

2-Way Memo

TSC-14-1-(81)-33

May 22 '81

INSTRUCTIONS	
Use routing symbols whenever possible.	
SENDER (Originator of message): Use brief, informal language. Conserve space. Forward original and one copy.	
RECEIVER (Replier to message): Reply below the message, keep one copy, return one copy.	

Subject: RCRA Investigation of Kerr-McGee Chemical Company, Henderson, Nevada as ISS Notifier.

From: Kathleen Shimmin, Chief
Water Branch
Enforcement Division

Fred Hoffman
Hazardous Materials Branch
Air & Hazardous Matls. Division

DATE OF MESSAGE	ROUTING SYMBOL
July 10, 1981	E-5

SIGNATURE OF ORIGINATOR

TITLE OF ORIGINATOR	Chief, Air & Haz. Matls. Branch S & A Div.
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FOLD INITIAL MESSAGE

Attached is a RCRA Facility Investigation Report for Kerr-McGee Chemical Company, Henderson, Nevada plant.

No RCRA violations were observed during this investigation.

There are three attachments to this report, which include:

1. EPA Notification of Hazardous Waste Activity Form.
2. EPA Hazardous Waste Permit, Part A.
3. NPDES Compliance Monitoring Report on Kerr-McGee Chem. Co., Henderson, Nevada.

REPLY MESSAGE

DATE OF REPLY	ROUTING SYMBOL
	S-2

SIGNATURE OF REPLIER

TITLE OF REPLIER

To: R. Michael Stenburg, Chief
Air & Hazardous Materials Branch

-8 JUL 1981

C. B. Armstrong
Kerr-McGee Chemical Company
Lake Mead Drive
Henderson NV 89015

Dear Mr. Armstrong:

A hazardous waste investigation was made at Kerr-McGee Chemical Company on May 22, 1981. During the course of this investigation information was gathered by EPA in accordance with Section 3007 of the Resource Conservation and Recovery Act. A copy of the investigation report is enclosed for your information.

The deficiencies or violations that may be noted in the report are not necessarily inclusive and any omission to cite other violations or deficiencies is not intended to nor shall be binding upon the Agency.

Comments may be provided by you concerning any aspect of the report. In your response please refer to report number TSC 14-1(81)33.

EPA routinely provides copies of investigation reports to State agencies. Such releases will be handled according to the basic rules governing business confidentiality claims contained in the Code of Federal Regulations (49 CFR Part 2). Any claim of confidentiality should be made within fifteen (15) working days from the receipt of this letter. EPA will construe a failure to furnish timely comments as a waiver of the confidentiality claim.

If you have questions concerning this report, please contact Robert Mandel, Chief, Hazardous Materials Section at (415)556-8752.

Sincerely yours,

R. Michael Stenburg, Chief
Air and Hazardous Materials Branch
Surveillance and Analysis Division

Enclosures

bc: R-5-3
A-3-3
✓S-2-2, Marcus

EPA REGION IX

FACILITY INVESTIGATION REPORT

Company Name: Kerr-McGee Chemical Corp.

Street Address: East Lake Mead Drive

City/State/Zip: Henderson, Nevada 89015

Phone Number: 702 565-8901 ()

Mailing Address (if different from above):
Same

Facility Representative(s) & Titles:

1. C. B. Armstrong, Plant Manager
2. Steve Pie, Hazardous Waste Mgr.
3. Richard Wohlsch, Superintendent of Plant Technical Services
Terry Bentley, Sr. Staff Services / Env. Chemist.

EPA Investigator(s):

1. Randy Marcus (RCRA)
2. Gary Lavagnino (air)

Other Participants/Agencies:

1. Nevada Div. of Envir. Protection (Frank Steinberg)
2. _____
3. _____

Date(s) of Investigation: May 22, 1981, 9AM.

Purpose of Investigation: RCRA-C ISS investigation of hazardous waste mgmt (R. Marcus) and air pollution inspection (G. Lavagnino)

Type of Business: Manufacturing of inorganic chemicals. About 220 employees.

Process Description: Mfg. of industrial chemicals, incl. sodium chlorate, ammonium perchlorate, potassium perchlorate, manganese dioxide, boron trichloride, boron trihydride, elemental boron.
For description of industrial processes see NPDES Compliance Monitoring Report by Ken Greenberg, June 1990.

- Process By-Products:
1. $NaClO_2$ process: filter cake - $CaSO_4$, $CaCO_3$, graphite, earth ^{distillaceous}
 2. Perchlorate " : filter cake: " " " ^{chromic hydroxide,}
 3. MnO_2 process: ^{Wastewater, Sodium phosphate solution,} Solid waste with silica, alumina, iron, heavy metals
 4. Boron chemicals: leachate stream containing magnesium sulfate and wet scrubber stream, discharged to waste pond.

Comments: Kerr-McGee NPDES permit requires that wastewater ponds to be constructed so that they contain 2' with stand with no discharge the once in 100 yr. Flood, and prevent escape of wastewater by leakage. Permit also requires Co. to submit to EPA a summary of monitoring results for seepage & leakage.

Wastewater ponds - 8 ponds - 2 access ponds - ^{with hex chro} water recycled for $NaClO_2$; One pond phosphate soln, cooling tower, & steam waste; 2 ponds - $Cr(OH)_3$ sludge; 1 cooling tower emergency pond; 1 land-boron waste & hexav. chrome - listed
5 ponds listed.

See NPDES Compliance Monitoring Report on Kerr-McGee, for Table of the company's wastewater ponds

Listed Ponds: all have liners - single-lined.

3 types - PVC bottom, ^{about 30 ft} cell. polyeth side walls
"all" butyl rubber & nylon mesh side walls
"all" butyl rubber & nylon reinforced - at least 30

Monitor for leakage - methods submitted to EPA 5 years ago.

Monitoring leakage by inventorying the level of water & inflow rates.

Water levels plotted on large graph.

Ponds compared with each other and agst. Lake Mead evaporation records.

K-M. Hydrology Dept. is studying feasibility of monitoring wells, at Henderson, NV. plant

K.M. - Wells not needed at landfill (K-M).

GENERATOR PRE-TRANSPORT COMPLIANCE CHECKLIST

*No wastes shipped off site, set in
in a year or two, may ship chlorinated solvents off site
- TSD facility.*

(262.34) Is waste stored on-site for more than 90 days? YES NO

*** If "yes", then a generator who accumulates hazardous waste over 90 days is a TSD Facility subject to 40 CFR Part 265.

*** If "no", continue with the following part: *No completed manifests
only blank forms.*

Is waste packaged according to D.O.T. Hazardous Materials Table Column 5(b)? YES NO
See 49 CFR 172.101.
Comment: _____

Are containers inspected at least weekly for leaks and corrosion? (265.174) YES NO
Comment: In shop area.

Inspected by shop workers

Are containers holding ignitable or reactive waste located at least 50 feet from property line? (265.176) YES NO
Comment: less than one drum.

Not ignitable -

Not Applicable.

* Future shipments of solvents - F001, F003, F005

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*** If tanks are used to store hazardous waste, complete part 265 Subpart J check is excluding part 265.193 requirements for waste analysis and trial tests.

Neutralization tanks
not haz. waste,
since it's a byproduct
of hexamls
chrome
YES NO

(265.34)

2 tanks for chrome plant mud - with
Are accumulation dates clearly marked and visible for inspection?

Comment: N.A.

Is each container labeled according to D.O.T. Hazardous Materials Table Column 4? See 49 CFR 172.101.

YES NO

Comment: N.A.

Is each container marked according to D.O.T. Hazardous Materials Table? See 49 CFR 172.101.

YES NO

Proper Shipping Name? (Hazardous Materials Table Column 2)

YES NO

Proper Identification Number? (Hazardous Materials Table Column 3A)

YES NO

Is each container of ORM-A, B, C, D, or E waste labeled with its ORM designation?

YES NO
or N/A

Comment: N.A.

*** Complete Subpart C Checklist
Complete Subpart D Checklist

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SUBPART B - GENERAL FACILITY STANDARDS CHECKLIST

(265.11) EPA Identification Number: NV D 008290330

(265.13) Waste Analysis Plan

Is Waste Analysis Plan on site?

YES

NO

Comment: Need written request for Waste Analysis & other plans

Date of Plan: Sept. 15, 1980.

Does the Plan contain:

- Parameters of analysis of each waste handled?
- Rationale for the selection of each parameter?
- Test methods for each parameter?
- Sampling methods for each waste?
- Frequency which each analysis will be reviewed or repeated?

YES

NO

YES

NO

YES

NO

YES

NO

YES

NO

Comments on Waste Analysis Plan: _____

Appears to meet RCRA requirements.

Also a Pond Leakage Monitoring Plan - prevents percolation of waste streams thru soil by using impervious plastic membranes as liners for ponds

(265.14) SECURITY

Describe the active portions of the facility:

Several large bldgs. on facility, with
2 evap ponds. Fences around property

Could persons or animals entering these areas be injured by contact with waste, structures, or equipment?

YES

NO

Comment: Very unlikely.
Nearly neutral pH, 6-9.

Could disturbance of the waste or equipment by persons or animals entering these areas cause a violation of any TSD facility requirements?

YES

NO

Comment: _____

*** If "no" to both of the above questions, do no complete the following security compliance items:

Is there a 24 hour surveillance system to monitor and control entry to the active portion of the facility?

YES

NO

Workers at facility 24hrs/day
OR
Controlled access all the time.

Is there a barrier completely surrounding the active portions of the facility and a means to control entry to this area?

YES

NO

Comment: Entire plant enclosed by 6 ft.
eyelone fence. Access to plant
via controlled gate.

Process ponds - chlorate ponds enclosed by
chain link fence

Is there a sign with the legend "Danger - Unauthorized Personnel Keep Out" posted at each entrance to the active portions of the facility?

YES NO

OR

Is there a sign which indicates authorized entry only and that entry can be dangerous?
Comment: _____

YES NO

Sign at Main Gate -
"No trespassing" & other signs.

(265.15) GENERAL INSPECTION REQUIREMENTS

What types of problems are expected from deterioration or malfunction of safety, security, and operating equipment?

Comment: Inspection section of Hazardous Waste Disposal Plan states that mgm or his agent will determine if malfunctions, operating errors, or other deteriorations which could release haz. matls. to environment.

Items: ponds, trinit tanks, pipelines to ponds, landfill.

Is there an inspection schedule at the facility?

YES

NO

Comment: Ponds' levels inspec. daily,

liner & dike condition weekly. Trinit tanks daily - fresh
Pipelines to pond - w/ly. Landfill - biw/ly (cover); qtrly -

Does the schedule indicate each piece of equipment discussed above?

YES

NO

Comment: _____

Does the schedule indicate the frequency of inspection for each piece of equipment?

YES

NO

Comment: Daily, w/ly, biw/ly, or
quarterly.

Does the schedule include daily inspections of loading and unloading areas?

YES

NO

Comment: Pond level insp. daily.

Does the facility maintain an inspection log? YES NO

Comment: ^{Sheet} One for landfill; one for ponds,
another for neutral tanks

Does the inspection log include:

- date and time of inspection - date, not time. YES NO
- name of inspector - initials YES NO
- observations recorded YES NO
- date and nature of repairs YES NO

Comment: _____

(265.17) General Requirements for ignitable, reactive, or incompatible wastes.

What precautions are taken to prevent ignition or reaction of ignitable or reactive waste?

Comment: K-M does not have
these types of wastes

Are "No Smoking" signs posted in these areas? YES NO

N.A.

SUBPART C - PREPAREDNESS AND PREVENTION CHECKLIST

- (265.32) Is the facility equipped with the following equipment?
- Internal alarm system? - five alarms YES NO N/A
 - Portable fire extinguishers? - not suitable waste YES NO N/A
 - Spill control equipment? - Spill would be contained YES NO N/A
 - Decontamination equipment? In plan Showers eyewashers YES NO N/A
 - Water at volume to supply hoses, sprinklers, or water spray system? - Not applic. YES NO N/A

Comment: Tank is in bldg; spill would be contained in bldg & pumped back to tank, after repair of tank.

- (265.33) Is the above equipment tested and maintained for proper operation? YES NO N/A

Comment: _____

- (265.34) Do employees handling hazardous waste have direct access to internal alarm or communication system? - phones YES NO N/A
- Is there ever just one employee on premises during operations? YES NO N/A
- If "yes" does employee have access to external communication? YES NO N/A

Comment: _____

Company Name

Kerr McGee

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(265.35) Is there adequate aisle space for the movement of all equipment?

YES NO N/A

Comment: _____

(265.37) Have arrangements been made with the local authorities?

YES NO

chem. wastes are basically non-hazardous.

With Police?
Police Dep't: _____

YES NO

With Fire Department?
Fire Dep't: _____

YES NO

EMI Fire Dept.

Emergency Response Teams?
Response Team: _____

YES NO

Not Applicable

Local Hospitals?
Hospital: _____

YES NO

Pres. De Lima Hospital

Other authorities?
List: _____

YES NO

Have local authorities refused to make arrangements?

YES NO

If "yes", is the refusal documented in operating record?

YES NO

Comment: _____

SUBPART D - CONTINGENCY PLANNING CHECKLIST

(265.51) Is there a contingency plan; SPCC, or other emergency plan amended to include hazardous materials management provisions at the facility?

YES

NO

Date of plan: Updated in 1987. Orig plan written about 10 yrs ago.

Comment: called K-M, Henderson
Disaster Control Plan

(265.52) Does the plan describe actions to respond to:

Fires?

YES

NO

Explosions?

YES

NO

Release of Hazardous Waste?

YES

NO

Does the plan describe all the arrangements made under Subpart C (265.37)?

YES

NO

Comment: _____

Does the plan list names addresses, and phone numbers of emergency coordinators?

YES

NO

Comment: Names & phone numbers

Does the plan list all the equipment under Subpart C (265.32)?

YES

NO

Comment: Not applicable - fire
fighting eqpt. not applicable because
wastes not ignitable.

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Does the plan describe the location and capabilities of all the equipment?

YES

NO

Comment:

Not applicable.

Are evacuation procedures described in plan?

YES

NO

Comment:

Not applicable.

evacuation would never be needed.

Has the plan been submitted to each of the authorities listed under Subpart C (265.37)?

YES

NO

Comment:

Each appropriate authority.

No manifests or shipments yet.

(265.73) Is a written operating record at the facility? YES NO

Does the record contain:

- Description of each waste received? YES NO
- Quantity of each waste received? YES NO
- Method of TSD for each waste? YES NO
- Date of TSD for each waste? YES NO
- Location of each waste within facility? YES NO
- Quantity of each waste at each location? YES NO
- Cross-reference to specific manifest document numbers? YES NO

Comment: _____

*** FOR OFF-SITE FACILITIES, COMPLETE THIS PART:

(265.71) Has the facility maintained all manifests? YES NO

Comment: _____

Has the facility signed the manifests? YES NO

Comment: _____

Kerr-McGee Chem. Co.

SPECTED

Do continuous feed systems have a waste-feed cutoff?					
Are waste analyses done before the tanks are used to store a substantially different waste than before?	}	Not Applicable			
Are required daily and weekly inspections done? <small>ASK ABOUT ALL FIVE INSPECTIONS REQUIRED</small>					
Are reactive & ignitable wastes in tanks protected or rendered non-reactive or non-ignitable? (If waste is rendered non-reactive or non-ignitable, see treatment requirements.)					
Are incompatible wastes stored in separate tanks? (If not, the provisions of 40 CFR 265.17(b) apply.)					

Facilities which store hazardous waste in surface impoundments (Subpart K) *yes*

Do surface impoundments have at least 60 cm (2 feet) of freeboard?	✓			
Do earthen dikes have protective cover?	✓			
Are waste analyses ^{AND TREATMENT TESTS} done when the impoundment is used to store _{ON TREAT} a substantially different waste than before?	✓			
Is the freeboard level inspected at least daily?	✓			
Are the dikes inspected weekly for evidence of leaks or deterioration?	✓			
Are reactive & ignitable wastes rendered non-reactive or non-ignitable before storage in a surface impoundment? (If waste is rendered non-reactive or non-ignitable, see treatment requirements.)			✓ Not Applicable	
Are incompatible wastes stored in different impoundments? (If not, the provisions of 40 CFR 265.17(b) apply.)	✓			

Facilities which store hazardous waste in waste piles (Subpart L) *Not applicable*

1. Are waste piles covered or protected from the wind?				
2. Is each in-coming movement of waste analyzed before being added to the waste pile?				
3. Are leachate, run-off, and run-on controlled? (The effective date of this provision is Nov. 19, 1980.)				
4. Are reactive & ignitable wastes rendered non-reactive or non-ignitable before storage in a pile? (If waste is rendered non-reactive or non-ignitable, see treatment requirements.)				

Kerr-McGee Chemical Company
RCRA Investigation

Training - listed in training file (K-M).
Lists objectives, RCRA personnel & duties.
Trng. session in Jan. 1981.
Trng. of each appropriate employee listed
in this file.

Closure & Post-Closure Plan -

Available at K.M. plant
Discusses closure of landfill,
surface impoundments (spec. products
& NH_4ClO_4 & $NaClO_3$), tanks.
Post-closure procedures included.
Also final closure " " "
Final closure is not foreseen for the
next 30 years. In next 30 yrs,
waste disposal will require construction
of 15 more landfill cells & about
5 impoundments. Deed of property
will be amended to notify potential
purchaser that land used to manage
hazardous wastes. Final closure will
be assumed by certiff./regis. engineer.

Closure Costs & post-closure costs