

SURVEY OF AVAILABLE INFORMATION ON
HAZARDOUS WASTE MANAGEMENT
IN WYOMING

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SUMMARY

The goals of this project were to compile available information on hazardous waste management in Wyoming and identify critical data needs which should be met for the State to assess the adequacy of current hazardous waste statutes and regulations.

Of the 898 facilities in Wyoming identified in this project as potential or known handlers of hazardous wastes, 44% have been contacted by the United States Environmental Protection Agency and given a regulated (13%) or non-regulated (31%) status under the federal Resource Conservation and Recovery Act of 1976 (RCRA). Data are available on specific types, amounts and dispositions of wastes handled by some of these facilities. But often the quality of these data is poor. Very little is known about the types, amounts and dispositions of wastes handled by the remaining 56% of the facilities reviewed in this project.

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INTRODUCTION

Background

The Executive and Legislative branches of Wyoming State government have been considering the current and future status of the regulation of production, storage, treatment and disposal of hazardous waste materials. State and federal laws already exist for certain types of materials, such as mine spoils, sewage discharges, etc. The most comprehensive of the federal laws governing hazardous wastes is the Resource Conservation and Recovery Act of 1976 (RCRA). However, many business facilities potentially or actually managing hazardous wastes may not be currently regulated under RCRA because the wastes they handle are exempt due to actions of Congress or administrative actions of the United States Environmental Protection Agency (USEPA). Examples of RCRA exemptions include: 1) wastes that are produced in amounts of less than 1000 kilograms per month, 2) wastes that are recycled, or 3) wastes that are temporarily exempt pending further studies by the USEPA.

Since there is concern whether additional legislation and regulation are needed to manage hazardous wastes in Wyoming, and since the U. S. Congress is considering legislation which could affect the types and amounts of wastes that are regulated, a comprehensive hazardous waste information base is essential if Wyoming is to evaluate its management needs and remain abreast of federal changes. Although information on hazardous waste production and disposal is available from both the USEPA and the Wyoming State Department of Environmental Quality (DEQ) Solid Waste Management Program, this information is

generally incomplete. To date, there has been no comprehensive compilation of the available information on sources, types and quantities of potentially hazardous wastes in Wyoming. This report presents a summary of a project conducted in response to a Legislative request to determine the extent of the current knowledge concerning hazardous waste management in Wyoming and whether this knowledge is adequate to assess management needs.

Project Goal

The overall goal of this project was to assist the Wyoming DEQ Solid Waste Management Program in collecting, compiling and analyzing available technical information on hazardous wastes in Wyoming. The study had two specific objectives;

- o Compile and evaluate existing information on hazardous wastes in Wyoming from direct sources such as DEQ, USEPA, and other state or federal sources.
- o Identify critical data and information needs which should be met for the State to adequately assess the need for hazardous waste statutes and regulations.

METHODS

We compiled hazardous waste information primarily from files within the Wyoming DEQ Solid Waste Management Program and from within the USEPA Region 8 Waste Management Branch. Collected and compiled sources included correspondence regarding hazardous waste, RCRA inspection reports and permit applications, and Annual Hazardous Waste Reports (Table 1). These sources provided information on companies which have been contacted by state or federal agencies with regard to hazardous waste management.

We consulted often with staff members of the Wyoming DEQ Solid Waste Management Program to discuss the types of information sources available. Additional sources used to identify potential hazardous waste handlers that have not been contacted by state or federal officials with regard to hazardous waste management included the Wyoming Directory of Manufacturing and Mining, published by the Wyoming Department of Economic Planning and Development, and Wyoming DEQ Water Quality Division Construction Permit and Surface Impoundment logs.

Information from the sources listed in Table 1 was reviewed and organized. A filing system was designed to be used with a minicomputer data management program which allows for a number of different combinations of data to be retrieved and summarized. All of the data compiled for this project as well as the data management system have been submitted to the Wyoming DEQ Solid Waste Management Program for their exclusive use. Some of the data were also summarized in this report primarily to illustrate the kinds of information known or not known about hazardous waste management in Wyoming.

Table 1. Data sources searched for facilities which potentially produce, transport or store hazardous wastes.

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1. Wyoming DEQ Solid Waste Management Division files, which included correspondence, RCRA permit applications and inspection reports, Notification of Hazardous Waste Activity Reports, and Annual Hazardous Waste Reports.
 2. USEPA Region 8 Waste Management Branch files. Including correspondence, RCRA permit applications. Annual Hazardous Waste Reports and the following computer printouts:
 - Hazardous Waste Notification Figures 6-4-81, 11-17-82, and 9-15-83 (most recent release);
 - Superfund Notifiers List 10-9-81;
 - PCB Inspections and Complaints List;
 - Inspection Report Summary, 11-82;
 - Hazardous Waste TSD Facilities 11-3-83; Enforcement Report 1-4-83.
 3. Wyoming Directory of Manufacturing and Mining 1981-82, published by the Wyoming Department of Economic Planning and Development.
 4. Wyoming DEQ Water Quality Division, Construction Permit Logs 1979 through 1983.
 5. USEPA-Wyoming DEQ Surface Impoundment Assessment Log, December 1979
 6. 1980 Report entitled "Survey and Analysis of Hazardous Waste Generation and Management In Wyoming" prepared for Wyoming DEQ by the consulting firm of Engineering-Science.
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RESULTS AND DISCUSSION

The most comprehensive of the current federal laws regulating hazardous waste production, transport and storage is the Resource Conservation and Recovery Act of 1976 (RCRA). Most of the major potential handlers of hazardous wastes in the state have been contacted by the USEPA in implementing RCRA, and the information on specific waste types that is currently available comes from RCRA inspection reports or RCRA permit applications. Permit applications include figures provided by the company on estimated amounts of each waste type handled.

Of the 898 Wyoming facilities identified in this project as potential handlers of hazardous wastes, 120 have officially notified the USEPA that they handle hazardous wastes as defined by RCRA ("Notifier" in Table 2). However, there are many facilities (270) that handle hazardous wastes but which are exempt from regulation under RCRA. Included in the "Exempt" classification in Table 2 are five classes of facilities. These are: 1) small quantity generators, which produce hazardous wastes in amounts of less than 1000 kilograms per month, 2) facilities whose hazardous wastes are recycled, 3) facilities which handle wastes that are not legally defined as hazardous under RCRA (such as waste crankcase oil), 4) facilities which produce wastes which may be hazardous but are exempted by actions of Congress or the USEPA (such as fly ash waste from coal combustion), and 5) facilities which have ceased to operate. Finally, there are 508 facilities listed in Table 2 that are potential handlers of hazardous wastes but which have not been contacted by state or federal officials,

Table 2. The number of facilities that potentially manage or are known to manage hazardous wastes and their RCRA status in each county in Wyoming.

County	County total	RCRA classification		RCRA status unknown ^c
		Notifier ^a	Exempt ^b	
Albany	26	5	10	11
Big Horn	16	2	9	5
Campbell	82	18	17	47
Carbon	34	6	14	14
Converse	41	8	20	13
Crook	5	0	1	4
Fremont	66	4	34	28
Goshen	9	4	2	3
Hot Springs	12	0	2	10
Johnson	10	0	5	5
Laramie	40	9	14	17
Lincoln	20	7	5	8
Natrona	263	25	53	185
Niobrara	8	0	5	3
Park	25	2	6	17
Platte	7	0	4	3
Sheridan	26	4	11	11
Sublette	9	2	1	6
Sweetwater	115	8	35	72
Teton	3	0	0	3
Uinta	24	5	7	12
Washakie	24	6	6	12
Weston	25	4	5	16
Unknown ^d	8	1	4	3
Total	898	120	270	508

^aA "Notifier" is a facility that has notified the USEPA that they handle wastes that are classified as hazardous under RCRA, and the facility handles wastes in sufficient quantities to be regulated by the USEPA under RCRA

^b"Exempt" facilities include small quantity generators, recyclers, etc. (see text, p. 5).

^cFacilities listed in this category have not been contacted by state or federal officials, hence their status under RCRA is unknown

^dFacilities for which a county location could not be obtained.

so their status under RCRA is unknown. Combining the 270 non-regulated facilities (RCRA-exempt) with the 508 facilities with an unknown status, there are at least 778 facilities throughout Wyoming which are potential or known handlers of hazardous wastes but are not regulated by the USEPA.

Natrona County was found to have the largest number of facilities handling or potentially handling hazardous wastes in Wyoming (Table 2). Three counties, Natrona, Campbell and Sweetwater, together contain 460 facilities or over 51% of the total number of facilities identified in this project. Of these 460 facilities, 66% have an unknown RCRA status (Table 2). This reflects the pattern throughout the rest of Wyoming, where 56% of the 898 facilities have an unknown RCRA status. Only 13% of the total number of facilities are USEPA notifiers and 31% of the 898 have been contacted and given a non-regulated, exempt status.

Standard Industrial Classification (SIC) codes are known for 55% of the facilities identified in the project (Table 3). Sufficient information was not available to us in this study to assign SIC codes for the remaining 45% of the facilities. The majority of the facilities for which we have a SIC code are associated with petroleum drilling, refining and related industries and have an unknown status under RCRA.

Because so few of the potential hazardous waste-handling facilities in Wyoming have been closely investigated, there are numerous gaps in the available information on types, amounts and dispositions of wastes handled. In fact, specific waste types are known for only 34% of the total number of facilities we reviewed. Estimated amounts and dispositions of wastes are known for only 10% and actual amounts

Table 3. A summary of the RCRA status for business groups classified by Standard Industrial Classification (SIC) code.

SIC Classification Category number	Category label	RCRA classification		RCRA status unknown ^c
		Notifiers ^a	Exempt ^b	
10	Metal mining	2	8	12
12	Bituminous coal and lignite mining	2	3	16
13	Crude petroleum and natural gas	17	20	359
14	Mining of non- metallic minerals except fuels	0	8	10
24	Lumber and wood products	1	3	4
27	Printing, publish- ing and allied industries	0	0	32
28	Chemicals and allied products	4	3	8
29	Petroleum refining and related indus- tries	11	4	9
Miscellaneous		11	19	4
SIC Classification unknown		72	203	56

^aA "Notifier" is a facility that has notified the USEPA that they handle wastes that are classified as hazardous under RCRA, and the facility handles wastes in sufficient quantities to be regulated by the USEPA under RCRA

^b"Exempt" facilities include small quantity generators, recyclers, etc. (see text, p. 5).

^cFacilities listed in this category have not been contacted by state or federal officials, hence their status under RCRA is unknown

and dispositions are known for less than 2% of the facilities we inventoried in the state.

The quality of the information that is available is often poor. For example, comparisons of actual versus estimated amounts for the limited number of facilities for which this information is available indicated that the estimates can vary widely from the actual amounts of hazardous wastes produced. In fact, estimated hazardous waste quantities were found to vary from 95% less than the actual amount to as much as 400% more than the actual amount handled. Much of the information about the disposition of hazardous wastes is also insufficient, even for facilities that have been contacted by federal officials. For example, facilities classified as "exempt" under RCRA because their wastes are recycled are not required by the USEPA to provide information as to what actually happens to the wastes.

Although 898 facilities which potentially or actually handle hazardous wastes have been reviewed for this project, the list is not complete. Major waste handlers have been included but there are no doubt other minor facilities that are not listed. It is likely that most of the facilities not included in the inventory, such as dry cleaning establishments, hospitals, or gas stations, do not handle large quantities of hazardous wastes. Nonetheless, because the types and disposition of these small waste quantities are largely unknown, transport, storage or disposal of these wastes could still pose environmental problems.

CONCLUSION

Information from the USEPA and the Wyoming DEQ on hazardous waste handling in Wyoming and from the Wyoming Department of Economic Planning and Development on business types in Wyoming, has been organized, compiled and analyzed. Some data on specific waste types, amounts and the fate of these wastes are available for hazardous waste facilities that are regulated by the USEPA under RCRA. However, these data are often incomplete, particularly concerning actual amounts and fates of these wastes.

Most of the potential hazardous waste handlers in the state are not currently regulated under RCRA. Our inventory indicates there are at least 778 unregulated facilities throughout Wyoming which are potential or known handlers of hazardous wastes. Very little is known about the types, amounts and fate of wastes handled by these facilities. The USEPA has not conducted inspections of facilities which are suspected of handling hazardous wastes but have not notified the USEPA as required by RCRA, nor are they rigorous in following up on facilities which have been contacted but whose data are incomplete. Obtaining information on these unregulated facilities, and filling in the gaps in the data for those facilities that are regulated, are critical to the assessment of the need for further regulation of hazardous waste management in Wyoming.