UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET, SW
ATLANTA, GEORGIA 30303-8909

NOV 04 1999

4WD-RCRA

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. Earl Mahaffey, Chief
Chemical/Agricultural/Metal Manufacturing Branch
Environmental Compliance and Enforcement Division
Mississippi Department of Environmental Quality
P.O. Box 10385
Jackson, Mississippi 39285-0385

SUBJ: Hercules Incorporated
RCRA Compliance Evaluation Inspection Report
EPA ID No.: MSD 008 182 081

Dear Mr. Mahaffey:

Enclosed is a copy of the United States Environmental Protection Agency (EPA) inspection report for the RCRA portion of a multi-media inspection conducted at Hercules Incorporated in Hattiesburg, Mississippi, on August 11, 1999.

The site inspection revealed no violations of RCRA. However, an area of concern is the wastewater treatment sludge disposal area. EPA spoke with Mr. Mark Williams of MDEQ's Permit Program on October 19, 1999. Mr Williams stated that Hercules does not have a permit from the Solid Waste Program to dispose of the sludge on-site, therefore, Hercules is operating an unauthorized solid waste management unit.

EPA spoke with Mr. Chris Hawkins of MDEQ's Uncontrolled Sites Program on October 19, 1999. Mr. Hawkins stated that the contaminant, dioxathion, has been found in groundwater samples from the sludge disposal area and it is believed the sludge disposal area is the source of the dioxathion. EPA's Integrated Risk Information System (IRIS) database does not contain any information on dioxathion and EPA does not have a risk-based concentration for dioxathion. Mr. Hawkins stated that Mississippi State University may provide information on an acceptable concentration for dioxathion which MDEQ will utilize for any necessary corrective action.

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The sludge pit composite Toxicity Characteristic Leaching Procedure test results indicate the sludge is not a hazardous waste. EPA is deferring the issue to MDEQ's Permit Program and Uncontrolled Sites Program to address the solid waste disposal area.

If you have any questions, please contact John Kroske, of my staff, at (404) 562-8613.

Sincerely yours,

Jeffrey T. Pallas, Chief
South Enforcement and Compliance Section
RCRA Enforcement and Compliance Branch

Enclosure

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

4WD-RCRA

NOV 04 [redacted]

ORIGINATORS COPY

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. Charles S. Jordan, Environmental Coordinator
Hercules Incorporated
613 West Seventh Street
P.O. Drawer 1937
Hattiesburg, MS 39403

SUBJ: Hercules Incorporated
RCRA Compliance Evaluation Inspection Report
EPA ID No.: MSD 008 182 081

Dear Mr. Jordan:

Enclosed is a copy of the United States Environmental Protection Agency (EPA) inspection report for the RCRA portion of a multi-media inspection conducted at Hercules Incorporated in Hattiesburg, Mississippi, on August 11, 1999.

The site inspection revealed no violations of RCRA. However, issues related to the wastewater treatment sludge disposal area are discussed in the inspection report and EPA will be in communication with the Mississippi Department of Environmental Quality (MDEQ) regarding these issues. Pursuant to the Memorandum of Agreement between EPA and the State of Mississippi, EPA has forwarded a copy of the inspection report to the State.

If you should have any questions, please contact John Kroske, of my staff, at (404) 562-8613.

Sincerely,

Jeffrey T. Pallas, Chief
South Enforcement and Compliance Section
RCRA Enforcement and Compliance Branch

Enclosure

cc: Earl Mahaffey, MDEQ (letter only)

RCRA INSPECTION REPORT

1) **Inspector and Author of Report**

John Kroske
Environmental Engineer

2) **Facility Information**

Hercules Incorporated
613 West Seventh Street
P.O. Drawer 1937
Hattiesburg, MS 39403
EPA ID No.: MSD 008 182 081

3) **Responsible Official**

Mr. Charles S. Jordan
Environmental Coordinator
613 West Seventh Street
P.O. Drawer 1937
Hattiesburg, MS 39403
(601) 584-3360

4) **Inspection Participants**

John Kroske, U.S. Environmental Protection Agency (EPA)
Mohammad Yassin, Mississippi Department of Environmental Quality (MDEQ)
Charles Jordan, Hercules

5) **Date and Time of Inspection**

August 11, 1999
8:50 AM

6) **Applicable Regulations**

40 CFR Parts 260-270, 279
Mississippi Hazardous Waste Management Regulations (MHWMR) Parts 260-270, 279

7) **Purpose of Inspection**

This RCRA inspection was part of a Multi-Media Compliance Evaluation Inspection (CEI) conducted pursuant to the FY99 Memorandum of Agreement (MOA) between EPA and the State of Mississippi. The RCRA CEI was conducted to assess the facility's compliance with applicable regulations.

8) **Facility Description**

Hercules Inc. (HI) produces resin for gum and adhesives and also produces paper chemicals primarily for toilet tissue (to help it dissolve and impart wet-strength). Rosin is imported from a HI facility in Georgia to the HI Hattiesburg facility, where it is hydrogenated and processed into resin. Rosin used to be extracted and processed on site from tree stumps until HI began importing rosin from the HI facility in Georgia. The paper chemicals produced on-site include Kymene, Parecole and Neuphor.

The HI facility, in operation since 1921, has approximately 125 employees and is located on approximately 200 acres of land. HI is a Large Quantity Generator (LQG) of hazardous waste, which primarily includes filters, laboratory solvents, waste paint materials, off specification material, and fluorescent bulbs. EPA hazardous waste identification numbers include D001, F003, F005, D006, D008, U147, and D009. A LQG is a facility which generates greater than or equal to 1000 kilograms (2200 pounds) of hazardous waste per month. The hazardous waste accumulation time limit for a LQG is less than or equal to 90 days.

HI generates industrial wastewater which is treated on-site and discharged to the City of Hattiesburg sanitary sewer via a pretreatment permit. HI also has a stormwater permit for a stormwater outfall. The sludge generated from the wastewater treatment system is land disposed on-site. Toxicity Characteristic Leaching Procedure (TCLP) test results on the sludge (sludge pit composite, 5/13/98) indicate the sludge is not a hazardous waste. However, the MDEQ Uncontrolled Sites program has analyzed groundwater samples from the sludge disposal area and found a constituent of concern called dioxathion. It is believed the dioxathion is related to the sludge disposal area. MDEQ is investigating the properties of dioxathion, which is not listed in EPA's Integrated Risk Information System (IRIS) human health effects database, to determine an appropriate cleanup number. According to the MDEQ Permits program, Hercules does not have a solid waste disposal permit for the on-site disposal of the wastewater treatment sludge. As discussed later in this report, EPA will follow-up with MDEQ regarding the sludge disposal issue and any necessary corrective action.

9) **Findings**

Three types of paper chemicals, Neuphor, Parecole, and Kymene, are made in batch reactors. The finished resin products are then filtered and pumped to storage tanks before being shipped. Hercules has several satellite accumulation areas and one ninety-day storage area. Two steam boilers on-site are natural gas fired.

Ninety (90)-Day Storage Area

One fifty-five (55) gallon container of waste flammable liquid (toluene, acetone; D006/F003/F005), closed, labeled and dated 07/28/99, was located in the 90-day storage area. An inspection log book for recording weekly inspections of the 90-day storage area was located in the storage area. According to the facility, approximately two to six 55-gallon containers of hazardous waste are manifested every 90 days. No violations were observed.

Paint Shop Satellite Accumulation Area

Three fifty-five (55) gallon containers of hazardous waste were located in the paint shop area. One container contained waste paint solvent, one container contained latex paint, and one cardboard container contained aerosol cans. All containers were closed and labeled.

Auto Shop

The auto shop contained one parts washer which uses mineral spirits. Seven containers of used oil, closed and labeled, were located in the auto shop area, along with a 250-gallon tank of used oil, labeled "Used Oil". Six batteries for recycling were also located in this area. No violations were observed.

Boiler Shop Satellite Accumulation Area

Heavy equipment is serviced in the boiler shop. Some process tanks are lead-lined and any lead waste (D008) generated from welding activities is disposed of in a satellite accumulation container. The container was closed and labeled. No violations were observed.

Machine Shop

The machine shop generates scrap metal shavings/cuttings. Five fifty-five (55) gallon containers of scrap metal, closed and labeled, were located in the machine shop. The scrap metal is picked up for recycling.

Electric Shop Satellite Accumulation Area

The electric shop contained an eight gallon container of spent Nickel-Cadmium batteries for recycling. The container was closed and labeled. Two cardboard containers of spent fluorescent bulbs, labeled D009, were located in the electric shop. One satellite accumulation container of aerosol cans, closed and labeled, was also located in the electric shop.

Laboratory Satellite Accumulation Area

One 55-gallon satellite accumulation container of spent solvent, closed and labeled, was located outside the laboratory building. The laboratory consists of the control lab and the research and development (R&D) lab. Every tanker truck of product is checked for quality control purposes, and an outgoing batch of product can be reworked if it does not meet specifications. Inside the control lab was one 5-gallon satellite accumulation container of spent solvent, closed and labeled, and a 2-gallon satellite accumulation container of spent solvent, closed and labeled. One 5-gallon satellite accumulation container outside the lab area within the building, used to collect any spillage from the 2-gallon containers of toluene and acetone product solvent containers, was closed and labeled (D001/F003/F005). The R&D lab is no longer very active. One 5-gallon satellite accumulation container used to collect spillage from product solvent was located in the R&D lab. No violations were observed.

Wastewater Treatment Sludge Disposal Area

Sludge is removed from the wastewater treatment system at least annually and possibly two times per year, according to the facility. The TCLP results from a sludge pit composite sample taken 5/13/98 indicate the sludge is not a hazardous waste. According to the facility, the sludge is sampled every year or two and was scheduled to be sampled for TCLP testing on 8/12/99. EPA has not seen the TCLP sample results for the 8/12/99 scheduled testing. The sludge is disposed of on-site (Photographs 1-10). Two issues related to the sludge disposal include: 1) the potential need for corrective action related to the sludge disposal; and, 2) the need for a permit for on-site disposal of solid waste. The MDEQ Uncontrolled Sites program is currently investigating groundwater in the sludge disposal area and the MDEQ Permits program is investigating the solid waste disposal permit issue.

Records Review

The records review included inspection of Hercules' manifests, contingency plan, preparedness and prevention, biennial report (annual for MDEQ), and personnel training. No violations were observed.

Out Briefing

Hercules was informed of the inspectors' conclusions of the CEI.

10) **Signature**

John Kroske
Environmental Engineer

10/26/99
Date

11) **Concurrence**

Jeffrey T. Pallas, Chief
South Enforcement and Compliance Section
RCRA Enforcement and Compliance Branch

11/3/99
Date

PHOTOGRAPHS

Photograph #1
Wastewater treatment system sludge disposal area (looking northwest). (Note: Photos 1-7 are of sludge disposal area scanning from the northwest to the southeast).
Hercules Incorporated, Hattiesburg, MS
August 11, 1999

Photograph #2
Wastewater treatment system sludge disposal area.
Hercules Incorporated, Hattiesburg, MS
August 11, 1999

Photograph #3
Wastewater treatment system sludge disposal area.
Hercules Incorporated, Hattiesburg, MS
August 11, 1999

Photograph #4
Wastewater treatment system sludge disposal area.
Hercules Incorporated, Hattiesburg, MS
August 11, 1999

Photograph #5
Wastewater treatment system sludge disposal area.
Hercules Incorporated, Hattiesburg, MS
August 11, 1999

Photograph #6
Wastewater treatment system sludge disposal area.
Hercules Incorporated, Hattiesburg, MS
August 11, 1999

Photographs #7
Wastewater treatment system sludge disposal area.
Hercules Incorporated, Hattiesburg, MS
August 11, 1999

Photograph #8
Looking northwest at wastewater treatment system sludge disposal area approximately 20 feet to the northeast of Photograph 1.
Hercules Incorporated, Hattiesburg, MS
August 11, 1999

Photograph #9
Looking east at container in wastewater treatment system sludge.
Hercules Incorporated, Hattiesburg, MS
August 11, 1999

Photograph #10
Close-up of container in sludge from Photograph 9. Facility stated that yellow material in photograph is probably paraffin wax.
Hercules Incorporated, Hattiesburg, MS
August 11, 1999