

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION VIII

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Docket No. RCRA-8-2000-07

FILED EPA REGION VIII HEARING CLERK

IN THE MATTER OF: ) ADMINISTRATIVE ORDER
Rhodia Inc. and Rhône-Poulenc ) Proceeding Under § 7003 of the
P.O. Box 3146 ) Solid Waste Disposal Act,
Butte, MT 59702 ) as amended, 42 U.S.C. § 6973
EPA ID No. MTD 057 558 546 )
Respondents )

I. JURISDICTION

The United States Environmental Protection Agency Region VIII ("EPA"), has the authority to issue and therefore is issuing this Administrative Order ("Order") pursuant to Section 7003(a) of the Solid Waste Disposal Act, as amended (the "Act"), 42 U.S.C. § 6973(a) ("Section 7003").

II. INTRODUCTION

- A. Rhodia Inc. and its parent corporation and predecessor in interest, Rhône-Poulenc (hereinafter collectively referred to as "Respondents") are corporations authorized to do business in Montana.
B. Rhône-Poulenc owned and operated the Silver Bow facility until 1998 when Rhône-Poulenc transferred the facility to its subsidiary, Rhodia Inc. The Silver Bow facility is located off German Gulch Road in Silver Bow County, approximately seven miles west of Butte, Montana and approximately one mile south of Ramsey, Montana
C. Respondents are "persons" within the meaning of Section 1004 (15) of the Act, 42 U.S.C. § 6903(15).
D. Respondents have handled and stored "solid waste" within the meaning of Section 1004(27) of the Act, 42 U.S.C. § 6903(27) at all times relevant to the Order.
E. Based on evidence received, EPA has determined that Respondents' handling of solid waste at the Silver Bow facility may present an imminent and substantial endangerment to health or the environment within the meaning of Section 7003 of the Act, 42 U.S.C. § 6973.

F. Pursuant to Section 7003(a) of the Act, EPA has notified the State of Montana in this matter.

G. EPA hereby takes this action pursuant to Section 7003 having determined that the issuance of this Order is necessary to protect health or the environment.

### **III. PARTIES BOUND**

A. This Order shall apply and be binding upon Respondents and their officers, employees, agents, successors and assigns.

B. Respondents shall provide a copy of this Order to all contractors, subcontractors, laboratories, and consultants retained to conduct or monitor any portion of the work performed pursuant to this Order within seven (7) calendar days of the date of Respondents' receipt of this Order or date of such retention, and shall condition all such contracts on compliance with terms of this Order.

C. Respondents shall give notice to EPA thirty (30) or more days prior to transfer of ownership or operation of the Silver Bow facility.

### **IV. FINDINGS OF FACT**

A. Respondents are corporations doing business in the State of Montana.

B. At all times pertinent to this Order, Respondents have been duly registered with the Montana Secretary of State.

C. Respondent Rhône-Poulenc produced elemental phosphorous at the Silver Bow facility and ceased active production in December, 1995. Respondent Rhodia Inc. is currently in the process of dismantling structures at the Silver Bow facility.

D. The Silver Bow facility is located in a rural area, with scattered residences within one-half mile. Livestock are grazed on adjacent lands. A computer chip production plant and the Port of Montana are located on adjacent land. The area is heavily frequented by water fowl.

E. EPA inspected the Silver Bow facility from May 1-4, 2000 ("May 2000 Inspection"). At the time of the inspection, EPA observed a 100' diameter, open-topped, in-ground tank. This tank is known as the clarifier. Calculations indicate that the clarifier contains approximately 500,000 gallons of sludge and a "cap" of several feet of water.

F. Respondents have stated that the sludge is a phosphorous sludge and the water cap is used to prevent the sludge from contacting air.

G. EPA inspectors observed two wet areas of ground adjacent to the above-ground portion of the concrete wall of the 100' diameter tank. At one of the wet areas an inspector dug a hole into the ground and observed infiltration of liquid from the clarifier. Water leaked from the clarifier in quantities sufficient to lower the level of the clarifier several inches during the May 2000 Inspection.

H. In the process of sampling the leaking clarifier, an inspector inadvertently spilled a small amount of phosphorous sludge on the top edge of the wall of the leaking clarifier. As the phosphorous sludge dried it spontaneously started to smoke, then ignited, and burned persistently. The inspector doused the fire with several quarts of water. The phosphorous sludge continued to smolder and smoke. The inspector moved on to the adjacent sampling location. While sampling at the new location, the previously spilled phosphorous sludge re-ignited and burst into flame. Repeated dousing with several quarts of water was insufficient to extinguish the flames. The fire ultimately burned out. The ambient air temperature was 57 degrees Fahrenheit at the time of ignition.

I. The inspectors also placed varying quantities of phosphorous sludge, selected from different locations within the leaking clarifier, in three separate metal pans. As the material in each pan dried out, it smoked and spontaneously ignited in the same manner as the spilled sludge described above in paragraph H. The phosphorous sludge burned so persistently that it left scorch marks on the metal pans.

J. Phosphorous, when combined with water, will react to form phosphine gas. Inhalation of phosphine gas is acutely harmful, and is a severe health hazard. Exposure may cause damage to respiratory membranes, resulting in increased bronchial secretions, shortness of breath, weakness, fatigue, dizziness and fainting. Abdominal pain and vomiting may also occur. Phosphine is a central nervous system depressant and is toxic to the kidneys, resulting in albuminuria and hematuria. Lethal exposures result in pulmonary edema, convulsions and coma. Chronic exposures may result in permanent disturbances of sight, speech, motor functions and skeletal injuries. Phosphine is also considered highly flammable and may spontaneously combust in the air.

K. The inspectors utilized phosphine measuring devices above the surface of the leaking clarifier. This sampling indicated that the toxic gas phosphine was present above the surface of the leaking clarifier at concentrations that greatly exceeded OSHA standards. The OSHA time weighted average limit is 0.3 parts per million (ppm). Levels of phosphine as high as 1.08 ppm were detected.

L. The inspectors discovered piles of used furnace brick and carbon furnace liner, also known as refractory, at various locations within the facility. Some of the used brick and furnace liner were located in the slag pile at the facility, and some were agglomerated in a pile south of the leaking clarifier. Brick sizes vary from about the size of a cinder block to as large as a refrigerator. The pile of bricks and furnace liner south of the leaking clarifier is approximately

100' by 30' by 5'. In an effort to gauge the volatility of the used brick, an inspector threw a small stone at a brick. The brick caught fire and burned vigorously and persistently. The inspectors extinguished this fire with sand, for fear the entire pile of used brick and furnace liner, as well as the surrounding dry grass, might ignite. An inspector turned over a fragment of used brick/refractory. The mere act of overturning the fragment was sufficient to cause the fragment to immediately erupt into flames and burn so vigorously as to approach temperatures of 1,000 degrees Fahrenheit.

M. Respondents do not have a hazardous waste management permit to operate a treatment, storage or disposal facility.

N. As part of its closure activities, Respondents are moving slag from the slag pile to a manmade impoundment of water within the facility boundary that is roughly equivalent to 60 acres. This constant shifting of slag materials may result in a higher incidence of used brick and furnace liner exposure and ignition.

O. As part of its closure activities, Respondents have expressed an intent to the Montana Department of Environmental Quality to bury the leaking clarifier in place.

P. Respondents manage the phosphorous sludges in the 100' diameter leaking clarifier, and the used brick and furnace liner located south of the leaking clarifier and in the slag pile in a manner that presents an imminent and substantial endangerment to health or the environment, as follows:

1. Leaking Clarifier

- (a) The storage of extremely large quantities of ignitable and reactive phosphorous sludge in the 100' leaking clarifier constitutes an imminent hazard to surrounding populations. If the supply of water to the leaking tank is ever interrupted, for whatever reason, the "cap" of water used to maintain a barrier with the air will quickly disappear through the cracks in the leaking tank and through evaporative processes. The entire contents of the leaking tank, hundreds of thousands of gallons of phosphorous sludge, will then be subject to auto-ignition that will emit toxic gaseous compounds that could negatively impact wildlife and the health of populations in Ramsey, Rocker, Butte, and outlying areas. A fire in the leaking tank could also ignite a wildfire on adjoining land.
- (b) Even if the water cap on the leaking clarifier is maintained, phosphine gas is constantly exsolved. In the immediate vicinity of the leaking tank, concentrations of phosphine can reach toxic, possibly ignitable levels. Birds and wildlife are unable to differentiate the leaking tank from non-toxic, natural watercourses.

If animals stray into the vicinity of the leaking tank, they could succumb to phosphine poisoning.

- (c) The facility maintains no signs warning of the hazardous nature of the wastes on-site. There is but a single, eight foot, chain-link perimeter fence which is not routinely patrolled. There are only three employees at the site during regular business hours, and no staff after the close of business. Extremely hazardous areas within the perimeter fence are not segregated or distinguished in any way. Thus, a trespasser that climbed the perimeter fence would be in extreme danger from unmarked and unrestricted hazards on-site.

2. Used Brick and Furnace Liner

- (a) The used brick and furnace liner located in the pile south of the leaking clarifier and throughout the slag pile constitute an immediate hazard to surrounding populations. If even casually disturbed (from meteorological, human or animal activities), the refractory is subject to auto-ignition that will emit toxic gaseous compounds that could negatively impact the health of populations in Ramsey, Rocker, Butte, and outlying areas. A refractory fire could also ignite a wildfire on adjoining land.
- (b) The same lack of security, signage and segregation which cause the leaking clarifier to constitute an exposure risk make the brick pile and slag piles a risk to public health and the environment.

**V. CONCLUSIONS OF LAW**

A. Respondents are "persons" within the meaning of Section 1004(15) of the Act, 42 U.S.C. § 6903(15).

B. Wastes generated, managed, and stored at the Silver Bow facility are solid wastes as defined in Section 1004(27) of the Act, 42 U.S.C. § 6903(27).

C. Respondents have contributed and/or are contributing to the handling and storage of solid waste at the Silver Bow facility within the meaning of Section 7003 of the Act, 42 U.S.C. § 6973.

D. Respondents' contribution to and/or handling and storage of solid waste at the Silver Bow facility may present an imminent and substantial endangerment to health or the environment within the meaning of Section 7003 of the Act, 42 U.S.C. § 6973.

## VI. ORDER

Based on the foregoing Findings of Fact and Conclusions of Law and other information contained in the administrative record for this order, EPA has determined that the activities required by this Order are necessary to protect health or the environment. EPA, therefore, hereby orders Respondents to undertake and complete the following actions. All work undertaken pursuant to this Order shall be performed in a manner consistent with this Order, including all documents incorporated herein pursuant to this Order, and all applicable laws.

## VII. WORK TO BE PERFORMED

- A. Within 15 calendar days of the effective date of this Order, Respondents must:
- (1) Install a security fence around the leaking clarifier and the pile of used brick and furnace liner located south of the clarifier; and
  - (2) Post signs across the perimeter of the facility and upon the security fences referenced in (1), above, stating "Danger- Hazardous Waste-Unauthorized Personnel Keep Out," which must be legible from a distance of at least 25 feet from each sign. The signs shall be placed at the facility entrance and at a maximum spacing of 750 feet around the perimeter of the facility.
- B. Within 15 calendar days of the effective date of this Order, Respondents must assess interim measures necessary to protect public health and the environment, including wildlife, develop an interim measures work plan ("IM Work Plan"), and submit such IM Work Plan to EPA for approval.
- C. Interim measures shall include, but not be limited to:
- (1) A method for permanently and continuously eliminating wildlife contact with the solid wastes described above, including covering by netting, or other suitable devices;
  - (2) A method for ensuring the maintenance of the water "cap" over the sludge in the 100' leaking clarifier and measuring and capturing or preventing the release of phosphine gas; and
  - (3) A method of ensuring that operations in the slag pile will not create conditions that could cause used brick and furnace liner to spontaneously ignite.
- D. The IM Work Plan shall describe:
- (1) The selected interim measures;
  - (2) The procedures and a schedule required for implementation; and

(3) An operations and maintenance plan which, if followed, will result in uninterrupted effectiveness of the chosen measure(s).

E. EPA shall notify Respondents in writing of any comments it may have on the IM Work Plan which must be incorporated into the IM Work Plan before it can be approved.

F. Respondents must incorporate EPA's comments into the IM Work Plan and resubmit the IM Work Plan ("final submittal") to EPA within five-calendar days of receipt of EPA's comments.

G. If Respondents fail to timely incorporate EPA's comments and resubmit the IM Work Plan, EPA will either approve, approve with modifications, or disapprove of the IM Work Plan as submitted. If Respondents fail to submit an approvable IM Work Plan by the final submittal date, Respondents shall be in violation of this order.

H. EPA will notify Respondents in writing of its approval, approval with modifications, or disapproval of the IM Work Plan.

I. Within 15 calendar days of receipt of EPA's written approval or approval with modifications, Respondents shall implement the interim measure(s) in accordance with the procedures and schedules contained in the IM Work Plan as approved.

J. Within 15 calendar days of completion of the implementation of the IM Work Plan, Respondents shall provide a written report (Interim Measures Implementation Report) to EPA detailing and confirming the completion of the activities conducted pursuant to the IM Work Plan.

K. Within 30 calendar days of approval of the IM Work Plan, Respondents shall submit a written work plan that evaluates alternatives for the lawful removal and disposal of the contents of the leaking clarifier and used brick and furnace liner ("Removal Plan").

L. EPA shall notify Respondents in writing of any comments it has on the Removal Plan which must be incorporated in the Removal Plan before it can be approved.

M. Respondents must incorporate EPA's comments into the Removal Plan and resubmit it to EPA within 15 calendar days of receipt of EPA's comments ("final submittal").

N. If Respondents fail to timely incorporate EPA's comments and resubmit the Removal Plan, EPA will either approve, approve with modifications, or disapprove of the Removal Plan as submitted. If Respondents fail to submit an approvable Removal Plan by the final submittal date, Respondents shall be in violation of this order.

O. EPA will notify Respondents in writing of its approval, approval with

modifications, or disapproval of the Removal Plan.

P. Within 15 days of EPA's notification of approval or approval with modifications regarding the Removal Plan, Respondents shall begin implementation of the Removal Plan as approved by EPA in accordance with the procedures and schedules contained in the Removal Plan.

Q. Within 15 days of completion of the implementation of the Removal Plan, Respondents shall provide a written "Removal Implementation Report" to EPA detailing and confirming the completion of activities conducted pursuant to the Removal Plan.

R. The IM Work Plan and Removal Plan required under this Order must be submitted for EPA review and approval to:

John Wardell, Office Director  
U.S. EPA, Region 8, Montana Office  
301 S. Park Ave, DWR 10096-0026  
Helena, Montana 59626-0096

#### **VIII. ACCESS**

Respondents shall permit full site access to EPA employees, contractors, agents, consultants, designees, representatives, State of Montana and local government representatives, as may be necessary for the purposes of oversight and implementation of this Order.

#### **IX. AVAILABILITY AND RETENTION OF INFORMATION**

A. Respondents shall make available to EPA, and shall retain, during the pendency of this Order and for a period of five years after its termination, all records and documents in their possession, custody or control, or in the possession, custody or control of their contractors and subcontractors, which relate to the performance of this Order, including but not limited to documents reflecting the results of any sampling, tests, or other data or information generated or acquired by Respondents, or on Respondents' behalf, with respect to the implementation of this Order.

B. After the document retention period, Respondents shall notify EPA at least 90 calendar days prior to the destruction of any such documents, and upon request by EPA, shall deliver the documents to EPA.

#### **X. GENERAL PROVISIONS**

A. All plans and documents submitted under any paragraph of this Order shall, upon approval by EPA, be incorporated by reference in this Order as if set forth fully herein.



B. Within 10 days of the effective date of this Order, Respondents shall notify the EPA, in writing, of the name, title, and qualifications of the personnel to be used in carrying out the work required by this Order.

C. Respondents shall obtain any permits or approvals which are necessary to perform work on or outside the Silver Bow facility under applicable law and shall submit timely applications and requests for any such permits and approvals.

## XI. FAILURE TO COMPLY

Pursuant to Section 7003(b) and the Federal Civil Penalties Inflation Adjustment Act of 1990, as amended by the Debt Collection Improvement Act of 1996, 31 U.S.C. § 3701, and regulations codified at 40 C.F.R. § 19.4, any failure by Respondents to comply with this Order shall subject Respondents to civil penalties of not more than \$5,500.00 for each day of each failure to comply with this Order.

## XII. RESERVATION OF RIGHTS

A. Nothing in this Order shall limit the information gathering, access, and response authority of the United States under any other applicable law, nor shall it limit the authority of EPA to issue additional orders to Respondents as may be necessary.

B. This Order shall not be construed as a waiver or limitation of any rights, remedies, powers and/or authorities which EPA has under the Act, the Comprehensive Environmental Response, Compensation, and Liability Act, or any other applicable law.

C. EPA hereby reserves all of its statutory and regulatory powers, authorities, rights, remedies, both legal and equitable, which may pertain to Respondents' failure to comply with any applicable laws and regulations and with any of the requirements of this Order, including but not limited to, the right to disapprove of work performed by Respondents, to request that Respondents perform additional tasks, and the right to perform any portion of the work herein.

D. Compliance by Respondents with the terms of this Order shall not relieve Respondents of their obligation to comply with the Act and/or any other applicable State or Federal law or regulation including, without limitation, Montana Code Annotated Section 75-10-401, *et seq.* and associated Administrative Rules of Montana, and any condition of any permit issued under the Act or any other applicable law or regulation.

E. EPA reserves its right to seek reimbursement from Respondents of its costs to the fullest extent allowed by law.

## XIII. OPPORTUNITY TO CONFER AND MODIFICATION

A. Respondents have the opportunity to confer informally with EPA concerning the terms and applicability of this Order. If Respondents desire a conference, Respondents must contact EPA Region VIII to schedule and attend such a conference within fourteen (14) calendar days of receipt of this Order.

B. If EPA determines that any element of this Order, including work to be performed or schedules, warrants modification after a conference is held, EPA will modify the order in writing, file the modification with the Regional Hearing Clerk and issue a copy to Respondents.

C. Except as otherwise provided in this Order, no modification to this Order shall be effective unless and until it is issued in writing by EPA and filed with the Regional Hearing Clerk.

#### **XIV. NOTICE OF INTENT TO COMPLY**

A. Respondents shall provide, within 15 calendar days of the effective date of this Order, written notice to EPA stating whether Respondents will comply with the terms of the Order. The absence of a response by EPA to the notice required by this paragraph shall not be deemed to be acceptance of any assertions that Respondents may make in their notice(s), and shall not affect Respondents' obligation to implement the Order.

B. Failure of Respondents to provide notification to EPA of intent to comply within this time period shall be deemed a violation of this Order.

#### **XV. EFFECTIVE AND TERMINATION DATES**

A. This Order shall become effective on the fifteenth (15) calendar day after the date Respondents receive a copy of the executed order.

B. Modifications made by EPA to this Order are effective on the date such modification is filed with the Regional Hearing Clerk, so long as Respondents are sent a copy by certified mail or has hand delivered to it a copy of the modification as expeditiously as possible after the modification is filed with the Regional Hearing Clerk.

C. This Order shall terminate upon Respondents' receipt of written notice from EPA that Respondents have demonstrated, to the satisfaction of EPA, that the requirements of this Order, including any additional tasks determined by EPA to be required pursuant to this Order, but not including record retention, have been satisfactorily completed.

#### **XVI. SEVERABILITY**


If any provision or authority of this Order or the application of this Order to any party or circumstance is held by any judicial or administrative authority to be invalid, the application of


such provision to other parties or circumstances and the remainder of this Order as Modified shall not be affected thereby and shall remain in full force.

IT IS SO ORDERED:

ENVIRONMENTAL PROTECTION AGENCY  
REGION VIII

Date: 6/2/00

By:   
John F. Wardell, Director  
Montana Office  
EPA Region VIII

By:   
Michael T. Risner  
Legal Enforcement Program  
EPA Region VIII

IN THE MATTER OF: Rhodia Inc. and Rhône-Poulenc  
Proceeding Under § 7003 of the Solid Waste  
Disposal Act, as amended, 42 U.S.C. § 6973

CERTIFICATE OF SERVICE

I hereby certify that the foregoing **Administrative Order** was sent to the following persons in the manner indicated, this **2nd day of June, 2000**.

ORIGINAL FILED BY HAND DELIVERY TO:

Ms. Tina Artemis  
Regional Hearing Clerk  
U.S. Environmental Protection Agency, Region VIII  
999 18th Street, Suite 500  
Denver, CO 80202-2466

COPY BY CERTIFIED MAIL, RETURN RECEIPT REQUESTED TO:

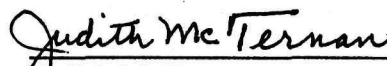
CT Corporation System  
40 West Lawrence, Suite A  
P.O. Box 1166  
Helena, MT 59624

and

Dan Bersanti, Plant Manager  
Rhodia Inc.  
P.O. Box 3146  
Butte, MT 59701  
Facsimile No. 406-723-4773

COPY BY FACSIMILE TO:

Jeffrey S. Lang, Esq.  
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CN 7500  
Cranbury, NJ 08512  
Facsimile No. 732-821-2787

  
Judith McTernan

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