior

Enclosures

CC : Mr. Aziz Farahmand, DEQ-WCRO Environmental Program Manager
Ms. Claire Ballard, DEQ-OTA
WCRO Files

January 1994

DEPARTMENT OF ENVIRONMENTAL QUALITY
WASTE DIVISION

SURVEY SHEET
FOR INSPECTION OF HAZARDOUS WASTE FACILITIES

NAME of FACILITY	:	*Roto Die Company, Inc.* *MicroMetrics Systems*
ADDRESS	:	*225 Jeb Stuart Highway* *Meadows of Dan, Virginia 24120*
EPA ID NUMBER	:	*VAD075612564*
FACILITY REPRESENTATIVE	:	*Richard Stewart, Emergency Coordinator/Supervisor* *Robin Underwood, Foreman*
TELEPHONE NUMBER	:	*(540)952-2026*
INSPECTOR'S NAME	:	*Elizabeth Lohman, Environmental Inspector Sr.* *Kimberly Batwinas, Environmental Inspector Sr.*
DATE of INSPECTION	:	*18 and 25 March 1999*

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1. What is the business activity of the firm? (i.e., furniture mfg., metal plating, recycling,etc.)

   The facility manufactures dies and tools for the paper cutting industry.

2. Give a brief description of the waste stream(s) [by chemical name, if possible] and hazardous waste code(s) generated by the firm.

   See attached "Description of Waste Streams and Annual Report 1997 Summary."

3. List the highest amounts of hazardous waste ever generated in any month of the calendar year and the greatest amount ever accumulated at the site of each type of waste generated.

Waste Code	Amt Generated	Amt Accumulated
D001 (butyl acetate)	*~730 lbs/month*	*2,409 lbs*
D001, F003 (xylene, ethlybenzene)	*~119 lbs/month*	*1,188 lbs*
D002, D007 (hydrochloric acid)	*~111 gal/month*	*1,265 gal*
D007 (haz waste solid)	*~one drum/4 months*	*one drum*
D001, D011 (silver)	*~ 73 gal/month*	*220 gal*
D002, D007 (NaOH soln)	*~825 lbs/month*	*4,950 lbs*
D006, D007 (haz waste liquid)	*~ 96 gal/month*	*1,100 gal*
D002, D026, D039, F002, F004	*~743 lbs/year*	*743 lbs*

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4. Does the facility ever generate greater than: YES ***NO***

1 kg. of acutely toxic waste (P listed waste or F020-F023 and F026-F027)?

100 kg of clean-up from a spill of P listed waste or F020-F023 and F026-F027 waste? If yes, then the facility is a large quantity generator. YES ***NO***

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5. How is the waste presently being handled? Where is it sent? (List all transporters and facilities, or on-site treatment performed).

	TRANSPORTER	***TSDF***
Ferric chloride: (Mid 98- Present)	*Freehold Cartage Inc. NJD054126164*	*Clean Harbors of Ohio Cleveland Ohio*
Ferric chloride: (Prior to 98)	*Harold Marcus MIT270012321*	*Phibro-Tech ILD062480850*
	Phibro-Tech NJD986619328	
	Plainfield Motor Services ILR000037309	

	TRANSPORTER	TSDF
Other waste: (Mid 98- Present)	*ADS (Adv. Distribution Sys) OHR000025460*	*Fischer Industrial Services ALD981020894*
	Qualified Transporter LAD981907488	
	Maymee Express Inc. NJD986507380	
	Envirocon Services GAD984322909	
	Fischer Industrial Services ALD98102894	
Other wastes: (1996-1998)	*Laidlaw Environmental Services SCD987574647*	*Laidlaw Environmental Services NCD000648451OHR000025460*
Oil and oil filters:	*Necessary Oil Bristol*	
Batteries:	*Micrometrics*	*Hillsville, Virginia*
Scrap metal:	*Cycle Systems, Inc.*	*Cycle Systems, Inc.*
Biohazard waste:	*Sci-Med Waste Systems, Inc. Roanoke, Virginia*	*RCNC/BMWNC Mathews, North Carolina*
Silver (Photo-processing)	*Safety Kleen Systems*	*Safety Kleen Systems*

Manifests for Safety Kleen were not reviewed during the inspection.

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6. Does the facility generate any hazardous waste that is excluded from regulation? If yes, list the waste and the basis for exclusion. *YES* NO

Wastewater generated from various processes throughout the facility are accumulated in tanks and are neutralized with sodium hydroxide. The neutralized wastewater is pumped and hauled to the Town of Stuart STP under a pretreatment program permit.

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7. Does the facility: Generate Market Burn

used oil that is burned for energy recovery? Underline or circle all that are applicable. (If the facility markets or burns used oil, fill out the Used Oil Checklist.) YES ***NO***

Does the generator of used oil to be burned for energy recovery (other than a Conditionally Exempt Small Quantity Generator) mix the used oil with hazardous waste? If YES, then fill out the Used Oil Checklist.

The facility generates used oil and oil filters which are recyled and handled, respectively by Necessary Oil.

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8. Does the facility generate any hazardous waste that is reclaimed to recover economically feasible amounts of gold, silver, platinum, palladium, iridium, osmium, rhodium, ruthenium, or any combination of these? YES ***NO***

If Yes, list the waste, where it is sent, and complete the Metals Recovery Checklist.

Silver bearing wastestreams are handled by Safety Kleen Systems. Photo processing constitutes less than 1% of work as laser imaging has been implemented as alternative.

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9. Does the facility generate, transport, store, collect or reclaim spent lead-acid batteries? ***YES*** NO
If yes, Underline or circle all that are applicable.
If the facility stores batteries before reclaiming them, complete the Metals Recovery Checklist.

Used batteries from material handling equipment are taken to a drop-off site in Hillsville, Virginia.

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10. **Based on the above, the facility is a:**

    a. conditionally exempt small quantity generator
    b. small quantity generator
    c. ***large quantity generator***
    d. permitted or interim status TSD
    e. unpermitted TSD (explain in comments section)
    f. transporter
    g. other: please explain_____

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11. **Check accumulation times and quantities for the three types of generators. If the times or quantities are exceeded, then the facility is moved up to the next category. Complete the appropriate checklist(s).**

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12. **List each container and tank accumulation area. Specify the number and capacity of each tank and container. [Note: Include any satellite accumulation areas. Verify that only 55 gallons of any particular hazardous waste code (or one quart of acutely toxic waste) is at that area.]**

Type	Location	Container Type	Qty	Capacity
BUILDING A				
Satellite	*Chrome plating*	*Drum*	*2*	*55-Gal*
Satellite	*CNC (antifreeze)*	*Drum*	*1*	*55-Gal*
Satellite	*Receiving (solvent rags)*	*Drum*	*1*	*55-Gal*
Satellite	*Building A Accumulation*	*Drum*	*1*	*55-Gal*
Accumulation	*Building A Accumulation*	*Drums*	*2*	*55-Gal*
Accumulation	*Building A Accumulation*	*Tank*	*1*	*1500-Gal*
BUILDING B				
Satellite	*Film processing (cleaning)*	*Drum*	*1*	*55-Gal*
Satellite	*Film processing (developer)*	*Drum*	*1*	*55-Gal*
Satellite	*Resist lab (rags)*	*Drum*	*1*	*55-Gal*
Satellite	*Etch room (rags)*	*Drum*	*1*	*55-Gal*
Satellite	*Building B Accumulation*	*Drum*	*1*	*55-Gal*
Accumulation	*Building B Accumulation*	*Drums*	*10*	*55-Gal*
Accumulation	*Tank Room-Tank #10*	*Tank*	*1*	*2000-Gal*

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13. Waste Management Flow Diagram:

(On this page sketch a brief, but detailed, flow diagram that includes how and where the waste is generated, the steps through a treatment system (if any), the steps through storage including satellite accumulation areas. Do this for each waste stream including excluded hazardous waste. Include any wastewater treatment facilities at the company, and verify the type of units included in the system, and any hazardous waste streams going to WWT.)

See attached flow diagrams 1-3.

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14. Comments:

A. *Prior to mid- 1998, the facility sent waste ferric chloride from the etching process to a hazardous waste TSDF under a hazardous waste manifest. However, beginning in mid-1998 and continuing through the present, the facility sends the waste ferric chloride to a wastewater treatment facility operated by Clean Harbors in Clevelenad Ohio uner a bill of lading. The WWTP uses the ferric chloride as a raw material or product in its treatment process.*

ROTO DIE COMPANY, INC.
MICROMETRICS SYSTEMS
VAD075612564

DESCRIPTION OF WASTE STREAMS & ANNUAL REPORT 1997 SUMMARY

WASTESTREAM	WASTE CODE(S)	QUANTITY GENERATED
SOLVENTS FROM METAL DEVELOPING PROCEDURE: CONTAINS BUTYL ACETATE	D001	15,263 LBS
SOLVENTS FROM METAL DEVELOPING PROCEDURE (PF DEVELOPER): CONTAINS ETHYL BENZENE, XYLENE	D001, F003	6,160 LBS
SPENT PLATING SOLVENTS AND RINSES: CONTAINS HYDROCHLORIC ACID	D002, D007	38,115 LBS
USED PPE FROM PLATING OPERATIONS: CONTAINS SODIUM HYDROXIDE, CHROMIUM	D007	500 LBS
SPENT KODAK DEVELOPER/FIXER FROM PHOTO PROCESSING: CONTAINS SILVER	D001, D011	10,120 LBS
SPENT STRIPPING BATH FROM PLATING OPERATIONS: CONTAINS SODIUM BIFLUORIDE, SODIUM BISULFATE	D002	5,610 LBS
SPENT FLAMMABLE LIQUID FROM METAL COATING OPERATION: CONTAINS XYLENE, ETHYL BENZENE	D001, F003	400 LBS
WASTE FERRIC CHLORIDE FROM ETCHING PROCESS: CONTAINS FERRIC CHLORIDE AND HYDROCHLORIC ACID	D002, D006, D007, D008	319,264 LBS
SOLIDS FROM ETCH RINSE STORAGE TANK: CONTAINS CADMIUM, CHROMIUM	D006, D007	6,435 LBS
SPENT STRIPPER: CONTAINS PERCHLOROETHLYENE, ORTHODICHLOROBENZENE	D002, D026, D039, F002, F004	333 LBS

Prepared by: EALohman, DEQ-WCRO

ROTO DIE COMPANY, INC.
MICROMETRICS SYSTEMS
VAD075612564

SUMMARY OF MANIFEST FOR 1998-99

	DATE	GAL	LBS	
WASTE BUTYL ACETATE	01/06/98	330	402	0.88 sp. g. butyl acetate X 8.34 lbs/gal water=7.3 lbs/gal
(D001)	01/14/98	55	2409	
	02/18/98	220	1606	
	03/23/98	275	2008	
	10/30/98	110	803	
	12/15/98	110	803	
	01/12/99	55	457	
	03/04/99	165	1205	
WASTE FLAM LIQUID	01/14/98	55	396	0.864 sp. g. xylene X 8.34 lbs/gal water=7.2 lbs/gal
(XYLENE, ETHYLBENZENE)	02/18/98	55	396	
(D001, F003)	12/15/98	165	1188	
	03/04/99	110	792	
WASTE COR LIQUID	02/18/98	770	6422	
(HYDROCHLORIC ACID)	12/15/98	1110	9257	
(D002, D007)	03/04/99	1265	10550	
HAZ WASTE SOLID	03/23/98	55		
(CHROMIUM)	10/30/98	55		
(D007)	03/24/99	55		
WASTE FLAM LIQUID	01/06/98	165		
(D001, D011)	01/14/98	55		
	02/18/98	110		
	03/23/98	165		
	10/30/98	165		
	12/15/98	220		
	01/12/99	55		
	03/24/99	55		
SODIUM HYDROXIDE SOLN	04/17/98	55	990	2.2 sp. g. NaOH X 8.34 lbs/gal water=18 lbs/gal
(D002, D007)	10/30/98	275	4950	
HAZ WASTE LIQUID	03/23/98	440		
(D006, D007)	10/30/98	1100		
	12/15/98	605		
	01/12/99	550		
	03/24/99	550		
TOXIC LIQUID	03/23/98	55	743	1.63 sp. g. perchloroethylene X 8.34 lbs/gal water=13.5 lbs/gal
(ORTHOCHLOROBENZENE,	03/04/99	55	743	
PERCHLOROETHYLENE)				
(D002, D026, D039, F002,				
F004)				

Prepared by: EALohman, DEQ-WCRO

AMPAD 22-141 50 SHEETS
22-142 100 SHEETS
22-144 200 SHEETS

MICROMETRICS SYSTEMS

VAD075612564

PREPARED BY: EALOHMAN

BUILDING A

CUSTOMER DESIGN SPECS W/ ORDER → CUT STEEL TO SIZE & DESIGN → LATHE & HEAT TREAT → GROUND TO SIZE & PATTERN → QA/QC TESTING → BLADES PLACED ON DIE → PROOF & RUN SAMPLE MATERIAL

OTHER WASTES/MATERIAL:

- USED RAGS/TOWELS
- OIL CONTAMINATED DEBRIS
- USED OIL/OIL FILTERS
- ANTIFREEZE
- BATTERIES
- WASTEWATER (TO TOWN OF STUART STP)

HAZARDOUS WASTE:

- SPENT PLATING SOLVENTS/RINSES (D002, D007)
- CONTAMINATED PPE-PLATING AREA (D007)
- SPENT STRIPPING BATHS-PLATING AREA (D002)
- SPENT STRIPPER -(F002, F001, D002, D026, D039)

BUILDING B

CUSTOMER DESIGN SPECS W/ ORDER → METAL PREPARATION CHEMICALLY TREAT METAL TO ACCEPT PICTURES → TRANSFER PICTURE TO METAL → DEVELOP PLATES W/ POTASSIUM CARBONATE → METAL PLACED IN ETCH BATH TO FORM BLADES → PROOF & TEST DIES W/ SAMPLES

OTHER WASTES/MATERIAL:

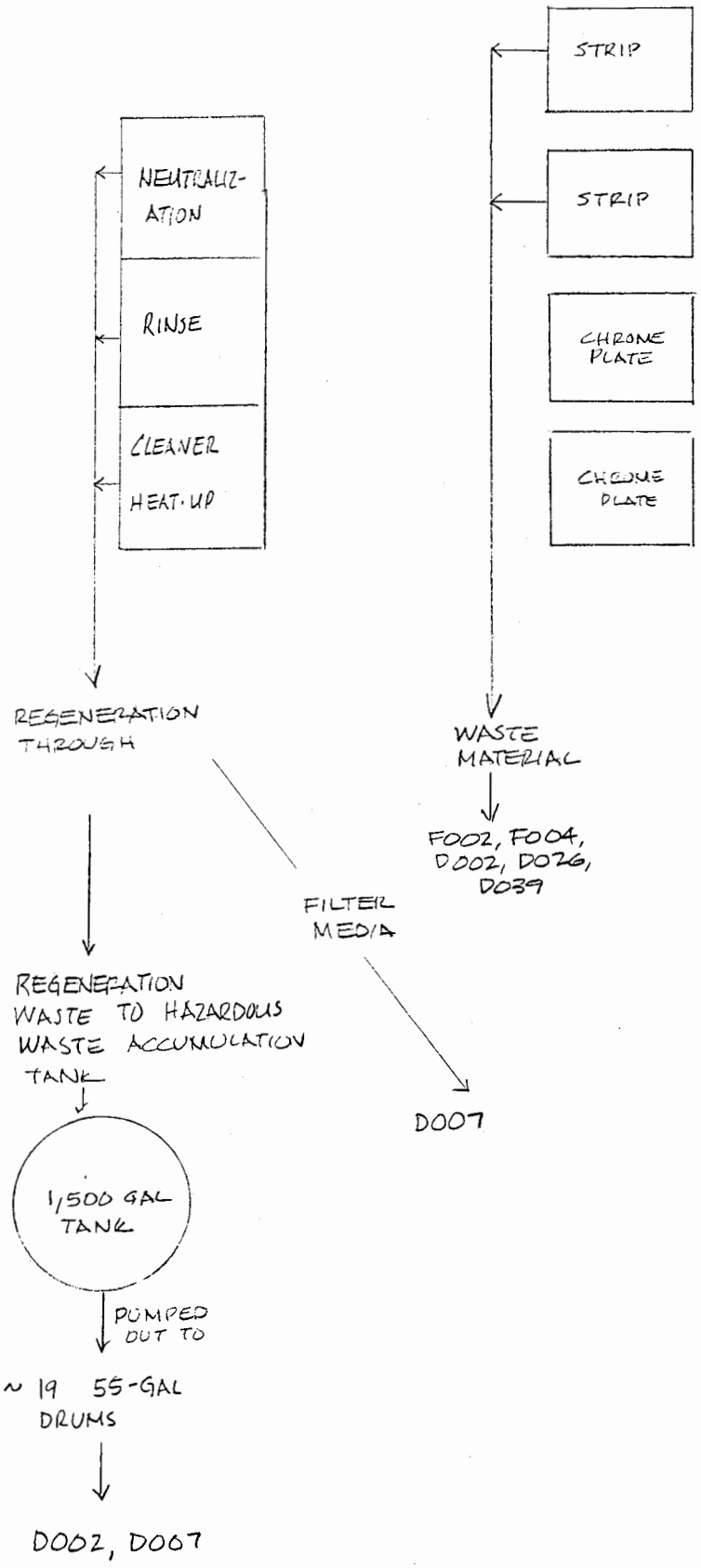
- FERRIC CHLORIDE SOL'N (TO WWTP IN OHIO)
-

HAZARDOUS WASTE:

- SPENT DEVELOPER/FIXER SOLNS (D001, D011)
- SOLIDS FROM ETCH RINSE STORAGE TANK (D006, D007)
- SPENT SOLVENTS FROM METAL COATING AND DEVELOPING PROCEDURES (D001, F003)

22-141 50 SHEETS
22-142 100 SHEETS
22-144 200 SHEETS
AMPAD

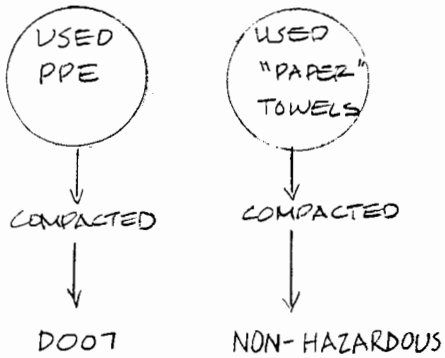
CHROME AREA



STRIP TANKS ARE CLEANED ~ EVERY SIX MONTHS.

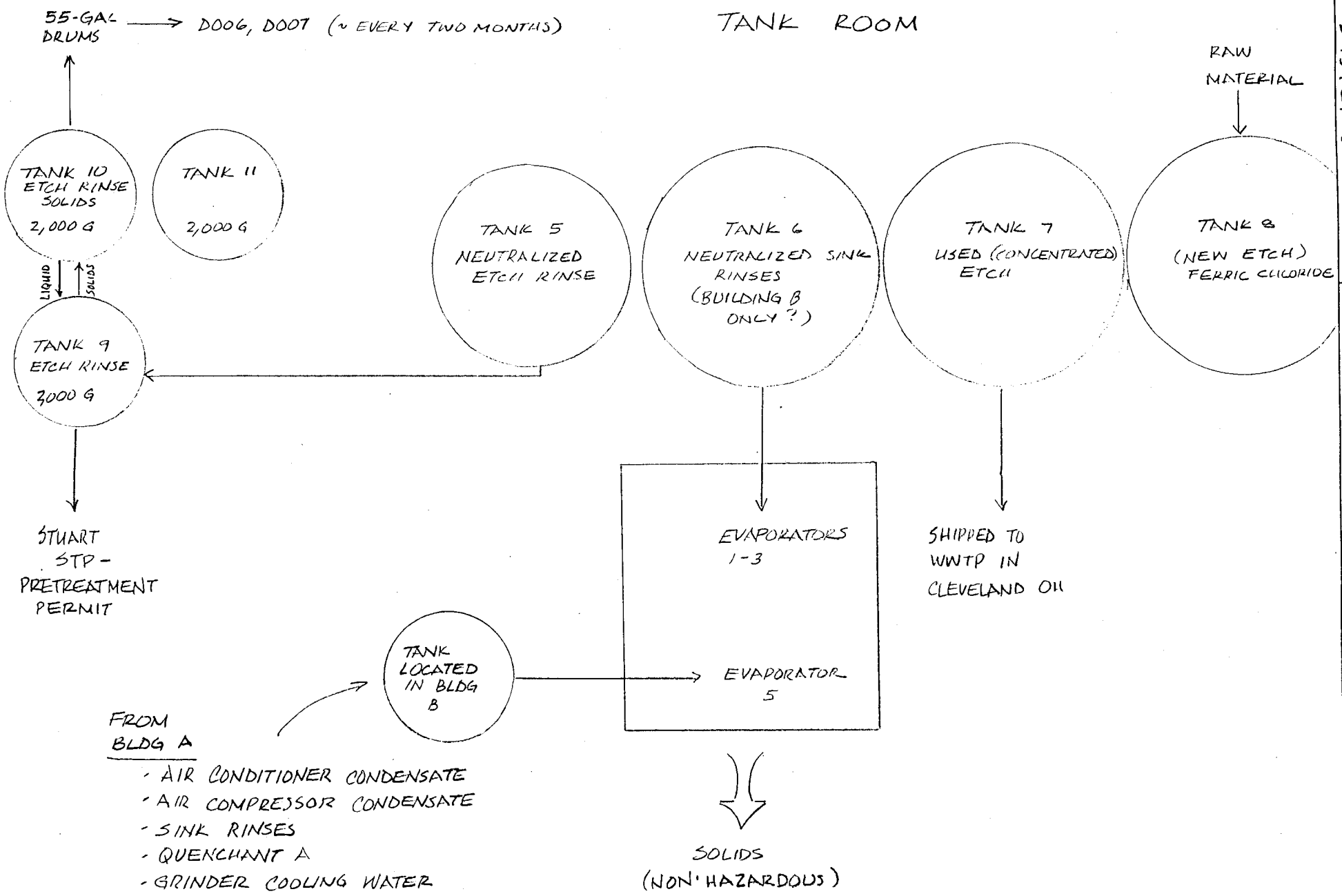
CHROME PLATE TANKS HAVE NEVER BEEN CHANGED - ONLY RAW MATERIAL ADDITION

SATELLITE



AMPAD 22-141 50 SHEETS
22-142 100 SHEETS
22-144 200 SHEETS

TANK ROOM



MICROMETRICS SYSTEMS

VAD075612564

PREPARED BY: EALOHMAN

January 1994

DEPARTMENT OF ENVIRONMENTAL QUALITY
WASTE DIVISION

CHECKLIST FOR HAZARDOUS WASTE INSPECTION OF LARGE QUANTITY GENERATORS (LQG)

FACILITY NAME : *MicroMetrics Systems*

EPA ID NUMBER : *VAD075612564*

INSPECTION DATE : *18 and 25 March 1999*

NOTE: * means Non-Compliance ^ means Comment Only

VIRGINIA HAZARDOUS WASTE MANAGEMENT REGULATIONS

PART/ SECTION		REGULATION	YES NO NA
6.3.	1.	Is a manifest system currently being used for all hazardous waste shipped off site?	YES
6.2.C.	2.	Has the generator determined that the facility has an EPA ID number?	YES
5.5.A.7.	3.	Has the generator determined that the transporter has a valid EPA ID number and a valid Virginia Transporter permit?	
6.3. 5.3.B.	4.	Is the following information on the manifest:	
5.3.B.1.		A. The generator's name, mailing address, EPA ID number, and telephone number?	YES
5.3.B.2.		B. A unique five digit number assigned to the manifest by the generator?	NO*
5.3.B.3.		C. The total number of pages of the manifest?	YES
5.3.B.4.		D. The company name and EPA ID number of each transporter used?	YES
5.3.B.5.		E. The company name, site address, and EPA ID number of the facility designated to receive the waste?	YES
5.3.B.6.		F. The U.S. DOT description of each waste to include its proper shipping name, hazard class, and I.D. number (UN/NA) as identified in the Virginia Regulations Governing the Transportation of Hazardous Material?	YES^
5.3.B.7.		G. The quantities of waste being shipped? and	YES

PART/ SECTION	REGULATION	YES NO NA
5.3.C.	H. The following 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 (mode of transportation) according to applicable international and national governmental regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to a degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and environment. OR, If I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.	YES
6.5.C.1.b.	5. Have manifests been received from the TSD facility for any waste which was shipped over 45 days ago?	YES
6.5.C.1.b.	6. If no, has the generator filed an exception report with the Executive Director?	NA
6.5.C.1.b.	7. Does the exception report include:	
6.5.C.1.b.(1)	A. A legible copy of the manifest for which the generator does not have confirmation of the delivery? and	NA
6.5.C.1.b.(2)	B. A cover letter explaining the efforts taken to locate the shipment?	NA
6.4.E.1.d. 9.1.G.1.	8. Have facility personnel successfully completed a program of classroom training or on-the-job training in hazardous waste management procedures?	YES
9.1.G.2.	9. Have new employees to the facility successfully completed training mentioned above within six months of their employment or assignment to the facility?	YES
9.1.G.3.	10. Do personnel participate in an annual review of the initial training?	YES
9.1.G.4.	11. Does the owner/operator maintain the following documents and records at the facility:	
9.1.G.4.a.	A. Job titles for each position at the facility related to hazardous waste management?	YES
9.1.G.4.a.	B. The name of the employee filling each job?	YES
9.1.G.4.b.	C. A written job description for each position in 11.A. above?	YES
9.1.G.4.c.	D. A written description of the type and amount of both introductory and continuing training that will be given to each person filling a position listed in 11.A. above? and,	YES
9.1.G.4.d.	E. Records that document that the training or job experience required above has been given to, and completed by facility personnel?	YES
6.4.E.1.d. 9.2.B. 9.2.D.	12. At the facility, is the following equipment installed:	
9.2.B.1.	A. An internal communications or alarm system capable of providing immediate emergency instruction to facility personnel if the hazardous waste generation or accumulation areas are threatened by hazardous waste release, fire or explosion?	YES^

PART/ SECTION		REGULATION	YES NO NA
9.2.B.2.		B. A device (at the scene of hazardous waste generator operations) capable of summoning emergency assistance from Police, Fire Departments, etc.?	YES^
9.2.B.3.		C. Portable fire extinguishers, fire control equipment and decontamination equipment? and	YES
9.2.B.4.		D. Water at adequate volume and pressure to supply expected fire demands, foam producing equipment, automatic sprinklers or water spray system?	YES^
9.2.C.	13.	Is the above equipment tested and maintained as necessary to assure proper operation and is a record of the tests and inspections maintained on a log at the facility?	YES
9.2.E.	14.	Does the facility have adequate aisle space to allow the unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment during emergencies?	YES
6.4.E.1.d. 9.1.F.4.	15.	Does the generator record inspections of the accumulation area at his facility in an inspection log?	YES
9.2.F.1.	16.	Has the facility attempted to arrange agreements with the local authorities such that:	
9.2.F.1.a.		A. The police, fire and emergency response teams are familiar with the layout of the site, the properties of the hazardous waste handled at the site, normal working areas, entrances to roads inside the facility and possible evacuation routes?	YES
9.2.F.1.b.		B. Where more than one police and fire department might respond to an emergency, do agreements specify a primary emergency authority?	YES
9.2.F.1.c.		C. Agreements with Commonwealth emergency response teams, emergency response contractors and equipment suppliers are specified? and	YES
9.2.F.1.d.		D. The local hospital is familiar with the properties of the hazardous wastes handled and the types of injuries or illnesses which could result from fires, explosions, or releases?	YES
6.4.E.1.d. 9.3.A.1.	17.	Does the facility have an established contingency plan to deal with any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to the air, soil, ground water or surface water?	YES
9.3.B.	18.	Does the contingency plan contain the following elements:	
9.3.B.(1,2)		A. A detailed description of emergency procedures facility personnel will implement in response to fires, explosions, or unplanned releases of hazardous waste to air, soil, and water?	YES
9.3.B.3.		B. A description of arrangements agreed to by local police departments, fire departments, hospitals, contractors and Commonwealth and local emergency response teams to coordinate emergency services, as required?	YES

PART/ SECTION		REGULATION	YES NO NA
9.3.B.4.		C. A listing of names, addresses, and office and home phone numbers of all persons qualified to act as emergency coordinator? List primary Coordinator. *NAME: RICH STEWART* *TITLE: EMERGENCY COORDINATOR* *HOME: (540)789-7424 OFFICE: (540)952-2026*	YES
9.3.B.5.		D. A list of appropriate emergency equipment necessary to cope with emergencies at the generator facility? Does this list of emergency equipment specify the location and physical description of each item on the list and a brief outline of its capabilities?	YES
9.3.B.6.		E. An evacuation plan for the generator facility where there is a possibility that evacuation could be necessary? and	YES
9.3.C.2.		F. Have copies of the contingency plan been sent to all local police departments, fire departments, hospitals and Commonwealth and local emergency response teams? *** PLEASE LIST ON THE LAST PAGE UNDER "COMMENTS".	YES^
9.3.F.	19.	Has the contingency plan ever been implemented?	NO
9.3.F.(9,10)	20.	If yes, was a written report filed with the Director within 15 days and were the Director and other required authorities properly notified before operations resumed?	NA
6.5.A.1., 2., & 3.	21.	Does the generator retain copies of all manifests, annual reports, exception reports, test results, and waste analysis for at least three years?	YES
6.5.B.1.	22.	Has the facility submitted an annual report for the preceding calendar year by March 1? *BIANNUAL REPORT FOR 1997 SUBMITTED IN 3/98.*	YES
6.4.E.7.	23.	Does the generator who manages HW prohibited under Part XV treat waste in tanks and containers? If yes, must meet requirements of 6.4.E. and 15.1.G.1.d.	NO
15.1.G.1.d.	24.	If the generator treats waste in tanks or containers, has the generator developed a written waste analysis plan and kept on-site in the generator's records. Has the generator filed a plan with director at least 30 days prior to treatment.	NA
6.5.D.	25.	Has the generator ever submitted a release report if responsible for release of HW which threatens public health. (Must notify NRC, local Government, the Department.)	NO
6.4.E.2.	26.	Does the generator accumulate (store) hazardous waste in containers or tanks on-site for greater than 90 days? If yes, interim status or a TSD permit is required. (Up to a 30 day extension may be granted by the Director.)	YES*
6.4.E.1.e.	27.	Has the generator notified the Executive Director by March 1, 1988, of the exact location of the existing container and tank accumulation areas, and at least 15 days prior to use for subsequently established accumulation areas?	YES

PART/ SECTION		REGULATION	YES NO NA
6.4.E.1.a.(1) 9.8.	28.	The Use and Management of Containers for 90 Day Accumulation Areas:	
6.4.E.1.a 9.8.B.	29.	Are all containers holding hazardous waste in good condition, i.e., not showing signs of leakage or corrosion or any other deterioration/deformation? If No, list the accumulation areas where there are problems and the type of problems.	YES
6.4.E.1.a. 9.8.C.	30.	Are the containers lined or made of materials compatible with hazardous waste placed into them so that the container will not react with, or otherwise be incompatible with, the hazardous wastes stored?	YES
6.4.E.1.b.	31.	Is the date upon which each period of accumulation begins clearly marked and visible for inspection on each container?	YES
6.4.E.1.c.	32.	Is the container labeled or marked clearly with the words "Hazardous Waste".	NO*
9.8.D.1.	33.	Are all containers holding hazardous waste kept closed during storage except as necessary to add or remove waste? If No, list the locations where open containers are found.	YES
9.8.E.	34.	Are the areas where hazardous waste containers are stored inspected by the owner/operator at least weekly?	YES
9.8.F.	35.	Are containers holding ignitable or reactive waste located at least 50 feet from the facility's property line?	YES
9.8.G.1.	36.	Are incompatible wastes placed in separate containers?	YES
9.8.G.3.	37.	Are storage containers holding hazardous wastes which are incompatible with any materials or other hazardous wastes stored nearby separated from the other materials or protected from them by means of dikes, berms, walls, or other devices?	YES
6.4.E.3.a.	38.	Does the generator have satellite accumulation areas where up to 55 gal of any one type of HW (1 QT acutely HW) are accumulated? If yes,	YES
6.4.E.3.a.		A. Is the area located at or near the point of hazardous waste generation where the wastes initially accumulate?	NO^
6.4.E.3.a.(1) 9.8.B.		B. Are the containers in good condition?	YES
6.4.E.3.a.(1) 9.8.C.		C. Are the containers compatible with the waste?	YES
6.4.E.3.a.(1) 9.8.D.1.		D. Are the containers kept closed except as necessary to add or remove waste?	YES
6.4.E.3.a.(2)		E. Are the containers marked with the words "Hazardous Waste" or other words that identify the contents of the container? and	YES
6.4.E.3.b.		F. Are amounts in excess of those allowed being accumulated in the satellite accumulation area? If yes,	NO
6.4.E.3.b.		1) Has the generator marked the excess amount with the date the excess amount began accumulating?	NA

PART/ SECTION		REGULATION	YES NO NA
6.4.E.3.b.		2) Has the generator either removed the excess amount within three days of the date of excess accumulations or has he complied with all other provisions for accumulation areas? Namely, has he notified the Executive Director about the location of the accumulation area?	NA
	39.	PLEASE LIST ANY NEWLY REGULATED WASTE THAT IS NOT LAND RESTRICTED (such as D018-D043, F032, F034 or F035) ON THE LAST PAGE UNDER "COMMENTS".	
15.1.A.2.	40.	Does the facility generate, transport, treat, store or dispose any land-restricted wastes? (See VHWMR Part 15) ***	YES
15.1.A.3.	41.	Is land disposal of wastes occurring? If yes,	NO
15.1.A.3.a.		A. Has the facility been granted an extension to the effective date for land restriction applicable to its restricted waste? OR	NA
15.1.A.3.b.		B. Has the facility been granted an exemption from prohibition pursuant to a petition for those land-restricted wastes and units covered by the petition? OR	NA
15.1.A.3.c.		C. Are the wastes hazardous only because they exhibit a hazardous characteristic and are they disposed outside the Commonwealth into an injection well without exhibiting any prohibited characteristic of hazardous waste at the point of injection?	NA
15.1.E.	42.	Has the owner/operator submitted an application for case-by-case extension to the effective date of any applicable restriction?	NA
15.1.F.	43.	Has the owner/operator been granted a petition seeking an exemption from a prohibition for the disposal of hazardous waste in a particular unit or units?	NA
15.1.C.1.	44.	Are facility representatives diluting the restricted waste or residual from treatment of the restricted waste as a substitute for adequate treatment, to circumvent the effective date of prohibition, to otherwise avoid a prohibition, or to circumvent a land disposal prohibition?	NO
15.1.D.1.	45.	Is the facility treating land-restricted wastes in a surface impoundment or series of surface impoundments? (Note: Evaporation of hazardous constituents in a surface impoundment as the principal means of treatment is not considered to be an acceptable form of treatment for land restricted wastes.)	NO
	46.	If yes, does the facility meet the following requirements:	
15.1.D.1.b. 15.1.G. 15.3.C. 15.4. 15.3.		A. Are the residues of the treatment analyzed as specified in VHWMR § 15.1.G. or § 15.3.C. to determine if they meet the applicable treatment standards or VHWMR § 15.4. or where no applicable treatment standard exists, the applicable prohibition levels specified in VHWMR § 15.3?	NA
15.1.D.1.c. 9.10.B.1. 10.10.B.3.		B. Has the owner/operator installed two or more liners and a leachate collection system consisting of an upper and lower liner designed, constructed and operated to prevent the migration of any constituents through the liner?	NA

PART/ SECTION		REGULATION	YES NO NA
15.1.D.1.c. 10.5.		C. Is the facility in compliance with the applicable groundwater monitoring requirements of VHWMR § 10.5?	NA
15.1.D.1.d.		D. Has the owner/operator submitted a written certification to the Executive Director that the requirements of 15.1.D.1.c. have been met which states: "I certify under penalty of law that the requirements of 15.1.D.1.c. have been met for all surface impoundments being used to treat restricted wastes. I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment." and	NA
15.1.D.1.d.		E. Has the owner/operator submitted a copy of the waste analysis plan for his restricted wastes accompanied by the above certification?	NA
15.1.G.1.a.	47.	For restricted wastes which the generator is managing for which he has not met the applicable treatment standards, has the generator accompanied each shipment of waste with a notification to the treatment facility of the appropriate treatment standards and any applicable prohibitions?	YES
	48.	Did the notification include the following information:	
15.1.G.1. a.(1)		A. EPA Hazardous Waste Number?	YES
15.1.G.1. a.(2)		B. The corresponding treatment standards and all applicable prohibitions set forth in VHWMR § 15.3.C.?	YES
15.1.G.1. a.(3)		C. The manifest number associated with the shipment of waste? and	YES
15.1.G.1. a.(4)		D. Waste analysis data, where available?	YES
15.1.G. 1.b.	49.	For restricted wastes which the generator has determined can be land disposed without further treatment, has the generator accompanied each shipment of waste with a notification and certification to the land disposal facility that the waste meets the applicable treatment standards and the applicable prohibitions of VHWMR § 15.3.C.?	NA
	50.	Did the notification include the following information:	
15.1.G.1. b.(1)(a)		A. EPA Hazardous Waste Number?	NA
15.1.G.1. b.(1)(b)		B. The corresponding treatment standards and all applicable prohibitions?	NA
15.1.G.1. b.(1)(c)		C. The manifest number associated with the shipment of waste? and	NA
15.1.G.1. b.(1)(d)		D. Waste analysis date, where available?	NA

PART/ SECTION		REGULATION	YES NO NA
15.1.G.1. b.2.	51.	Was the certification signed by an authorized representative, and did it state the following: "I certify under penalty of law that I personally have examined and am familiar with the waste through analysis and testing or through knowledge of the waste to support this certification that the waste complies with the treatment standards specified in VHWMR § 15.4. and all applicable prohibitions set forth in VHWMR § 15.3.C. I believe that the information I submitted is true, accurate and complete. I am aware that there are significant penalties for submitting a false certification, including the possibility of a fine and imprisonment."	NA
15.1.G.1.c.	52.	Has the generator received a case-by-case exemption on restricted waste, been granted an exemption through petition, or those wastes subject to a national variance, has the generator forwarded notice with the waste to the land disposal facility stating that the waste is exempt from the land disposal restrictions?	NO
15.1.G.1.g.	53.	Does the generator retain on-site copies of all notices, certifications, demonstrations, waste analysis data, and other documentation for at least five years from the date the waste was last sent to on-site or off-site treatment, storage or disposal?	YES
15.5.	54.	Is the generator storing land restricted waste? (For one year storage only)	NO
15.5.1.a.	55.	If yes, is the storage on-site solely for the purpose of the accumulation of such quantities of hazardous waste as necessary to facilitate proper recovery, treatment or disposal?	NA

Comments:

**4.B. The facility failed to assign an unique five digit number to shipments on two separate occasions. Hazardous waste shipments made on 8/21/97 and 10/31/97 to Phibro-Tech were accompanied by manifests, which were assigned the same number 00028. The second occurrence happened on 1/7/98 and 2/11/98, when both hazardous waste shipments to Phibro-Tech were accompanied by manifests assigned the same number 00030.*

The error was discussed with facility representatives, and it was stressed that each manifest for each hazardous waste shipment must be assigned an unique five digit number.

^4.F. Prior to mid-1998, the facility shipped waste ferric chloride as a hazardous waste to an appropriate TSDF. Beginning in mid-1998 and continuing through the present, the facility ships the waste ferric chloride solution from its process to a wastewater treatment plant in Cleveland, Ohio under a bill of lading. The WWTP uses the ferric chloride as a raw material or flocculent aid.

During the inspection, the bill of ladings for the ferric chloride shipments were reviewed. The inspector noted that the DOT shipping name changed several times, i.e., used ferric chloride, waste ferric chloride and ferric chloride solution, as did the UN number and packing group assignment. As was discussed with the facility representatives, the facility should choose the appropriate DOT shipping name, use the DOT shipping name consistently and train facility personnel accordingly.

^12.A. For internal communications, the facility uses radios, pagers, intercom and audible fire alarms.

^12.B. The facility's alarm system is acknowledged by a contracted security company, Security Central, who, in turn, notifies the local emergency response agencies.

^12.D. The facility uses well water and the local fire department is equipped with a water and foam tanker.

^18. The Contingency Plan has been distributed to the following agencies and companies:

Tri-Area Health Clinic
Patrick County Sheriff
Vesta Rescue Squad
Meadows of Dan Fire Department
Laurel Fork Rescue Squad
Laurel Fork Fire Department

**26. During the inspection of the Building B Accumulation Area, the inspector noted a 55-gallon drum of sludge from tank #5 with an accumulation start date of 11/20/98. With an accumulation start date of 11/20/98, in order to meet the 90-day accumulation limitation, the facility should have shipped the drum off-site by February 20, 1999.*

Facility representatives stated that the drum was part of a routine cleaning of tanks #5 and #6 which had generated several 55-gallon drums of sludge material. All of the drums from the cleaning activity had been previously shipped off-site with the exception of the one drum, and the one drum was held because it was only one-quarter full.

It was discussed during the inspection that once a container of hazardous waste is moved to the accumulation area and an accumulation start date is assigned to the container, the facility, as a large quantity generator, has 90-days to ship the waste off-site to an appropriate TSDF. For similar situations in the future, the inspector suggested the facility designate a satellite accumulation area adjacent to the storage tank room. A partially filled drum from routine cleaning may be placed in the satellite accumulation area until it is full with no time limitations.

**32. During the inspection of the Building A Accumulation Area, the inspector noted that the 1,500-gallon hazardous waste storage tank was not labeled with the words "Hazardous Waste." The facility representatives corrected the error in the presence of the inspector.*

When a drum or container is in a satellite accumulation area, the facility may choose to place a label containing either the contents or the words "Hazardous Waste" on the outside of the container. However, once the container is moved to the accumulation area, the container must be labeled with the words "Hazardous Waste" and the accumulation start date must be entered in an appropriate space.

^38.A. On occasion, the facility receives dies from customers for repair. Receiving personnel will clean shipping tape and dirt from the die in a vat containing a solvent. The waste solvent and debris are collected in a 55-gallon drum. The drum is not kept in a satellite accumulation area in the receiving department but is kept in the Building B Accumulation Area. The facility has chosen to keep the drum in the accumulation area due to safety concerns relating to heavy traffic in the receiving area.

January 1994

DEPARTMENT OF ENVIRONMENTAL QUALITY
WASTE DIVISION

CHECKLIST FOR HAZARDOUS WASTE INSPECTION OF TANKS

FACILITY NAME : *Micrometrics Systems*

EPA ID NUMBER : *VAD075612564*

INSPECTION DATE : *18 and 25 March 1999*

NOTE: * means Non-Compliance

VIRGINIA HAZARDOUS WASTE MANAGEMENT REGULATIONS

PART/ SECTION		REGULATION	YES NO NA
6.4.E.1.e.	1.	Has the generator notified the Executive Director of the location of all hazardous waste tank accumulation areas?	YES
		A. List all of the tank accumulation areas and give a brief description of each one in the Comment Section. Include the age of each tank, if Known and the type of waste accumulated.	
6.4.E.2.		B. Is the tank used to accumulate hazardous waste for greater than 90 days? If YES,	NO
		C. Then has the facility applied for a hazardous waste Storage Permit? (If NO, complete the Unauthorized Facility Checklist).	NA
6.4.E.1.c.	2.	Is each tank marked with the words "Hazardous Waste"?	NO*
9.9.A.1.	3.	Is the tank used to store or treat hazardous waste that contains no free liquids as demonstrated by the Paint Filter Liquids Test (i.e., solids only)? If yes, exempted from 9.9.D.(Items # 5-15 below.)	NO
9.9.A.2.	4.	Does the tank (including sumps) serve as part of a primary secondary containment system to collect or contain releases of hazardous waste? If yes, exempted from 9.9.D.(Items # 5-15 below.)	NO
9.9.D.1.	5.	Has secondary containment been provided for each of the following units in order to prevent the release of HW to the environment:	
9.9.D.1.a.		A. New tank systems installed since January 1, 1988?	YES
9.9.D.1.b.		B. Existing tanks used to store or treat F020, F021, F022, F023, F026, or F027?	NA
9.9.D.1.c.		C. Existing tanks whose documented age is greater than fifteen years of age?	NA
9.9.D.1.c.		D. Existing tanks whose documented age is less than fifteen years of age? If yes, when will the tank become fifteen years old? *** PLEASE REMARK ON THE LAST PAGE UNDER "COMMENTS".	YES

PART/ SECTION		REGULATION	YES NO NA
9.9.D.1.d.		E. Existing tanks for which the age cannot be documented within eight years of January 12, 1987? But, if facility is greater than 7 years old, by time reaches 15 year old? If yes, when will the facility become fifteen years old? *** PLEASE REMARK ON THE LAST PAGE UNDER "COMMENTS". and	NA
9.9.D.1.e.		F. Tank systems that store or treat materials that become hazardous wastes subsequent to January 12, 1987, within time intervals required in §9.9.D.1.a. through 9.9.D.1.d.?	NA
9.9.D.2.	6.	Does the secondary containment provided for units above meet the following requirements:	
9.9.D.2.a.		A. Is the secondary containment designed, installed and operated to prevent any migration of wastes or accumulated liquid out of the system to the soil, groundwater, or surface water at any time during the use of the tank system?	YES
9.9.D.2.b.		B. Is the secondary containment system capable of detecting and collecting any releases and accumulated liquids until the collected material can be removed?	YES
9.9.D.3.a.		C. Is the secondary containment constructed of or lined with materials that are compatible with the waste(s) to be placed in the tank system and of sufficient strength and thickness to prevent failure due to pressure gradients, physical contact with the waste, climatic conditions, stress of installation, and the stress of daily operation?	YES
9.9.D.3.b.		D. Is the secondary containment placed on a foundation or base capable of providing support to the secondary containment system and resistance to pressure gradients above and below the system owing to settlement, compression or uplift?	YES
9.9.D.3.c.		E. Is the secondary containment provided with a leak-detection system that is designed or operated so that it will detect the presence of any release of hazardous waste or accumulated liquid in the secondary containment system within 24 hours or at the earliest practicable time if the existing detection technology or site conditions will not allow detection of a release within 24 hours? and	YES
9.9.D.3.d.		F. Is the secondary containment system sloped or otherwise designed or operated to drain and remove liquids resulting from leaks, spills, or precipitation, and has waste that has spilled or leaked and accumulated precipitation been removed from the secondary containment within 24 hours or in as timely a manner as possible to prevent harm to human health or the environment?	YES
9.9.D.4.	7.	Does the secondary containment for the tanks consist of one or more of the following:	
9.9.D.4.a.		A. A liner (external to the tank);	NO
9.9.D.4.b.		B. A vault; *BUILDING B*	YES
9.9.D.4.c.		C. A double-walled tank; OR *BUILDING A*	YES
9.9.D.4.d.		D. An equivalent device as approved by the Director?	NA

PART/ SECTION		REGULATION	YES NO NA
		FOR EXTERNAL LINER SYSTEMS ONLY:	
9.9.D.5.a.	8.	Is the external liner system:	
9.9.D.5.a.(1)		A. Designed or operated to contain 100% of the capacity of the largest tank within its boundary;	NA
9.9.D.5.a.(2)		B. Designed or operated to prevent run-on or infiltration of precipitation into the secondary containment system unless the collection system has sufficient excess capacity to contain the precipitation from a 25 year, 24 hour rainfall event?	NA
9.9.D.5.a.(3)		C. Free of cracks or gaps? and	NA
9.9.D.5.a.(4)		D. Designed and installed to completely surround the tank and to cover all surrounding earth likely to come into contact with the waste if released from the tank?	NA
		FOR VAULT SYSTEMS ONLY:	
9.9.D.5.b.	9.	Is the vault system:	
9.9.D.5.b.(1)		A. Designed or operated to contain 100% of the capacity of the largest tank within its boundary?	YES
9.9.D.5.b.(2)		B. Designed or operated to prevent run-on or infiltration of precipitation into the secondary containment system unless the collection system has sufficient capacity to contain the precipitation form a 25 year, 24 hour rainfall event?	YES
9.9.D.5.b.(3)		C. Constructed with chemical-resistant water stops in place at all joints (if any)?	YES
9.9.D.5.b.(4)		D. Provided with an impermeable interior coating or lining that is compatible with stored waste that will prevent migration of waste into the concrete?	YES
9.9.D.5.b.(5)		E. Provided with a means to protect against the formation of and ignition of vapors within the vault, if the waste being stored or treated is ignitable or reactive? and	NA
9.9.D.5.b.(6)		F. Provided with an exterior moisture barrier or be otherwise designed or operated to prevent migration of moisture into the vault if the vault is subject to hydraulic pressure?	YES
		FOR DOUBLE-WALLED TANKS ONLY:	
9.9.D.5.c.	10.	Is the double-walled tank:	
9.9.D.5.c.(1)		A. Designed as an integral structure (i.e., an inner tank with an outer shell) so that any release from the inner tank is contained by the outer shell;	YES
9.9.D.5.c.(2)		B. Protected, if constructed of metal, from both corrosion of the primary tank interior and the external surface of the outer shell; and	NA
9.9.D.5.c.(3)		C. Provided with a built-in, continuous leak detection system capable of detecting a release within 24 hours or at the earliest practicable time?	YES
	11.	FOR ALL TANK UNITS:	

PART/ SECTION		REGULATION	YES NO NA
9.9.D.6.	12.	Does the tank system have ancillary equipment?	YES
9.9.D.6.	13.	If yes, does the ancillary equipment have secondary containment (e.g., trench, jacketing, double-walled piping) which meets the requirements above? If no, PLEASE EXPLAIN ON THE LAST PAGE UNDER "COMMENTS".	YES
9.9.D.8.	14.	For all tank systems for which secondary containment meeting the above requirements has not yet been provided, has the facility complied with the following for the units:	
9.9.D.8.a.		A. For non-enterable underground tanks, has a leak test been conducted at least annually?	NA
9.9.D.8.b.		B. For other than non-enterable underground tanks and for all ancillary equipment, an annual leak test or other internal inspection or other tank integrity examination by an independent, Virginia registered professional engineer that addresses cracks, leaks, corrosion and erosion conducted at least annually? and	NA
9.9.D.8.c.		C. Has the owner/operator maintained on file at the facility a record of the results of the above assessments?	NA
9.9.D.8.d.	15.	If found to be leaking or unfit for use, owner/operator shall comply with 9.9.G. (Item # 24) below.	
9.9.B.1.	16.	For each existing tank system which does not have secondary containment meeting the requirements of VHWMR Section 9.9.D., has the owner/operator determined that the tank system is not leaking or is unfit for use?	NA
	17.	If yes, is a copy of this written assessment reviewed and certified by an independent Virginia registered professional engineer and kept on file at the facility? (If found to be leaking, must comply with 9.9.G.). (Item # 24 below).	NA
9.9.E.2.	18.	Has the owner/operator used appropriate controls and practices to prevent spills and overflows from tank or secondary containment systems, including:	YES
9.9.E.2.a.		A. Spill prevention controls (e.g., check valves, dry disconnect couplings)? *** DESCRIBE ON THE LAST PAGE UNDER "COMMENTS".	YES
9.9.E.2.b.		B. Overfill prevention controls (e.g., level sensing devices, high level alarms, automatic feed cutoff, or bypass to a standby tank)? DESCRIBE ON THE LAST PAGE UNDER "COMMENTS". and,	YES
9.9.E.2.c.		C. Maintenance of sufficient freeboard in uncovered tanks to prevent overtopping by wave or wind action or by precipitation?	NA
9.9.E.3.	19.	Owner/operator shall comply with 9.9.G. below if a leak or spill occurs.	
9.9.F.1.	20.	Does the owner/operator inspect the following at least once each operating day:	
9.9.F.1.a.		A. Overfill/spill control equipment (e.g., waste-feed cutoff systems, bypass systems, and drainage systems) to ensure that it is in good working order?	YES

PART/ SECTION		REGULATION	YES NO NA
9.9.F.1.b.		B. The aboveground portions of the tank system, if any, to detect corrosion or releases of waste?	YES
9.9.F.1.c.		C. Data gathered from monitoring equipment and leak detection equipment (e.g., pressure and temperature gauges, monitoring wells) to ensure that the tank system is being operated according to its design; and	YES
9.9.F.1.d.		D. The construction materials and the area immediately surrounding the externally accessible portion of the tank system including secondary containment structures to detect erosion or signs or releases of hazardous waste?	YES
9.9.F.2.	21.	For all underground and in-ground hazardous waste storage tanks, are cathodic protection systems present?	NA
	22.	If yes, is the cathodic protection inspected according to the following schedule:	
9.9.F.2.a.		A. The proper operation of the cathodic protection system shall be confirmed within six months after initial installation, and annually thereafter; and	NA
9.9.F.2.b.		B. All sources of impressed current shall be inspected and/or tested, as appropriate, at least bimonthly (i.e., every other month).	NA
9.9.F.3. 9.1.F.4.	23.	Are the inspections in 9.9.F.1. and 9.9.F.2. documented in the facility operating record or log?	YES
9.9.G.	24.	For tank systems or secondary containment which have been determined to be leaking or unfit for use, or from which there has been a leak or spill, has the owner/operator satisfied the following requirements:	
9.9.G.1.		A. Has the owner/operator immediately stopped the flow of hazardous waste into the tank system or secondary containment and inspected the system to determine the cause of release?	NA
9.9.G.2.a.		B. For releases from the tank system, has the owner/operator within 24 hours or at the earliest practicable time, removed as much of the waste as is necessary to prevent further release of hazardous waste to the environment and to allow inspection and repair of the tank system?	NA
9.9.G.2.b.		C. For releases to a secondary containment system, have all released materials been removed within 24 hours or in as timely manner as is possible to prevent harm to human health and the environment?	NA
9.9.G.3.a.		D. Has the owner/operator prevented further migration of the leak or spills to soils or surface water? and	NA
9.9.G.3.b.		E.. Has the owner/operator removed and properly disposed of any visible contamination of the soil or surface water?	NA
9.9.G.4.a.	25.	Have all releases to the environment been reported to the Director within 24 hours of detection?	NA
9.9.G.4.c.	26.	Within 30 days of detection of release, has a report been submitted to the Director?	NA
	27.	If yes, did the report contain the following information:	

PART/ SECTION		REGULATION	YES NO NA
9.9.G.4.c.(1)		A. Likely route of migration of the release?	NA
9.9.G.4.c.(2)		B. Characteristics of the surrounding soil?	NA
9.9.G.4.c.(3)		C. Results of any monitoring or sampling conducted in connection with the release, if available, or as soon as they became available?	NA
9.9.G.4.c.(4)		D. Proximity to downgradient drinking water, surface water, and population areas; and	NA
9.9.G.4.c.(5)		E. Description of response actions taken or planned?	NA
9.9.G.5.c.	28.	If the cause of the release was a leak from the primary tank system into the secondary containment system, was the system repaired prior to returning the tank system to service?	NA
9.9.G.5.d.	29.	If the cause of the release was a leak to the environment from an underground or on-ground component of a tank system without secondary containment, did the owner/operator provide secondary containment before returning the unit to service?	NA
9.9.G.5.d.	30.	If the cause of the release was a leak to the environment from an aboveground component of a tank system without secondary containment, was the component visually inspected and repaired?	NA
9.9.G.6.	31.	For all units which have been repaired, if any, did the owner/operator obtain certification from an independent, Virginia registered professional engineer that the repaired system is capable of handling hazardous wastes without release for the intended life of the system prior to returning the unit to service?	NA
9.9.H.1.	32.	At closure of any hazardous waste tank system, did the owner/operator remove or decontaminate all hazardous waste residues, contaminated containment system components, contaminated soil, and structures and equipment contaminated with waste, and manage them as hazardous waste?	NA
9.9.I.	33.	Are ignitable or reactive wastes placed in the tank system? If yes,	NO
9.9.I.1.a.		A. Was the waste treated, rendered or mixed before or immediately after placement in the tank system so that the resulting waste, mixture or dissolved material no longer meets the definition of ignitable or reactive waste; OR	NA
9.9.I.1.b.		B. The waste is stored or treated in such a way that it is protected from any material or conditions that may cause the waste to ignite or react; OR	NA
9.9.I.1.c.		C. The tank system is used solely for emergencies?	NA
9.9.I.2.		D. Does the owner/operator comply with the requirements for the maintenance of protective distances between the waste management area and any public ways, streets, alleys or an adjoining property line as required in NFPA's "Flammable and Combustible Liquids Code"?	NA
9.9.J.1.	34.	Are incompatible wastes, or incompatible wastes and materials placed in the same tank system?	NO
9.9.J.2.	35.	If yes, was the tank and all related equipment decontaminated first?	NA

PART/ SECTION	REGULATION	YES NO NA
	For Treatment,Storage Facilities only.	
9.9.K.	36. If yes, does the facility meet the following requirements:	
9.9.K.1.	A. Did the owner/operator first conduct waste analyses and trial treatment or storage tests?	NA
9.9.K.2.	B. Did the owner/operator obtain written, documented information on similar waste under similar operating conditions to show that the proposed treatment or storage will not cause the tank, ancillary equipment or the secondary containment to rupture, leak, corrode or otherwise fail?	NA

Comments:

LOCATION	*NO. OF TANKS*	*CAPACITY*	*TYPE OF WASTE STORED*
BUILDING A Accumulation Area	*1*	*1,500 Gallons*	*Waste Corrosive Liquid (D002, D007, D009)*
BUIDLING B Tankd Room (Tank #7)	*1*	*3,500 Gallons*	*Waste Ferric Chloride Solution (D002, D007, D008)*

NOTE: Tank # 7 is used to store waste ferric chloride solution from the etching process. Prior to mid-1998, the facility sent the waste ferric chloride solution off-site as a hazardous waste. However, since mid-1998 and continuing through the present, the facility ships the waste ferric chloride solution to a wastewater treatment plant in Cleveland, Ohio, where the plant uses the ferric chloride as a product.

****2.** During the inspection of the Building A Accumulation Area, the inspector noted that the 1,500 gallon hazardous waste storage tank was not labeled with the words "Hazardous Waste." The facility representatives corrected the error in the presence of the inspector.*

***^8.B.** The tanks are equipped with high level alarms and shut off valves.*