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**Wisconsin State Briefing Book
for
Low-Level Radioactive
Waste Management**

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**WISCONSIN STATE BRIEFING BOOK
FOR
LOW-LEVEL RADIOACTIVE WASTE MANAGEMENT**

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1. INTRODUCTION

This Wisconsin State Briefing Book for Low-Level Radioactive Waste Management has been prepared to assist in the orderly planning and implementation of providing adequate safe low-level radioactive waste disposal facilities. The Wisconsin State Briefing Book is one of a series of briefing books being prepared that will provide background information of waste management practices in all states.

Of six commercial low-level radioactive waste disposal sites that have operated within the United States (see Table 1-1), only three are currently accepting additional wastes. Of these three, two sites have been closed intermittently because of various irregularities in disposal and shipping operations.⁽¹⁾ Table 1-2 presents the total waste volumes that have been disposed of at commercial sites during the period 1962 through 1979. In 1979, approximately 80 percent of the wastes were shipped to the South Carolina site.

Projections of total national low-level radioactive waste generation and capacity of existing commercial disposal facilities indicate that if no change in present practices or trends occur, the current disposal sites could be filled by the mid-1990s. However, recent proposed limitations of yearly burial quantities to be accepted by disposal sites located in South Carolina and Washington State will reduce the availability of burial space. South Carolina's limit on waste receipts will be reduced to 100,000 cubic feet per month by October 1981 and Governor Dixy Lee Ray of Washington has announced her intention to restrict use of the Richland site after 1982. Therefore, it is possible that by the mid-1980s there would be more waste volume generated per year than could be buried.⁽¹⁾

Section 2 of this Briefing Book presents an overview of past and present low-level radioactive waste management practices within the State of Wisconsin. Section 3 identifies those demographic and economic factors and trends that affect or can be related to the quantity and nature of low-level radioactive wastes within the State

TABLE 1-1
COMMERCIAL SHALLOW LAND BURIAL SITES⁽¹⁾

<u>Location</u>	<u>Year first licensed</u>	<u>Site operator</u>	<u>Licensing authority</u>	<u>Year closed</u>
Maxey Flats, Ky.	1962	Nuclear Engineering Company	State	1977
Beatty, Nev.	1962	Nuclear Engineering Company	State	Open
Sheffield, Ill.	1967	Nuclear Engineering Company	NRC	1978
Richland, Wash.	1965	Nuclear Engineering Company	State and NRC	Open
Barnwell, S.C.	1971	Chem-Nuclear Systems, Inc.	State and NRC	Open
West Valley, N.Y.	1963	Nuclear Fuel Services	State and NRC	1975

TABLE 1-2

TOTAL U.S. WASTE VOLUMES BURIED AT COMMERCIAL
BURIAL SITES (CUBIC METERS) (1)

<u>Year</u>	<u>Burial Site</u>						<u>National annual total</u>
	<u>Kentucky</u>	<u>Nevada</u>	<u>South Carolina</u>	<u>Illinois</u>	<u>New York</u>	<u>Washington</u>	
1962	-	1,861	-	-	-	-	1,861
1963	2,206	3,512	-	-	522	-	6,240
1964	3,872	2,836	-	-	6,388	-	13,096
1965	5,751	1,988	-	-	4,717	668	13,124
1966	5,556	3,533	-	-	4,697	2,402	16,188
1967	7,820	3,206	-	2,527	4,946	870	19,369
1968	8,177	3,576	-	2,713	4,505	669	19,640
1969	10,353	4,282	-	2,012	4,274	438	21,359
1970	12,520	4,131	-	2,825	5,096	423	24,995
1971	13,171	3,584	1,171	4,430	6,362	584	29,302
1972	15,577	4,301	3,757	5,956	7,054	654	37,299
1973	10,072	4,076	15,839	8,524	7,497	1,033	47,041
1974	8,897	4,103	18,244	12,373	8,574	1,411	53,602
1975	17,109	4,943	18,072	14,116	1,889*	1,500	57,629
1976	13,783	3,864	40,227	13,480	*	2,867	74,221
1977	423**	4,742	46,563	17,643	*	2,718	72,089
1978	**	8,827	61,566	102***	*	7,422	77,917
1979 (2)	**	6,491	63,433	***	*	9,980	79,914
Total	135,287	73,856	268,882	86,701	66,521	33,639	664,886

*Receipt and burial of wastes were suspended by Nuclear Fuel Services on 3/11/75.

**Receipt and burial of wastes were suspended on 12/27/77.

***Receipt and burial of wastes were suspended on 4/8/78.

of Wisconsin. Section 4 presents an overview of Wisconsin's state government and identifies the government institutions and agencies with statutory or other responsibilities affecting the generation, handling, and disposal of radioactive wastes within the state. The identities and attitudes of state officials and other organizations impinging on this issue are presented in the text and, where possible, in available representative print media. Section 5 presents the methodology employed for conducting a direct mail survey of radioactive material licensees within the state to obtain basic information on disposal practices. The results of this survey are presented in Section 6 for that information dealing with wastes shipped to commercial disposal facilities.

REFERENCE

1. William F. Holcomb, Inventory (1962-1978) and Projections (to 2000) of Shallow Land Burial of Radioactive Wastes at Commercial Sites: An Update, Nuclear Safety, Vol. 21, No. 3, May-June 1980.
2. NUS Corporation, The 1979 State-by-State Assessment of Low-Level Radioactive wastes Shipped to Commercial Burial Grounds, NUS 3440, Revision 1, November 1980.

2. OVERVIEW OF LOW-LEVEL RADIOACTIVE WASTE MANAGEMENT

Historically, the generation of low-level radioactive waste and the requisite disposal practices of licensees have received little focus from regulatory agencies, interest groups, and the facilities themselves. These wastes, including their creation and environmental impact, were judged to be less than paramount in light of the waste volumes and activities produced by irradiated reactor fuel and other high-level sources. Although commercial nuclear power reactors contribute a significant portion of low-level radioactive waste, other major categories of waste generators include medical, educational, and industrial facilities.

Wisconsin is a non-agreement state whereby all radioactive material licenses are administered under the regulations of the Federal Government by the Nuclear Regulatory Commission.

There are currently three operating commercial nuclear power reactors within Wisconsin: LaCrosse Station (1 unit demonstration plant), located 19 miles south of LaCrosse; Point Beach Station (2 units), located 15 miles north of Manitowoc; and Kewaunee Station (1 unit) located 20 miles north of Manitowoc. An additional station is planned 5 miles north of Sheboygan designated as Haven-1.

No federal or military nuclear facilities currently exist within the State of Wisconsin.

Prior to the late 1960s and early 1970s, low-level radioactive waste disposal practices typically consisted of onsite storage. In accordance with existing federal regulations, wastes were generally stored in above-ground buildings or buried in shallow trenches. Present trends in waste disposal include onsite storage and eventual release to sewer systems and combination with common refuse after appropriate decay to exempt concentrations. Exempt concentrations, at minimum, follow parameters outlined in the Code of Federal Regulations, Section 10, Part 20.

The use of radioisotopes in medical diagnostic and therapeutic applications has increased as a result of relatively recent new applications and techniques in the

medical field. Due to the short half-life of nuclides normally used for these purposes, the decay and release disposal method is frequently practiced. Other major facilities often select this mode of low-level radioactive waste disposal, if this option is feasible. As the availability of commercial repositories become limited and economically prohibitive parameters impact the shipment of low-level radioactive waste, onsite decay is practiced with increased incidence.

The economics of waste shipment to distant disposal sites is dictating an efficient management program with regard to volumes generated by each facility. Trends by generator facilities appear to be channeled towards volume reduction. Evaluations are ongoing by numerous facilities to effectively reduce the volume and subsequently the number of requisite annual shipments of waste. These methods include the application of compaction, liquid evaporation, and waste solidification and incineration.

The State of Wisconsin, in light of the uncertainties surrounding the acceptance criteria of existing commercial low-level radioactive waste disposal sites, has been an active participant in Midwest states' joint discussions on low-level radioactive waste, which were initiated at the "Midwest Regional Workshop on Low-Level Radioactive Waste Disposal" hosted by Michigan in January 1980. The meeting was categorized as having three broad purposes. The following excerpt is quoted from the Summary Report⁽¹⁾ following the meeting.

. . . first, to present information to the state representatives on the key components of the problem; second, to review the programs of the various federal agencies with responsibilities in low-level waste; and third, to discuss alternatives for assuring that the midwest states have a low-level waste disposal capability. The objective of the meeting was to determine whether the states could and would work cooperatively in seeking a solution to the potential loss of sites for disposing of radioactive waste.

State representatives at the workshop agreed that the region should pursue a joint effort, and several follow-up meetings have been held. The effort to date is ad hoc in nature and has involved representatives from Minnesota, Wisconsin, Illinois, Indiana, Ohio, and Michigan. Substantively, work has been done on siting

criteria, waste disposal economics, and multi-state compacts. These discussions may be formalized and expanded in the near future. Wisconsin is pursuing the study of waste disposal siting criteria through the University of Wisconsin Extension, Geological and Natural History Survey. The criteria to be studied would include consideration of geologic, hydrologic, economic, transportation, socio-political, and legal factors involved in and related to facility siting.

In order to provide an overview of the status and practices of low-level radioactive waste management currently employed by Wisconsin licensees, a survey was recently initiated by the Radiation Protection of the Department of Health and Social Services. Initial response to the survey by licensees has been good, although final results and conclusions have not been formulated at this time.⁽²⁾

A total of 229 radioactive material licenses are in effect in Wisconsin. Information on disposal practices was solicited from each license holder by a written questionnaire (see Section 5.0). Appendix A presents the name and address of each license holder, the degree of response to the questionnaire, the type of facility, and whether they ship waste to a commercial disposal site. The degree of response was classified as follows:

N indicates that no response to the written questionnaire was received.

1 indicates the licensee did respond and provided all appropriate information.

2 indicates the licensee did respond but provided only information on type of facility, disposal method, and quantity of waste.

3 indicates the licensee did respond but provided only information on type of facility and disposal method.

The type of facility was classified as either Medical, Educational, Industrial, Power Reactor, or Governmental according to Part 1 of the survey form shown in Figure 5-1. It should be noted that the Medical classification includes both medical education facilities and governmental medical facilities, that the Educational classification excludes medical education facilities, and that the Govern-

mental classification excludes both medical and educational facilities. A service unit, such as a laboratory, was classified according to the type of facility to which it provides the service.

Of the 229 radioactive material users, contact was made with 115, of which 19 indicated they ship waste to commercial disposal facilities. Table 2-1 presents a breakdown of license holders by type of facility, response to questionnaire, and number of facilities using commercial disposal facilities. The "percent of all respondents" was calculated as the number of respondents shipping waste divided by the total number of respondents times 100. The "percent of facility respondents" was calculated as the number of respondents shipping waste divided by the total number of respondents in a facility classification times 100.

Table 2-2 presents the waste disposal practices employed, including disposal method other than shipment to commercial disposal facilities. In this table, the total of "number using" exceeds the total number of respondents due to use of several disposal practices by some facilities. It is believed that many facilities reported only the major disposal method used rather than all methods used and the data should be viewed with this qualification in mind. The "percent of all respondents" value was calculated as the number of respondents in a "type of facility" classification reporting use of a method divided by the total number of respondents times 100.

Table 2-3 presents the source of the radioactivity which eventually requires use of some disposal method.

TABLE 2-1
USE OF COMMERCIAL LOW-LEVEL WASTE FACILITIES

Type of facility	Number of licensees	Number of respondents	Percent response	Respondents using a commercial facility		
				Number	Percent of all respondents	Percent of facility respondents
Medical	94	47	50.0	7	6.1	14.9
Educational	18	10	55.6	3	2.6	30.0
Industrial	93	51	54.8	4	3.5	7.8
Power Reactor	3	3	100.0	3	2.6	100.0
Governmental	14	4	28.6	2	1.7	50.0
Unknown	7	-	-	-	-	-
TOTAL	229	115	50.2	19	16.5	-

TABLE 2-2

DISPOSAL PRACTICES USED FOR LOW-LEVEL RADIOACTIVE WASTES

Type of Facility	Number of respondents	Ship to Commercial Repository		Release to Sewer		Combine with Refuse		Bury Onsite		Vent to Atmosphere		Return to Vendor		Distribute in Product Form		No Waste Generated	
		Number* using	Percent of all respondents	Number* using	Percent of all respondents	Number* using	Percent of all respondents	Number* using	Percent of all respondents	Number* using	Percent of all respondents	Number* using	Percent of all respondents	Number* using	Percent of all respondents	Number* using	Percent of all respondents
Medical	47	7	6.1	19	16.5	21	18.3	1	0.9	13	11.3	19	16.5	0	0.0	6	5.2
Educational	10	3	2.6	6	5.2	2	1.7	2	1.7	2	1.7	3	2.6	0	0.0	2	1.7
Industrial	51	4	3.5	2	1.7	1	0.9	0	0.0	1	0.9	37	32.2	4	3.5	11	9.6
Power Reactor	3	3	2.6	0	0.0	0	0.0	0	0.0	2	1.7	0	0.0	0	0.0	0	0.0
Governmental	4	2	1.7	0	0.0	0	0.0	0	0.0	0	0.0	2	1.7	0	0.0	0	0.0
TOTAL	115	19	16.5	27	23.5	24	20.9	3	2.0	18	15.7	61	53.0	4	3.5	19	16.5

*The total of "number using" exceeds the total number of respondents due to use of several practices at each facility

TABLE 2-3

SOURCES OF RADIOACTIVITY REQUIRING DISPOSAL

Type of facility	Number of respondents	Nuclear reactor		Sealed sources		Unsealed radioactive material		Ores	
		Number of sources*	Percent of all respondents	Number of sources*	Percent of all respondents	Number of sources*	Percent of all respondents	Number of sources*	Percent of all respondents
Medical	41	0	0.0	6	6.1	38	38.4	1	1.0
Educational	8	1	1.0	5	5.1	6	6.1	1	1.0
Industrial	43	0	0.0	39	39.4	3	3.0	0	0.0
Power Reactor	3	3	3.0	0	0.0	0	0.0	0	0.0
Governmental	4	0	0.0	3	3.0	2	2.0	0	0.0
TOTAL	99	4	4.0	53	53.5	49	49.5	2	2.0

*The total of "number of sources" exceeds the total number of respondents due to facilities generating waste from several sources

REFERENCE

1. Taylor, William C., Nern, Craig, "Midwest Regional Workshop on Low-Level Radioactive Waste Disposal," Summary Report, Office of Science and Technology, State of Michigan, March 1980.
2. Personal communication, M. Bungey, Radiation Protection Section, Wisconsin Department of Health and Social Services and R. C. Smyth, NUS Corporation, July 15, 1980.

3. DEMOGRAPHY

This section identifies those demographic and economic factors and trends that affect or can be related to the quantity and nature of low-level radioactive wastes within the State of Wisconsin, to assist with an assessment of the state as a potential producer of radioactive wastes. It also identifies those institutions, including hospitals, colleges, and universities that are potential major users of radionuclides that may ultimately be radioactive wastes.

3.1 LOCATION

Wisconsin is located in the north central portion of the United States. It is bounded on the north by Lake Superior and Upper Michigan, on the east by Lake Michigan, and on the south by the State of Illinois. On its western boundary, Wisconsin is separated from Iowa and Minnesota by the Mississippi River and one of its tributaries, the St. Croix River.

3.2 POPULATION

Population trends offer a broad-gauge measure of isotope utilization in medicine, educational and research activities, and industry. As such, a trend revealing an increase in a state's population may imply increasing isotope use and, in turn, waste generation.

Wisconsin is the sixteenth most populous state in the nation, and had a population density of approximately 84 persons per square mile in 1975.^(1,2) The state's 1977 population of 4,644,000 persons represents a 5.1 percent increase over the 1970 population of 4,417,821 persons. In 1978, the state population totaled 4,683,000 persons, or an annual increase of 0.84 percent. Natural increases were largely responsible for this population growth. During the period from 1970 to 1977, there were 487,000 births and 295,000 deaths. Wisconsin also experienced a net migration of 0.8 percent from 1970 to 1977, which shows a slightly larger immigration of persons than outmigration. In 1977, the birth rate was 14.8 births per 1,000, or approximately 68,731 births compared to 39,474 deaths, or a mortality rate of 8.5 births per 1,000. The birth rate in 1978 was 14.7 births per 1,000 and the death

rate was 8.7 per 1,000 persons. (3,4,5,6) (The 1978 figure represents a 10 percent sample of all deaths in Wisconsin. A final figure is currently unavailable.)

In 1978, approximately 62.8 percent of Wisconsin's total population was situated within the state's 11 Standard Metropolitan Statistical Areas (SMSA). These areas surround the Wisconsin cities of Appleton-Oshkosh, Eau Claire, Green Bay, Janesville-Beloit, Kenosha, La Crosse, Madison, Milwaukee, and Racine; and the Minnesota cities of Duluth-Superior and Minneapolis-St. Paul. The smallest of these is the Duluth-Superior SMSA, which had a population of 45,200 persons in 1978, and the largest, the Milwaukee SMSA, had a 1978 population of 1,417,200 persons. Between 1970 and 1977 all the state's SMSAs experienced population increases. The population of Wisconsin's portion of the Minneapolis-St. Paul SMSA increased the most (17.6 percent) during this period, and the Duluth-Superior SMSA increased the least (0.3 percent). (3) Figures 3-1 and 3-2 depict the location of Wisconsin's counties and the SMSAs; Table 3-1 lists the 1970, 1977, and 1978 population of the SMSAs; and Figure 3-3 presents the state's 1975 population density.

Wisconsin's population is expected to continue to increase. Projections estimate a 1980 population of 4,752,000 persons and a 1990 population of 5,198,000 persons. These figures represent a 9.4 percent increase in population between the two years. The projected population of 5,545,000 persons for the year 2000 will represent a 6.7 percent increase from the 1990 population. (4)

3.3 ECONOMY

3.3.1 Major Business Sectors

Wisconsin's major business sectors are manufacturing, agriculture, tourism, services, and wholesale and retail trade. Of these, manufacturing is the dominant sector in Wisconsin's economy, providing over 500,000 jobs, which represents 25.0 percent of all employment in the state. In 1977, shipments of manufactured goods from Wisconsin were estimated at \$39 billion, almost 3.0 percent of the U.S. total. The production of nonelectrical machinery is the largest industry in Wisconsin, and the state leads the nation in the production of small-horsepower gasoline engines, power cranes, shovel hoists, and mining machinery. Tourism is another important industry, and in 1977 the state ranked ninth in the number of

FIGURE 3-1
COUNTIES OF THE STATE OF WISCONSIN (3)

FIGURE 3-2
STANDARD METROPOLITAN STATISTICAL AREAS
IN WISCONSIN (3)

TABLE 3-1
STANDARD METROPOLITAN STATISTICAL AREAS
IN THE STATE OF WISCONSIN^(3,4)

<u>SMSA</u>	<u>POPULATION</u>		
	<u>1970</u>	<u>1977</u>	<u>1978</u>
Appleton-Oshkosh	276,948	288,500	290,600
Duluth-Superior (Wisconsin portion)	44,657	44,800	45,200
Eau Claire	114,936	123,600	125,600
Green Bay	158,244	174,700	178,000
Janesville-Beloit	131,970	134,000	134,400
Kenosha	117,917	122,700	123,600
La Crosse	80,468	88,200	89,800
Madison	290,272	312,900	319,000
Milwaukee	1,403,884	1,418,300	1,417,200
Minneapolis-St. Paul (Wisconsin portion)	34,354	40,400	41,400
Racine	170,838	176,200	177,100
State Total	4,417,821	4,644,000	4,683,000

FIGURE 3-3
POPULATION DENSITY BY COUNTY: WISCONSIN, 1975 (2)

trips taken to a specific state. Additionally, Wisconsin's 15 million acres of forest yield a variety of wood products. The wood and wood product industries are Wisconsin's second largest employer, behind the nonelectrical equipment manufacturers. Although known for its manufacturing and agricultural products, another major business sector is the service and trades industries. Approximately 70.0 percent of Wisconsin's labor force is employed in nonmanufacturing and nonfarm activities, of which the service and trade industries are the principal components.⁽⁷⁾ Table 3-2 presents the major employment sector in each county in the state.

3.3.2 Employment and Per Capita Income

In Wisconsin, there were 2,305,000 persons in the civilian labor force in 1978, of which 1,338,000 were male and 967,000 were female. This represented a total labor force participation rate of 67.2 percent, substantially above the 1978 national rate of 63.2 percent. During the same year, the state's male (81.2 percent) and female (54.3 percent) participation rates were above the national male and female participation rates of 77.9 percent and 50.0 percent, respectively.⁽¹⁾

In 1978, per capita income in Wisconsin was \$7,597, approximately 3.0 percent below the U.S. average of \$7,810 for that year. This represented, however, a small increase in Wisconsin's per capita income since 1960, when the state's average was 1.0 percent below the U.S. average. In addition, 352,000 persons in Wisconsin lived below the poverty level in 1975. This number represented 7.7 percent of Wisconsin's total 1975 population, compared with 11.4 percent of the 1975 U.S. population.⁽¹⁾ Tables 3-3, 3-4, and 3-5 present an overview of Wisconsin's and the nation's labor force, per capita income and persons below the poverty level.

3.3.3 Gross State Product

Wisconsin's gross state product (GSP) by industry was estimated by first obtaining the gross national product (GNP) and U.S. employee compensation presented in Table 3-6. The ratio of these two measures was then computed and multiplied by the figure for employee compensation for the state. Table 3-7 presents both employee compensation and the estimated Wisconsin GSP for the years 1976, 1977, and 1978. While the GNP rose from \$1.6 trillion to \$2.0 trillion between 1976 and 1978,

TABLE 3-2

MAJOR EMPLOYMENT SECTORS
IN WISCONSIN BY COUNTY (8)

<u>Counties</u>	<u>Major Employment Sector</u>
Fond du Lac, Ozaukee, Richland Washington	Manufacturing: Electric and Electronic Equipment
Juneau, Kenosha, Langlade, Manitowac, Monroe, Sheboygan	Manufacturing: Fabricated Metal Products
Barron, Chippewa, Clark, Dane, Marquette, Oconto	Manufacturing: Food Products
Ashland, Burnette, Kewaunee, Lincoln, Menominee, Rusk, Taylor	Manufacturing: Lumber, Wood Products
Calumet, Columbia, Dodge, Jefferson, La Crosse, Milwaukee, Racine, Rock, Walworth, Waukesha	Manufacturing: Machinery Production
Brown, Marathon, Marinette, Outagamie, Price, Winnebago, Wood	Manufacturing: Paper, Paper Products
Green Lake	Manufacturing: Primary Metal Industries
Sauk	Manufacturing: Rubber, Plastics
Crawford	Manufacturing: Stone, Clay and Glass Products
Door, Waupasco	Manufacturing: Transportation Equipment
Buffalo, Douglas, Dunn, Eau Claire, Florence, Grant, Green, Iron, Jackson, Lafayette, Oneida, Pepin, Pierce, Polk, Portage, Sawyer, Shawano, Trempealeau, Vilas, Washburn, Naushara	Retail Trade
Bayfield, Iowa, St. Croix, Vernon	Services

TABLE 3-3

U.S. AND WISCONSIN LABOR FORCES (THOUSANDS),
1976, 1978(1)

	1976			1978		
	<u>Total</u>	<u>Male</u>	<u>Female</u>	<u>Total</u>	<u>Male</u>	<u>Female</u>
U.S.	94,773	56,359	38,414	100,420	58,542	41,878
Wisconsin	2,175	1,306	869	2,305	1,338	967
Percent of U.S.	2.29	2.32	2.26	2.30	2.29	2.31

TABLE 3-4

PER CAPITA INCOME (CURRENT DOLLARS)
IN THE U.S. AND WISCONSIN FOR SELECTED YEARS(1)

<u>Year</u>	<u>U.S.</u>	<u>Wisconsin</u>	<u>Rank</u>	<u>Percent of U.S.</u>
1960	2,201	2,178	20	99
1970	3,893	3,712	21	85
1975	5,861	5,616	27	96
1978	7,810	7,597	25	97

TABLE 3-5

PERSONS BELOW THE POVERTY LEVEL (THOUSANDS)
IN THE U.S. AND WISCONSIN, 1969, 1975(1)

<u>Year</u>	<u>U.S.</u>		<u>Wisconsin</u>	
	<u>Number</u>	<u>Percent</u>	<u>Number</u>	<u>Percent</u>
1969	27,125	13.7	421	9.8
1975	23,991	11.4	352	7.7

TABLE 3-6

GROSS NATIONAL PRODUCT, U.S. EMPLOYEE COMPENSATION AND RATIO OF PRODUCT
TO COMPENSATION (BILLIONS OF DOLLARS) BY INDUSTRY (9,10,11)

Industry	1976			1977			1978		
	Product	Compensation	Ratio	Product	Compensation	Ratio	Product	Compensation	Ratio
1. Farms	46.4	18.682	2.4837	49.2	19.759	2.4900	59.5	27.880	2.1341
2. Agricultural services, forestry & fisheries	5.0	3.919	1.2758	5.9	4.568	1.2916	7.1	5.426	1.3085
3. Mining	42.5	15.756	2.6974	48.2	17.556	2.7455	55.1	20.552	2.6810
4. Construction	74.5	61.301	1.2153	83.5	68.886	1.2121	95.3	79.777	1.1946
5. Nondurable goods	166.5	100.031	1.6645	181.9	110.347	1.6484	196.5	121.450	1.6179
6. Durable goods	236.7	171.593	1.3794	274.1	196.235	1.3968	312.6	223.969	1.3957
7. Transportation	62.6	43.494	1.4393	70.4	49.560	1.4205	81.4	56.013	1.4532
8. Communication	45.2	21.701	2.0829	49.5	24.318	2.0355	55.9	27.953	1.9999
9. Electric, gas, sanitary services	43.3	13.280	3.2605	48.4	14.852	3.2588	53.5	16.682	3.2070
10. Wholesale and retail trade	296.7	177.385	1.6726	323.1	193.985	1.6656	360.5	217.952	1.6540

TABLE 3-6 (concluded)

GROSS NATIONAL PRODUCT, U.S. EMPLOYEE COMPENSATION AND RATIO OF PRODUCT
TO COMPENSATION (BILLIONS OF DOLLARS) BY INDUSTRY (9,10,11)

Industry	1976			1977			1978		
	Product	Compensation	Ratio	Product	Compensation	Ratio	Product	Compensation	Ratio
11. FIRE*	235.2	57.308	4.1041	267.8	66.548	4.0242	298.7	76.165	3.9217
12. Services	207.4	173.153	1.1978	234.8	194.692	1.2060	268.7	221.939	1.2107
13. Federal Gov.	57.6	63.425	0.9087	59.0	67.148	0.8790	62.4	72.097	0.8656
14. State and Local Gov.	127.9	123.092	1.0392	138.1	133.026	1.0380	149.9	144.364	1.0380
TOTAL	1,647.6	1,044.120		1,833.9	1,161.480		2,057.1	1,312.219	

*Finance, Insurance, Real Estate

TABLE 3-7

EMPLOYEE COMPENSATION AND ESTIMATED GROSS
STATE PRODUCT (MILLIONS OF DOLLARS)
BY INDUSTRY FOR WISCONSIN(10,11)

Industry	1976		1977		1978	
	Compensation	GSP	Compensation	GSP	Compensation	GSP
1. Farms	585.8	1,455.0	1,174.6	2,924.8	1,160.9	2,477.5
2. Agricultural services	63.0	80.4	70.0	90.4	82.0	107.3
3. Mining	40.0	107.9	45.0	123.5	49.0	131.4
4. Construction	1,210.0	1,470.5	1,424.0	1,726.0	1,619.0	1,934.0
5. Nondurable goods	2,539.0	4,226.2	2,806.0	4,625.5	3,140.0	5,080.4
6. Durable goods	5,131.0	7,077.8	5,760.0	8,045.5	6,663.0	9,299.7
7. Transportation	725.0	1,043.5	834.0	1,184.7	944.0	1,371.9
8. Communication	319.0	664.4	349.0	710.4	387.0	787.7
9. Electricity, gas, san. serv.	272.0	886.9	299.0	974.4	332.0	1,064.7
10. Wholesale and retail trade	3,491.0	5,839.2	3,818.0	6,359.2	4,241.0	7,014.8
11. FIRE*	998.0	4,095.9	1,157.0	4,655.9	1,324.0	5,192.4
12. Services	3,043.0	3,644.9	3,417.0	4,120.9	3,853.0	4,664.8
13. Federal Government	451.0	409.8	453.0	398.2	507.0	438.9
14. State and Local Government	2,667.0	2,771.6	2,787.0	2,892.8	3,077.0	3,194.1
TOTAL	21,535.8	33,774.0	24,391.6	38,832.2	27,377.9	42,759.6
Percent of U.S.	2.06	2.05	2.10	2.12	2.09	2.08

*Finance, Insurance, Real Estate

Wisconsin's GSP rose from \$33.8 billion to \$42.8 billion and was just below 2.1 percent of the GNP during these years. (9,10,11) During the same 3-year period, personal income in Wisconsin rose from \$21.6 billion to \$27.5 billion, remaining at about 2.1 percent of U.S. income. (11)

Figure 3-4 portrays percent of gross product, by industry, for the United States and Wisconsin in 1978. At this time the state differed greatly from the nation in three areas: farming, which was about two times as important in the state as in the nation; mining, which was one-eighth as important in the state; and federal government, which was one-third as important in the state. Additionally, the relative portions of nondurable and durable goods was greater for Wisconsin than the United States as a whole. Nondurable goods represented 11.9 percent of Wisconsin's output and 9.7 percent of U.S. output, and durable goods represented 21.8 percent of the state's output compared to 15.4 percent of the nation's output. (9,10,11)

3.4 AGRICULTURE

There were approximately 1,000 fewer farms in the State of Wisconsin at the beginning of 1978 than there were a year earlier; nevertheless, the production of Wisconsin's principal crops and livestock generally increased between 1977 and 1978. Fruit and vegetable production gained an annual increase of 3.8 percent and 1.8 percent, respectively. The yearly production figures for these commodities are: 78,000 tons of fruit and 1,143,000 tons of vegetables in 1977, and 81,000 tons of fruit and 1,163,000 tons of vegetables in 1978. The one exception to the increase in agricultural production, however, was the state's 1978 grain, forage, and miscellaneous crop production level of 32,396,000 tons, down 5.8 percent from the state's recordbreaking yield of 34,388,000 tons in 1977. As a result, the value of all crops produced also decreased, from \$1,831,697,000 in 1977 to \$1,523,859,000 in 1978. (12)

In contrast, Wisconsin's 1978 production of cattle and calves was 979,675,000 pounds, as compared to the 1977 production figure of 919,740,000 pounds. Hog production also increased, from 516,221,000 pounds in 1977 to 574,389,000 pounds in 1978. The 1978 state sheep production level of 6,567,000 pounds represents a 11.3 percent increase over the 1977 production level of 6,518,000 pounds. Altogether,

FIGURE 3-4
PERCENT OF GROSS PRODUCT BY INDUSTRY:
UNITED STATES AND WISCONSIN, 1978 (9,10,11)

the value of livestock produced in Wisconsin was \$501,643,000 in 1977 and \$656,721,000 in 1978. ⁽¹²⁾

Although Wisconsin produces large quantities of crops and livestock, dairying accounts for 60.0 percent of the state's agricultural income. The value of all dairy production in Wisconsin rose 12.6 percent between 1977 and 1978, from \$1,890,352,000 to \$2,127,573,000. This increase in value was accompanied by a 1.0 percent increase in production, since the state produced 21,252,000,000 pounds of milk in 1978 as compared to 21,041,000,000 pounds the preceding year. ⁽¹²⁾ An inventory of Wisconsin's principal agricultural commodities and the state's rank in the nation's agriculture is presented in Table 3-8.

3.5 SCHOOLS AND HOSPITALS

Several institutions in Wisconsin are potential sources of radioactive wastes through the use of radionuclides. Colleges and universities are such potential sources; Wisconsin has 62 colleges and universities with an approximate 1977 fall enrollment of 245,493 students and a 1978 fall enrollment of 241,384 students. ^(14,15) Thirty-seven institutions had fewer than 2,500 students; 11 had student bodies between 2,500 and 4,999; another 8 had enrollments between 5,000 and 9,999; and 6 had student populations numbering more than 10,000. ⁽¹⁴⁾

In addition to schools, Wisconsin had 171 hospitals with a total of 28,556 beds in 1979. Of these institutions, 132 had fewer than 250 beds, 32 had between 250 and 499 beds, and an additional 7 had 500 or more beds. ⁽¹⁶⁾ In 1976, Wisconsin had 175 hospitals with a total of 30,081 beds, and in 1974, there were 183 hospitals with a total of 32,621 beds located in Wisconsin. ^(17,18) The American Hospital Association explains the decrease in the number of hospitals, a national trend since 1967, as the result of the loss of specialty hospitals, predominantly from the closing of tuberculosis hospitals and the removal of hospital beds from psychiatric hospitals. ⁽¹⁷⁾

TABLE 3-8

WISCONSIN'S RANK IN THE NATION'S AGRICULTURE, 1978(13)

<u>Commodity</u>	<u>Rank Among States</u>	<u>Production as a Percent of U.S. Totals</u>
Crops:		
Beets (for canning)	1	42.5
Hay	1	8.2
Snap Beans (for processing)	1	26.3
Cabbage (for sauerkraut)	2	27.4
Corn (for silage)	2	9.5
Cranberries	2	34.1
Green Peas (for processing)	2	23.6
Sweet Corn (for processing)	2	20.8
Lima Beans (for processing)	3	7.3
Tart Cherries	3	6.3
Cabbage	4	7.3
Carrots	4	8.1
Cucumbers (for pickles)	5	8.9
Oats	5	10.4
Corn (for grain)	7	3.8
Potatoes	7	4.8
Livestock:		
Cattle and Calves	8	3.7
Hogs	11	2.8
Dairy Products:		
Milk	1	17.4
Butter	1	25.1
Cheese (excluding cottage cheese)	1	37.8

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4. GOVERNMENTAL AND PUBLIC ASPECTS

This section presents an overview of Wisconsin's state government and identifies the government institutions and agencies with statutory or other responsibilities affecting the generation, handling, and disposal of radioactive wastes within the state. The identities and attitudes of state officials and other organizations impinging on this issue are presented in the text, and where possible, in available representative print media.

4.1 MAJOR POLITICAL PARTIES

Partisan political organization is an integral part of Wisconsin's legislative process. Since 1947 all Wisconsin legislators have been affiliated with either the Republican or Democratic Party. Currently, the Democrats hold 59 percent of the seats in the Wisconsin Senate and 61 percent of the seats in the Wisconsin Assembly. In addition, one of Wisconsin's Senators and five of their nine Congressional Representatives are members of the Democratic party.⁽¹⁾

4.2 CONGRESSIONAL REPRESENTATIVES

Wisconsin's two Congressional Senators are William Proxmire (Democrat) and Bob Kaston (Republican).⁽¹⁾ Senator Proxmire is indirectly involved in nuclear issues in Congress. As ranking minority member of the Committee on Appropriations, Subcommittee on HUD-Independent Agencies, the Senator is responsible for the budget of the Environmental Protection Agency (EPA), one of the agencies under the subcommittee's jurisdiction. Through its departments and divisions dealing with air, noise, and radiation, water and waste, and pesticides and toxic substances, the EPA may be drawn into radioactive waste issues.^(2,3) Senator Kaston, is also a member of the Committee on Appropriations and is a member of its Defense and Energy and Water Development subcommittees.

Wisconsin is also represented in the United States Congress by nine Representatives, who are presented in Table 4-1 in conjunction with Wisconsin's Senators.⁽¹⁾ The table also indicates the congressional committees the Senators and Representatives serve on and their length of service in Congress. Figure 4-1 indicates the location of Wisconsin's congressional districts.

4.3 STATE GOVERNMENT

The Wisconsin government is divided into the executive, the legislative, and the judicial branches, and is regulated by the U.S. Constitution, the Wisconsin Constitution (adopted in 1848), and numerous federal and state statutes. ⁽¹⁾

4.3.1 Executive Branch

The executive branch, under the supervision of the Governor, carries out the programs and policies authorized by the legislation in addition to providing input to the development of state programs and policies. This branch of the government consists of 6 constitutional officials, 16 operating departments, 19 independent agencies, and 3 authorities. Each of the constitutional officials is elected for a 4-year term. ⁽¹⁾

Governor

The present Governor, Lee Sherman Dreyfus (Republican), was elected in 1978. The Governor exercises his administrative powers through the appointment of department heads, and members of commissions, boards, and authorities. He has input to the legislative process through the budget which he submits to the legislature, through his report on the condition of the state, through recommendations to the legislature, and through the use of his veto power over legislation or his item veto on appropriation bills. ⁽¹⁾

The Governor's office is actively involved in the nuclear waste issue in Wisconsin. In the latter part of 1979, the Governor and other state policymakers attended a briefing session conducted by the U.S. Department of Energy (DOE) concerning the Department's high-level waste repository site characterization program. Representatives of Governor Dreyfus have also been participating in the Midwest task force on low-level waste management chaired by Dr. William Taylor, Science Advisor to the Governor of Michigan. The task force, composed of Governors' representatives from Wisconsin, Michigan, Illinois, Indiana, Minnesota, and Ohio began discussions in

TABLE 4-1

WISCONSIN MEMBERS OF THE UNITED STATES CONGRESS (3,4)

<u>State Delegate</u>	<u>District</u>	<u>Political Affiliation</u>	<u>Beginning of Present Service</u>	<u>Congressional Committees</u>
Senators:				
Bob Kasten	Entire State	Republican	1981	Committee on Budget Committee on Commerce, Science, and Transportation - Subcommittee on Consumer, Chairman - Subcommittee on Science, Technology and Space Committee on Veteran's Affairs Committee on Appropriations - Subcommittee on Agriculture and Related Agencies - Subcommittee on Defense - Subcommittee on Energy and Water Development - Subcommittee on Transportation - Subcommittee on Foreign Affairs, Chairman

TABLE 4-1 (continued)

WISCONSIN MEMBERS OF THE UNITED STATES CONGRESS (3,5)

<u>State Delegate</u>	<u>District</u>	<u>Political Affiliation</u>	<u>Beginning of Present Service</u>	<u>Congressional Committees</u>
William Proxmire	Entire State	Democrat	1957	Committee on Appropriations - Subcommittee on Defense - Subcommittee on HUD-Independent Agencies - Subcommittee on Labor, Health, Human Services and Education - Subcommittee on Treasury, Postal Service, and General Government Committee on Banking, Housing, and Urban Affairs - Subcommittee on International Finance and Monetary Policy - Subcommittee on Financial Institutions - Subcommittee on Housing and Urban Affairs Joint Economic Committee

TABLE 4-1 (continued)

WISCONSIN MEMBERS OF THE UNITED STATES CONGRESS (3,4)

<u>State Delegate</u>	<u>District</u>	<u>Political Affiliation</u>	<u>Beginning of Present Service</u>	<u>Congressional Committees</u>
Representatives:				
Lee Aspin	First	Democrat	1971	Committee on Armed Services Committee on Budget
Robert W. Kastenmeier	Second	Democrat	1959	Committee on Interior and Insular Affairs Committee on Judiciary

TABLE 4-1 (continued)

WISCONSIN MEMBERS OF THE UNITED STATES CONGRESS (3,4)

<u>State Delegate</u>	<u>District</u>	<u>Political Affiliation</u>	<u>Beginning of Present Service</u>	<u>Congressional Committees</u>
Steven Gunderson	Third	Republican	1981	Committee on Agriculture
Clement J. Zablocki	Fourth	Democrat	1949	Committee on Foreign Affairs, Chairman Permanent Select Committee on Intelligence

TABLE 4-1 (continued)

WISCONSIN MEMBERS OF THE UNITED STATES CONGRESS (3,4)

<u>State Delegate</u>	<u>District</u>	<u>Political Affiliation</u>	<u>Beginning of Present Service</u>	<u>Congressional Committees</u>
Henry S. Reuss	Fifth	Democrat	1955	Committee on Banking, Finance and Urban Affairs, Chairman Joint Economic Committee, Chairman
Thomas E. Petri	Sixth	Republican	1979	Committee on Education and Labor

TABLE 4-1 (concluded)

WISCONSIN MEMBERS OF THE UNITED STATES CONGRESS (3,4)

<u>State Delegate</u>	<u>District</u>	<u>Political Affiliation</u>	<u>Beginning of Present Service</u>	<u>Congressional Committees</u>
David R. Obey	Seventh	Democrat	1969	Committee on Appropriations Committee on the Budget
<div> <div> <div> <div> <div>f</div> <div>o</div> </div> </div> </div> </div> Toby Roth	Eighth	Republican	1979	Committee on Foreign Affairs
F. James Sesenbrenner, Jr.	Ninth	Republican	1979	Committee on Judiciary Committee on Science and Technology

FIGURE 4-1
WISCONSIN CONGRESSIONAL DISTRICTS (1)

January 1980 concerning regional approaches to low-level nuclear waste disposal. The executive branch is further involved in the waste disposal issue through the Governor's Committee on Radioactive Waste Disposal. The committee was established within the last year to review high- and low-level waste in the State of Wisconsin. (5)

Lieutenant Governor

Russell A. Olson (Republican) is Wisconsin's current Lieutenant Governor and was elected in 1978. The Lieutenant Governor assumes the responsibilities of the Governor in the event of the Governor's death, incapacitation, or absence. Other responsibilities, such as representing the Governor on various boards, commissions, and committees, may be delegated to the Lieutenant Governor by the Chief Executive. (1)

Secretary of State

The present Secretary of State, Vel Phillips (Democrat), was elected in 1978. The responsibilities of the Secretary of State include the filing of state documents; maintaining records of organizations, corporations, and cooperatives; filing of statements submitted under the Uniform Commercial Code; regulation of lobbying; registering of trademarks and trade names; and issuing of notary public commissions. (1)

State Treasurer

Charles P. Smith (Democrat) was elected State Treasurer in 1970 and re-elected in 1974 and 1978. The State Treasurer is responsible for the custody and disbursement of state funds, acts as registrar of bonds, and serves as treasurer for various boards and funds. He is also a member of the Commissioners of Public Land, the State Board of Canvassers, the State Financial Advisory Board, and the State Depository Selection Board. (1)

Attorney General

Wisconsin's present Attorney General, Bronson C. LaFollette (Democrat), was elected in 1964 and re-elected in 1966, 1974, and 1978. He heads the Department of Justice, which provides the state and the state officials with legal representation and advice, and other law enforcement services. ⁽¹⁾

State Superintendent of Public Instruction

The present State Superintendent of Public Instruction, Barbara Thompson, was elected in 1973 and again in 1977. She is head of the Department of Public Instruction and is responsible for managing the state's schools. ⁽¹⁾

State Agencies

In Wisconsin, various state agencies are responsible for monitoring and regulating nuclear wastes in the state. The Public Service Commission is responsible for regulating the construction of all nuclear generating facilities and associated waste storage facilities. The Department of Transportation has the authority to supervise and regulate nuclear waste shipments in Wisconsin. The power to regulate ionizing radiation sources is held by the Department of Health and Social Services. The Department, through the Radiation Protection Control, is also responsible for monitoring the policies and programs concerning radioactive material, which affect public health. Additionally, emergency situations involving hazardous radioactive materials are the responsibility of the Division of Emergency Government, and the Department of Natural Resources regulates hazardous waste storage and disposal in Wisconsin. ^(1,5)

In addition to these agencies, other state agencies such as the Department of Agriculture, or the Department of Administration may become involved in the nuclear energy issue or radioactive waste disposal issue because of interest or jurisdiction in the areas of land-use planning, and environmental management or protection. Figure 4-2 inventories Wisconsin's state agencies.

FIGURE 4-2
LIST OF STATE AGENCIES (6)

WISCONSIN

ADJUTANT GENERAL

Hugh M. Simonson, The Adjutant General
Department of Military Affairs
3020 Wright St.
P.O. Box 8111
Madison WI 53708
(608) 241-6300

ADMINISTRATION

John Torphy, Secretary
Department of Administration
211 Wilson Street State Office Bldg.
1 W. Wilson St.
Madison WI 53702
(608) 266-1741

AERONAUTICS

Fritz E. Wolf, Administrator
Division of Aeronautics
Department of Transportation
551 Hill Farms State Office Bldg.
4802 Sheboygan Ave.
P.O. Box 7914
Madison WI 53707
(608) 266-3351

AGING

Douglas W. Nelson, Director
Bureau of Aging
Division of Community Services
Department of Health and Social Services
Wilson Street State Office Bldg.
1 W. Wilson St.
Madison WI 53702
(608) 266-2536

AGRICULTURE

Gary E. Rohde, Secretary
Department of Agriculture, Trade, and Consumer Protection
801 W. Badger Rd.
P.O. Box 8911
Madison WI 53708
(608) 266-7100

AIR POLLUTION CONTROL

Bob Arnott, Director
Bureau of Air Management
Division of Environmental Standards
Department of Natural Resources
Pyare Square Bldg.
4610 University Ave.
P.O. Box 7921
Madison WI 53707
(608) 266-0603

ALCOHOLISM

Larry W. Monson, Director
Bureau of Alcohol and Other Drug Abuse
Division of Community Services
Department of Health and Social Services
523 Wilson Street State Office Bldg.
1 W. Wilson St.
Madison WI 53702
(608) 266-2717

ARCHIVES AND RECORDS

Richard A. Erney, Director
State Historical Society of Wisconsin
816 State St.
Madison WI 53706
(608) 262-3266

ARTS AND HUMANITIES

Jerrold Rouby, Executive Director
Wisconsin Arts Board
Loraine Bldg.
123 W. Washington Ave.
Madison WI 53702
(608) 266-0190

ATTORNEY GENERAL

Bronson C. La Follette, Attorney General
Wisconsin Department of Justice
114E State Capitol
Madison WI 53702
(608) 266-1221

AUDIT

Robert R. Ringwood, State Auditor
Legislative Audit Bureau
James Wilson Plz.
131 W. Wilson St.
Madison WI 53702
(608) 266-2818

BANKING

Erich Mildenberg, Commissioner
Office of the Commissioner of Banking
30 W. Mifflin St.
Madison WI 53703
(608) 266-1621

BUDGET

Ken Howard, Administrator
Executive Services Division
Department of Administration
B114 Wilson Street State Office Bldg.
1 W. Wilson St.
Madison WI 53702
(608) 266-1736

WISCONSIN

MOTOR VEHICLES

Norbert K. Anderson, Administrator
Division of Motor Vehicles
Department of Transportation
255 Hill Farms State Office Bldg.
4802 Sheboygan Ave.
Madison WI 53702
(608) 266-2233

NATURAL RESOURCES

Anthony S. Earl, Secretary
Department of Natural Resources
Pyare Square Bldg.
4610 University Ave.
P.O. Box 7921
Madison WI 53707
(608) 266-2121

OCCUPATIONAL SAFETY AND HEALTH

John Wenning, Jr., Administrator
Safety and Buildings Division
Department of Industry, Labor, and Human Relations
General Executive Facility 1
201 E. Washington Ave.
P.O. Box 7946
Madison WI 53707
(608) 266-1816

PARKS

Donald J. Mackie, Director
Bureau of Parks and Recreation
Division of Resource Management
Department of Natural Resources
Pyare Square Bldg.
4610 University Ave.
P.O. Box 7921
Madison WI 53707
(608) 266-2181

PERSONNEL

Verne H. Knoll, Deputy Administrator
Division of Personnel
Department of Employment Relations
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FIGURE 4-3
WISCONSIN SENATORIAL DISTRICTS (1)

4.3.2 Legislative Branch

The power to determine state policies and programs is primarily that of the legislative branch, which is composed of the Wisconsin Senate and Wisconsin Assembly. The senate consists of 33 members elected for 4-year terms, half elected every 2 years. The assembly consists of 99 members all elected every 2 years. The Wisconsin Constitution requires that senatorial districts consist of whole assembly districts. The districts must be of equal number of inhabitants.⁽¹⁾ Figures 4-3 and 4-4 delineate the senatorial and assembly districts.

Regular legislative sessions convene on the first Tuesday after January 8th, following elections, and continue for 2 years. Sessions consist of five floor periods interspersed with periods for committee work. The Governor may call special sessions of the legislature to act upon special matters. Much of the work of the legislature is carried out in the senate's 12 standing (permanent) committees, the 31 standing committees of the assembly, as well as the legislature's 7 joint subcommittees and 3 survey committees.⁽¹⁾

Legislation sent to the Governor from both houses becomes law if signed by the Governor, if not signed within 6 days (while the legislature remains in sessions) or if the Governor's veto is overridden by a two-thirds majority of both houses. A bill may die (pocket veto) if the 6-day time limit expires when the legislature is not in sessions.⁽¹⁾

During the 1977 and 1979 legislative sessions, the legislature approved two bills affecting radiation issues and radioactive waste management in Wisconsin. Chapter 320, Wisconsin Law of 1979, reorganized and redefined the responsibilities of the Department of Health and Social Services' Radiation Protection Council, which was created by an earlier act. As designated in Chapter 320, the council is responsible for monitoring the development and implementation of private, local, state, and federal policies and programs concerning radioactive materials which affect the health and well-being of Wisconsin residents.^(1,7,9) Chapter 377, Wisconsin Law 1977, established a program for the management of hazardous waste and regulates the establishment of new solid waste disposal sites. This new management program includes a 3-step approval procedure for solid or hazardous waste disposal or storage by the Department of Natural Resources, a hazardous waste management act

FIGURE 4-4
WISCONSIN ASSEMBLY DISTRICTS (1)

including standards for persons generating hazardous waste, provisions for preventing and controlling discharge or spills of hazardous substances and provisions for the long-term care of disposal sites. Additionally, an Assembly Bill (Bill 212) relating to state action on the proposed construction of radioactive waste disposal facilities in the state, was introduced by the legislative council and referred to the Committee on Environmental Resources in 1979. ^(1,7,9,10) Chapters 320 and 377 are presented in Appendix B.

4.3.3 Judicial Branch

In 1978, a special sessions of the legislature implemented amendments which provided Wisconsin with a "single-level" trial court system, a court of appeals, and revised authority for the municipal courts. Under the reorganization, the circuit court became the single-level court, as county courts were abolished and the county judges were designated as circuit judges. Also at that time, circuit court boundaries were revised so that each county became a circuit except for the following three combined county districts: Buffalo-Pepin, Shawano-Menominee, and Forest-Florence. Circuit judges serve in the circuit courts for the counties in which they reside and are elected on a nonpartisan ballot. ⁽¹⁾

The state's judicial branch is headed by the Supreme Court of Wisconsin, consisting of seven justices elected statewide for a 10-year term. The supreme court has original jurisdiction for a limited number of cases of statewide concern, is the final authority on the state constitution, and acts as the state's appellate court. ⁽¹⁾

The Court of Appeals of Wisconsin consists of 12 judges elected from 4 appeal districts, 3 judges from each district for a term of 6 years. The main offices of the court of appeals in each district are Milwaukee, Waukesha, Wausau, and Madison. ⁽¹⁾

The remaining courts in the Wisconsin judicial system are the 10 judicial districts and the over 200 municipal justice courts located in cities, villages, and towns. These courts have limited jurisdiction. ⁽¹⁾

4.3.4 Statutory Regulations

There are several state statutes relating to hazardous materials in Wisconsin and these statutes are presented in Appendix B. According to state statute chapter 196.491, the Public Service Commission must grant a certificate of authority before any nuclear generating plant or associated waste disposal facility can begin construction. State Statute 196.745 and administrative codes 104.04 and 111.24 address the construction of radiological facilities in Wisconsin. Additionally, state statute 140.50-.60 states that the administrative rules for the control of all ionizing radiation sources is the responsibility of the Department of Health and Social Services, as specified in the Radiation Protection Act. (1,7)

4.4 FEDERAL ACTIVITIES IN THE STATE OF WISCONSIN

In Wisconsin, the U.S. Department of Energy (DOE) has been active recently in briefing state officials about the Department's high-level waste disposal program. These briefings included a presentation of DOE research concerning the suitability of certain states' geologic formations for use as sites for the disposal of high-level waste. No other federal activities are currently taking place in Wisconsin. (7)

4.5 INTEREST GROUPS

Many interest groups concerned with nuclear issues and radioactive wastes have offices in Wisconsin. In addition, there are many groups generally concerned with the environment who may become actively involved in nuclear energy and waste management issues if they view the issues as detrimental to their environmental interests. Following is a list of some of the major energy and environmental organizations located in Wisconsin and their specific areas of concern. (7,11,12,13)

American Society of Civil Engineers; Wisconsin Chapter: Professional group concerned with the nuclear energy field.

Black Hills Alliance: Currently involved in research, public education, and legislative action with respect to nuclear energy and radioactive wastes.

Capitol Community Citizens: Interested in the adoption of wise and far-sighted policies affecting the environment of the Madison metropolitan area.

Citizens Natural Resources Association of Wisconsin, Inc: Concerned with environmental problems such as use of chemicals, water pollution and protection of unusual ecological habitats.

Dead Serious: Concerned with the hazards of nuclear energy and radioactive wastes.

Friends of the Earth: Committed to the "preservation, restoration and rational use of the earth." Some of their recent concerns deal with the issues of nuclear power safety, strip mining, energy conservation, and water pollution.

Illinois-Wisconsin Friends Committee on Legislation: Has a strong concern in environmental legislation.

League Against Nuclear Dangers: Concerned with informing citizens of the inherent hazards of nuclear fission.

Northern Thunder: Concerned with the hazards of nuclear power.

Protect Our Wisconsin Environmental Resources (POWER): Concerned with nuclear safety.

Sierra Club, John Muir Chapter: The Sierra Club's Energy Committee advocates a moratorium on the further construction of nuclear plants. In general, the club is concerned with preserving the natural environment and protecting it from the adverse impacts of Man and his society.

Washington County Environmental Council: Deals with environmental concerns in the county such as land use, solid-waste disposal, and the energy crisis.

Winds: Currently involved in research, legal, and legislative action with respect to nuclear energy and radioactive wastes.

Wisconsin Ecological Society: Concerned with technological advances and their impact on the environment.

Wisconsin Environmental Decade: Research, public education, legal, and legislative action with respect to broad environmental concerns.

Wisconsin Environmental Health Association: A group of professionals interested in radiological health, air and water pollution control, solid waste management, community planning, and industrial hygiene.

4.6 PRINTED MEDIA

The 11 newspaper articles presented in Appendix C generally represent the results of a search of 2 major newspapers published in the state over a 2-week period and are related to the broad subject of nuclear power. This search was not intended to be all encompassing nor representative of the major issues of concern in Wisconsin. Although the issues reviewed did not produce more than three articles specifically related to low-level radioactive waste, the articles are intended to present a general indication of the coverage of radiation issues by printed media in the State of Wisconsin.

Further indications of the public's interest in nuclear related issues however, are available on a limited basis. Although the Wisconsin State Journal has printed several editorials within the last year which deal with the subject of nuclear energy or radioactive wastes, the Milwaukee Sentinel does not file its past editions by subject or topic, making it extremely difficult to ascertain if, or when, the paper printed any editorials dealing with these topics. In addition, neither newspaper has recently conducted a poll or survey concerning radiation issues. (13,14)

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11. Center for California Public Affairs, Directory of Consumer Protection and Environmental Agencies. Academic Press, Orange, New Jersey, 1973.
12. Personal communication with Kathy Bendfield, Wisconsin State Journal, September 25, 1980.
13. Personal communication with Mary Richie, Milwaukee Sentinel, September 25, 1980.

5. SURVEY METHODOLOGY

A brief questionnaire was developed to solicit basic information necessary to generally characterize the low-level radioactive waste management practices in the state of Wisconsin. The survey form is presented in Figure 5-1. The form is divided into five parts dealing with areas of:

- I Type of Facility
- II Disposal Method
- III Sources of Radioactive Waste
- IV Physical Form of Shipped Waste
- V Waste Quantity

The form was designed to provide information in a structured format (i.e., check off of predefined possible answers) where ever possible.

In addition, the questions asked were limited to those which have a direct bearing on the overall characterization of practices within the state, rather than on the detailed characterization of each facility.

The name and address of each radioactivity licensee within the state was obtained from the Nuclear Regulatory Commission. A questionnaire package was mailed to each licensee and consisted of a transmittal letter, a blank survey form, and a return envelope. The transmittal letter is presented in Figure 5-2.

As each response was received from the licensees, the information presented in Appendix A, List of Radioactive Material Licensees, of this Briefing Book was determined. A three-week response period was allowed, at which point all licensees not responding were classified as such and their "type of facility" classification determined from the licensee name, if possible. If not possible, they were classified as "unknown." The information provided by the licensees was then tabulated in the formats presented in Sections 2 and 6 of this Briefing Book.

FIGURE 5-1

NUS RADIOACTIVE WASTE SURVEY

LICENSEE NAME _____
NAME OF FACILITY _____
STREET ADDRESS _____
CITY/STATE/ZIP _____
TELEPHONE NO. _____
PERSON SUPPLYING INFORMATION _____
TITLE _____

PART I - TYPE OF FACILITY

(CHECK THE ONE CATEGORY WHICH IS MOST APPLICABLE)

MEDICAL

- ☐ HOSPITAL
- ☐ PHARMACEUTICAL MANUFACTURER
- ☐ MEDICAL RESEARCH/EDUCATION
- ☐ OTHER (SPECIFY) _____

INDUSTRIAL

- ☐ INCORPORATES RADIOACTIVITY INTO PRODUCTS
- ☐ USES RADIOACTIVITY IN PROCESS CONTROL
- ☐ COMMERCIAL POWER REACTOR
- ☐ OTHER (SPECIFY) _____

EDUCATIONAL

- ☐ UNIVERSITY
- ☐ HIGH SCHOOL
- ☐ OTHER (SPECIFY) _____

GOVERNMENTAL (NON-MEDICAL OR EDUCATIONAL)

- ☐ FEDERAL
 - ☐ MILITARY
 - ☐ STATE
 - ☐ LOCAL
-
-

PART II - DISPOSAL METHOD

CHECK EACH DISPOSAL METHOD WHICH YOU DO EMPLOY

- ☐ SHIP TO COMMERCIAL REPOSITORY
- ☐ RELEASE TO SEWER
- ☐ COMBINE WITH COMMON REFUSE
- ☐ VENT TO ATMOSPHERE
- ☐ BURY ON-SITE
- ☐ RETURN TO VENDOR
- ☐ DISTRIBUTE IN PRODUCT FORM
- ☐ NO WASTE GENERATED
- ☐ OTHER (SPECIFY) _____

FIGURE 5-1 (Continued)
PART III - SOURCE OF RADIOACTIVE WASTE

(CHECK EACH SOURCE OF YOUR POTENTIAL RADIOACTIVE WASTE AND, IF YOU SHIP, INDICATE THE PERCENTAGE OF YOUR TOTAL SHIPPED WASTE VOLUME ORIGINATING FROM EACH SOURCE CATEGORY)

SOURCE OF RADIOACTIVITY	<u>PERCENT OF WASTE VOLUME SHIPPED</u>
☐ NUCLEAR REACTOR	_____
☐ NEUTRON GENERATOR	_____
☐ CYCLOTRON OR SYNCHROTRON	_____
☐ SEALED SOURCE	_____
☐ UNSEALED RADIOACTIVE MATERIAL	_____
☐ NATURAL ORES OR MILL TAILINGS	_____
☐ OTHER (SPECIFY) _____	_____
	100%

IF YOU DO NOT SHIP RADIOACTIVE WASTES, YOU HAVE COMPLETED THE QUESTIONNAIRE. THANK YOU. IF YOU DO SHIP, PLEASE CONTINUE WITH THE FOLLOWING QUESTIONS.

PART IV - PHYSICAL FORM OF SHIPPED WASTES

(CHECK EACH FORM OF WASTE WHICH YOU SHIP AND INDICATE THE PERCENTAGE OF YOUR TOTAL SHIPPED WASTE VOLUME REPRESENTING EACH FORM)

	<u>PERCENT OF WASTE VOLUME SHIPPED</u>
☐ DRY SOLIDS, TRASH, IRRADIATED COMPONENTS	_____
☐ SOLIDIFIED OR ABSORBED LIQUIDS, SOLID SLUDGES, SPENT RESINS, FILTER SLUDGES OR EVAPORATOR BOTTOMS	_____
☐ ANIMAL CARCASSES OR OTHER BIOLOGICAL WASTE	_____
☐ SEALED SOURCES	_____
☐ OTHER (SPECIFY) _____	_____
	100%

DOES WASTE CONTAIN ANY MATERIAL WHICH IS POTENTIALLY:

<u>YES</u>	<u>NO</u>	
☐	☐	COMBUSTIBLE
☐	☐	EXPLOSIVE
☐	☐	CHEMICALLY TOXIC

WHAT SHIPPING CONTAINERS DO YOU USE?

☐ 55 GALLON STEEL DRUMS

☐ 30 GALLON STEEL DRUMS

☐ OTHER (SPECIFY) _____

WHAT ON-SITE PROCESSING OF WASTE DO YOU EMPLOY?

☐ NONE

☐ MECHANICAL COMPACTION

☐ INCINERATION

☐ SOLIDIFICATION OR EVAPORATION OF LIQUIDS

☐ ABSORPTION OF LIQUIDS

☐ OTHER (SPECIFY) _____

Figure 5-1 (Concluded)

PART V - WASTE QUANTITY

INDICATE TOTAL YEARLY VOLUME (IN CUBIC FEET) OF WASTE SHIPPED TO A COMMERCIAL DISPOSAL FACILITY.

	<u>CUBIC FEET SHIPPED</u>
ACTUAL SHIPPED IN 1977	_____
ACTUAL SHIPPED IN 1978	_____
ACTUAL SHIPPED IN 1979	_____

INDICATE TOTAL YEARLY VOLUME (IN CUBIC FEET) OF WASTE PROJECTED TO BE GENERATED WHICH WILL BE SHIPPED.

	<u>CUBIC FEET GENERATED</u>
ESTIMATED GENERATION IN 1980	_____
ESTIMATED GENERATION IN 1985	_____
ESTIMATED GENERATION in 1990	_____

INDICATE THE QUANTITY OF RADIOACTIVITY (IN CURIES) SHIPPED TO A COMMERCIAL FACILITY IN THE YEARS 1977, 1978 AND 1979.

ISOTOPE	QUANTITY SHIPPED (CURIES) IN:		
	1977	1978	1979

FIGURE 5-2

TRANSMITTAL LETTER

September 18, 1980

To: All Radioactive Material License Holders in Wisconsin

Subject: Survey of Low-Level Radioactive Waste Disposal Practices

Dear Sir:

Maintaining free access to proper low-level radioactive waste disposal sites is becoming more difficult as existing disposal sites approach their capacity and restrictions are imposed which limit the total quantity of waste material being accepted. In order to assure future access to safe and economical disposal sites by users of radioactive material within Wisconsin, planning studies are being conducted.

NUS Corporation is conducting a survey of nuclear material licensees for the Department of Energy to ascertain the volume and nature of waste they generate. Several surveys on low-level radioactive waste have been conducted over the last few years. These surveys either did not cover all organizations which have a license to use radioactive material or the results from the surveys were not of a nature which allowed them to be extrapolated to the entire nation. At the present time there is not an available data base for the long-range projections necessary for proper planning of future low-level waste disposal facilities. Therefore, the results of this study by NUS will provide a necessary tool for the effective management of low-level radioactive waste within Wisconsin.

Your organization has been sent the enclosed questionnaire because of your current license for possession of radioactive materials. If you do not dispose of radioactive waste materials, please return in the enclosed envelope the questionnaire with that information.

Prompt completion of the attached survey form will enable NUS to generate such a data base. Your cooperation will assist both your organization and other users of radioactive materials in maintaining continued access to appropriate waste disposal facilities.

If you have any questions on the attached survey form or its use, please feel free to contact me at (301) 948-7010, Ext. 619.

Sincerely,

Lawrence J. Perez, Jr.
Project Manager

Enclosures

6.0 USE OF COMMERCIAL LOW-LEVEL WASTE DISPOSAL FACILITIES

In the State of Wisconsin, a total of 229 potential shippers of low-level radioactive waste were identified. These potential shippers were sent, by direct mail, questionnaires concerning their waste management practices. The respondent was identified as either a medical, educational, industrial, power reactor, or governmental type facility. All but 7 of the potential shippers identified for the State of Wisconsin were able to be grouped into one of these classifications of facilities. Section 2.0 presents the number of respondents using various disposal methods and the source of radioactivity used at facilities. Table 2-1 indicates that 16.5 percent (19 facilities) of the respondents use commercial low-level waste facilities. The following subsections present a summary of the characteristics and quantity of wastes disposed of by these 19 facilities.

6.1 RESPONSE TO SURVEY

Table 6-1 presents, by facility type, the number of potential shippers surveyed, the total number and percentage of responses obtained, and a breakdown of responses by degree of response. If a facility provided at least the facility type and method of disposal, the answers were considered a response. If no information was obtained, the type of facility was determined by the facility name. The responses were further categorized by degree of response into three groups. Group 1 responses were responses in which all appropriate information requested was provided (see Figure 5-1). Group 2 responses provided only information on the type of facility, disposal method, and quantity of waste. Group 3 responses included only information on the type of facility and the disposal method.

Fifty percent of all potential shippers identified provided some degree of response. The percent response varied from 28.0 percent for governmental facilities to 100.0 percent for power reactor facilities. Of the respondents, 77.4 percent provided all requested information.

It should be noted that of the 114 potential shippers (out of 229) which did not provide any information, many of these may in fact be shippers. A decline to answer the questionnaire can be reasonably assumed to indicate that they in fact do ship wastes, since the only response and effort required if they do not ship wastes

was to return the form. Accordingly, there is a high potential that the percent response to the survey from shippers may be closer to 14.3 percent (19 shipper respondents out of a total of 133 shippers or nonrespondents) rather than the 50 percent response from all potential shippers.

6.2 SOURCES OF SHIPPED WASTE

6.2.1 Distribution by Type of Facilities Shipping Wastes

Table 6-2 presents the distribution of numbers of facilities shipping wastes by major type of facility and by subgroup within each major type. In terms of number of facilities shipping wastes, medical facilities account for about 37 percent of all shippers.

6.2.2 Origin of Radioactivity Resulting in Shipped Wastes

The origin of radioactivity resulting in shipped waste was grouped into four categories: nuclear reactor operation, purchased as sealed sources, purchased as unsealed radioactivity, and natural ores. Table 6-3 presents the distribution of number of facilities shipping wastes according to type of facility and origin of radioactivity. It should be noted that more than one origin may be appropriate for a given facility. Therefore, the total number of origins presented in Table 6-3 is greater than the total number of shippers of low-level waste. Approximately 68 percent of the facilities shipping waste obtain the radioactivity as unsealed radioactive material.

6.3 VOLUME OF SHIPPED WASTE

Volumes of low-level wastes shipped to commercial disposal facilities were provided by 13 facilities of the 19 respondents that indicated they shipped wastes. These 13 facilities represent 9.8 percent of the 133 potential shippers within the state (19 respondents and 114 non-respondents). Table 6-4 presents volumes of shipped wastes for the years 1977, 1978, and 1979 for each type of facility and for subgroups of each facility type.

The three operating power reactors within Wisconsin (Point Beach, Kewaunee, and LaCrosse stations) generate the vast majority of waste volume, accounting for about 90 percent of all shipped waste in 1977, 91 percent in 1978, and 92 percent in 1979.

Table 6-5 shows the volumes of wastes projected by the respondents to be shipped in the years 1980, 1985, and 1990. If a respondent only provided a projection for 1980 (or 1980 and 1985), the furthest projection in time given was assumed to apply for all subsequent time periods. The data shows that over the next 10 years the total waste shipped will remain constant for facilities currently shipping. Medical facilities wastes are projected to halve, while educational facilities wastes are expected to double. One additional power reactor is planned for operation within the next 10 years (Haven station).

6.4 ACTIVITY OF SHIPPED WASTE

Table 6-6 presents quantity of activity in the waste shipped for the years 1977, 1978, and 1979 for each type of facility. As with the volumes shipped, power reactors accounted for the vast majority of activity shipped, being as high as 99.1 percent in 1977. Two large curie shipments of tritium originated from the University of Wisconsin. The year-to-year variation from the largest shippers is very large and thus the yearly totals do not indicate any discernible trend in quantity of activity being shipped.

Table 6-7 presents the distribution of activity by shipped radionuclide. A large portion of the respondents did not provide this information, indicating only "mixtures." Less than 0.1, 1.0, and 45 percent of the reported shipped activity was identified by radionuclide for the years 1977, 1978, and 1979, respectively.

6.5 PHYSICAL CHARACTERISTICS OF SHIPPED WASTE

Onsite processing of low-level waste may be performed to either reduce the volume of the waste (compaction, incineration) or to remove free liquid (solidification, evaporation, absorption). Table 6-8 shows the number of facilities using these methods. Six of the 17 respondents indicated they used mechanical compaction or

incineration for volume reduction. Approximately 60 percent of the facilities use absorption to handle free liquids.

Table 6-9 presents the type of shipping container used onsite to package waste for transport to disposal facilities. Most facilities use either 55-gallon or 30-gallon steel drums. However, about 12 percent of the facilities (shown under "other" column) use simply cardboard boxes for small volumes of waste which are packaged in drums by the transporter.

Shipped waste was categorized as either dry, moist, biological, sealed, or other. Table 6-10 presents the number of facilities shipping waste in any of these categories.

Table 6-11 indicates the number of facilities shipping wastes with potential non-radiological hazardous characteristics classified as combustible, explosive and/or toxic.

TABLE 6-1

RESPONSE TO DIRECT MAIL SURVEY

Type of facility	Number of licenses	Number of respondents	Percent response	Degree of Response								
				Group 1			Group 2			Group 3		
				Number	Percent of licenses	Percent of respondents	Number	Percent of licenses	Percent of respondents	Number	Percent of licenses	Percent of respondents
Medical	94	47	50.0	37	16.2	32.2	7	3.1	6.1	3	1.3	2.6
Educational	18	10	55.6	6	2.6	5.2	3	1.3	2.6	1	0.4	0.9
Industrial	93	51	54.8	43	18.8	37.4	8	3.5	7.0	0	0.0	0.0
Power Reactor	3	3	100.0	1	0.4	0.9	2	0.9	1.7	0	0.0	0.0
Governmental	14	4	28.6	2	0.9	1.7	0	0.0	0.0	2	0.9	1.7
Unknown	7	-	-	-	-	-	-	-	-	-	-	-
TOTAL	229	115	50.2	89	38.9	77.4	20	8.7	17.4	6	2.6	5.2

TABLE 6-2

TYPE OF FACILITIES SHIPPING LOW-LEVEL WASTE

Type of Facility		Number of facilities shipping	Percent of all shippers	Percent of facilities type
Facility	Subgroup			
Medical	Hospital	4	21.1	57.1
	Pharmaceutical	1	5.3	14.3
	Research/Education	1	5.3	14.3
	Other	<u>1</u>	<u>5.3</u>	<u>14.3</u>
	Total	7	36.8	100.0
Educational	University	3	15.8	100.0
	High School	0	0.0	0.0
	Other	<u>0</u>	<u>0.0</u>	<u>0.0</u>
	Total	3	15.8	100.0
Industrial	Product Use	2	10.5	50.0
	Process Control	1	5.3	25.0
	Other	<u>1</u>	<u>5.3</u>	<u>25.0</u>
	Total	4	21.1	100.0
Power Reactor	Total	3	15.8	100.0
Governmental	Federal	1	5.3	50.0
	Military	0	0.0	0.0
	State	1	5.3	50.0
	Local	<u>0</u>	<u>0.0</u>	<u>0.0</u>
	Total	2	10.5	100.0
TOTAL		19	100.0	100.0

TABLE 6-3

ORIGIN OF RADIOACTIVITY RESULTING IN SHIPPED WASTES

Type of facility	Number of respondents	Nuclear reactor		Sealed sources		Unsealed radioactive material		Ores	
		Number of sources*	Percent of all shippers	Number of sources*	Percent of all shippers	Number of sources*	Percent of all shippers	Number of sources*	Percent of all shippers
Medical	7	0	0.0	2	10.5	6	31.6	0	0.0
Educational	3	1	5.3	2	10.5	3	15.8	1	5.3
Industrial	4	0	0.0	3	15.8	3	15.8	0	0.0
Power Reactor	3	3	15.8	0	0.0	0	0.0	0	0.0
Governmental	2	0	0.0	2	10.5	1	5.3	0	0.0
TOTAL	19	4	21.1	9	47.4	13	68.4	1	5.3

*The total of "number of sources" exceeds the total number of respondents due to facilities generating waste from several sources.

TABLE 6-4
VOLUME OF SHIPPED WASTE

Type of Facility Facility Subgroup		Number of respon- dents	Volume Shipped					
			1977		1978		1979	
			Cubic meters	Percent of total	Cubic meters	Percent of total	Cubic meters	Percent of total
Medical	Hospital		14.92	5.0	21.97	7.2	22.54	4.7
	Pharmaceutical		0.00	0.0	0.00	0.0	0.00	0.0
	Research/Education	—	0.65	0.3	0.65	0.2	2.12	0.4
	Total	4	15.57	6.2	22.63	7.4	24.66	5.1
Educational	University		6.65	2.7	3.52	1.2	10.62	2.2
	High School	—	6.00	0.0	0.00	0.0	0.00	0.0
	Total	2	6.65	2.7	3.52	1.2	10.62	2.2
Industrial	Product Use		1.13	0.5	0.38	0.3	1.10	0.2
	Process Control		0.00	0.0	0.00	0.0	0.28	0.1
	Other	—	0.85	0.3	0.35	0.3	0.85	0.2
	Total	4	1.98	0.8	1.73	0.6	2.24	0.5
Power Reactor	Total	3	227.24	90.4	278.44	90.9	442.96	92.2
Governmental	Total	0	—	—	—	—	—	—
TOTAL	—	13	251.45	100.0	306.42	100.0	480.48	100.0

TABLE 6-5

PROJECTED VOLUMES OF SHIPPED WASTE

Type of Facility		Number of respondents	Projected Volume (cubic meters)		
Facility	Subgroup		1980	1985	1990
Medical	Hospital	—	25.43	14.72	9.91
	Pharmaceutical		0.42	0.65	0.85
	Research/Education		<u>2.63</u>	<u>2.63</u>	<u>2.63</u>
	Total	5	28.49	18.01	13.39
Educational	University	—	12.97	19.68	23.08
	High School		<u>0.00</u>	<u>0.00</u>	<u>0.00</u>
	Total	3	12.97	19.68	23.08
Industrial	Product Use	—	1.13	1.73	2.83
	Process Control		0.00	0.00	0.00
	Other		<u>0.28</u>	<u>0.28</u>	<u>0.28</u>
	Total	4	1.42	2.01	3.11
Power Reactor	Total	2	271.84	271.84	271.84
Governmental	Federal	—	0.00	0.57	0.85
	Military		0.00	0.00	0.00
	State		0.23	0.23	0.23
	Local		<u>0.00</u>	<u>0.00</u>	<u>0.00</u>
	Total	2	0.23	0.79	1.08
TOTAL	--	16	314.94	312.34	312.51

TABLE 6-6

ACTIVITY OF SHIPPED WASTE

Type of Facility		Number of respon- dents	Activity Shipped					
			1977		1978		1979	
			Curies	Percent of total	Curies	Percent of total	Curies	Percent of total
Facility	Subgroup							
Medical	Hospital		0.13	0.0	0.14	0.0	0.24	0.0
	Pharmaceutical		0.00	0.0	0.00	0.0	0.00	0.0
	Research/Education		0.00	0.0	0.03	0.0	0.01	0.0
	Total	4	0.13	0.0	0.16	0.0	0.26	0.0
Educational	University		21.25	0.1	401.61	11.7	1,350.17	44.3
	High School		0.00	0.0	0.00	0.0	0.00	0.0
	Total	2	21.25	0.1	401.61	11.7	1,350.17	44.3
Industrial	Product Use		0.00	0.0	0.62	0.0	0.01	0.0
	Process Control		0.00	0.0	0.00	0.0	0.01	0.0
	Other		0.00	0.0	0.04	0.0	0.01	0.0
	Total	4	0.00	0.0	0.66	0.0	0.01	0.0
Power Reactor	Total	3	15,534.00	99.9	3,042.00	88.3	1,700.00	55.73
Governmental	Total	0	-	-	-	-	-	-
TOTAL	--	13	15,555.30	100.0	3,444.43	100.0	3,050.44	100.0

Table 6-7

RADIONUCLIDES IN SHIPPED WASTES

Activity (curies)																		
Isotope	Total			Medical			Educational			Industrial			Power Reactors			Governmental		
	1977	1978	1979	1977	1978	1979	1977	1978	1979	1977	1978	1979	1977	1978	1979	1977	1978	1979
H-3	8.13E-1	4.01E+2	1.35E+3	1.10E-2	2.40E-2	2.60E-2	8.02E-1	4.01E+2	1.35E+3	1.00E-5	1.21E-3	1.00E-5	0.0	0.0	0.0	0.0	0.0	0.0
C-14	4.00E-2	3.92E-3	4.79E-2	0.00E-1	3.00E-1	1.10E-2	4.00E-2	0.00E-1	3.60E-2	5.00E-5	9.20E-4	9.00E-4	0.0	0.0	0.0	0.0	0.0	0.0
Na-22	0.00E-1	0.00E-1	5.75E-3	0.0	0.0	0.0	0.00E-1	0.00E-1	5.75E-3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
P-32	1.00E-5	1.00E-4	3.75E-4	0.0	0.0	0.0	0.00E-1	0.00E-1	2.75E-4	1.00E-5	1.00E-4	1.00E-4	0.0	0.0	0.0	0.0	0.0	0.0
S-35	0.00E-1	0.00E-1	2.48E-2	0.0	0.0	0.0	0.00E-1	0.00E-1	2.48E-2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cl-36	0.00E-1	0.00E-1	1.61E-3	0.0	0.0	0.0	0.00E-1	0.00E-1	1.61E-3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ca-45	2.00E-3	0.00E-1	1.70E-2	0.0	0.0	0.0	2.00E-3	0.00E-1	1.70E-2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sc-46	0.00E-1	0.00E-1	2.56E-3	0.0	0.0	0.0	0.00E-1	0.00E-1	2.56E-3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cr-51	5.00E-3	2.10E-2	3.89E-2	5.00E-3	2.00E-2	3.60E-2	0.00E-1	0.00E-1	2.90E-3	0.00E-1	1.00E-3	0.00E-1	0.0	0.0	0.0	0.0	0.0	0.0
Cr-57	0.00E-1	1.60E-2	0.00E-1	0.0	0.0	0.0	0.0	0.0	0.0	0.00E-1	1.60E-2	0.00E-1	0.0	0.0	0.0	0.0	0.0	0.0
Fe-55	0.00E-1	0.00E-1	1.25E-3	0.0	0.0	0.0	0.00E-1	0.00E-1	1.25E-3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Fe-59	0.00E-1	0.00E-1	7.74E-3	0.0	0.0	0.0	0.00E-1	0.00E-1	7.74E-3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Co-57	0.00E-1	0.00E-1	1.93E-3	0.0	0.0	0.0	0.00E-1	0.00E-1	1.93E-3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cr-60	0.00E-1	0.00E-1	1.00E-2	0.0	0.0	0.0	0.0	0.0	0.0	0.00E-1	0.00E-1	1.00E-2	0.0	0.0	0.0	0.0	0.0	0.0
Ni-63	0.00E-1	0.00E-1	3.70E-2	0.0	0.0	0.0	0.00E-1	0.00E-1	3.70E-2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Zn-65	2.00E-3	2.50E-3	3.18E-4	0.0	0.0	0.0	2.00E-3	0.00E-1	3.18E-4	0.00E-1	2.50E-3	0.00E-1	0.0	0.0	0.0	0.0	0.0	0.0
Se-75	0.00E-1	0.00E-1	1.93E-3	0.0	0.0	0.0	0.00E-1	0.00E-1	1.93E-3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ru-86	0.00E-1	0.00E-1	1.16E-4	0.0	0.0	0.0	0.00E-1	0.00E-1	1.16E-4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sr-85	0.00E-1	0.00E-1	1.51E-3	0.0	0.0	0.0	0.00E-1	0.00E-1	1.51E-3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Si-90	0.00E-1	0.00E-1	2.06E-2	0.0	0.0	0.0	0.00E-1	0.00E-1	2.06E-2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ni-95	0.00E-1	0.00E-1	1.90E-6	0.0	0.0	0.0	0.00E-1	0.00E-1	1.90E-6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sm-113	0.00E-1	0.00E-1	1.18E-4	0.0	0.0	0.0	0.00E-1	0.00E-1	1.18E-4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I-125	8.00E-3	2.60E-2	1.69E-2	8.00E-3	6.00E-3	1.60E-2	0.00E-1	0.00E-1	8.74E-4	0.00E-1	2.00E-2	0.00E-1	0.0	0.0	0.0	0.0	0.0	0.0
Cm-134	2.00E-3	0.00E-1	0.00E-1	0.0	0.0	0.0	2.00E-3	0.00E-1	0.00E-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ca-137	0.00E-1	8.00E-2	3.60E-4	0.0	0.0	0.0	0.00E-1	0.00E-1	3.60E-4	0.00E-1	8.00E-1	0.00E-1	0.0	0.0	0.0	0.0	0.0	0.0
Ba-133	0.00E-1	0.00E-1	2.96E-3	0.0	0.0	0.0	0.00E-1	0.00E-1	2.96E-3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Eu-152	0.00E-1	0.00E-1	5.20E-5	0.0	0.0	0.0	0.00E-1	0.00E-1	5.20E-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Zr-154	0.00E-1	0.00E-1	1.12E-3	0.0	0.0	0.0	0.00E-1	0.00E-1	1.12E-3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
W-185	0.00E-1	0.00E-1	2.50E-4	0.0	0.0	0.0	0.00E-1	0.00E-1	2.50E-4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Hg-203	0.00E-1	0.00E-1	7.34E-4	0.0	0.0	0.0	0.00E-1	0.00E-1	7.34E-4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tl-204	1.00E-3	0.00E-1	0.00E-1	0.0	0.0	0.0	1.00E-3	0.00E-1	0.00E-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pb-210	0.00E-1	0.00E-1	1.90E-3	0.0	0.0	0.0	0.00E-1	0.00E-1	1.90E-3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ra-226	0.00E-1	5.50E-2	2.00E-6	0.0	0.0	0.0	0.00E-1	0.00E-1	2.0E-6	0.00E-1	5.50E-1	0.00E-1	0.0	0.0	0.0	0.0	0.0	0.0
Am-241	0.00E-1	4.80E-1	8.11E-5	0.0	0.0	0.0	0.00E-1	0.00E-1	8.11E-5	0.00E-1	4.80E-1	0.00E-1	0.0	0.0	0.0	0.0	0.0	0.0
Mixtures	1.56E+4	3.04E+3	1.70E+3	1.11E-1	1.10E-1	1.70E-1	2.04E+1	6.08E-1	0.00E-1	0.0	0.0	0.0	1.55E+4	3.04E+3	1.70E+3	0.0	0.0	0.0
Total	1.56E+4	3.44E+3	3.05E+3	1.35E-1	1.63E-1	2.59E-1	2.12E+1	4.02E+2	1.35E+3	7.00E-5	6.57E-1	1.10E-2	1.55E+4	3.04E+3	1.70E+3	0.0	0.0	0.0

TABLE 6-8

ONSITE PROCESSING OF SHIPPED WASTE

Type of Facility	Number of respondents	None		Mechanical Compaction		Incineration		Solidification/Evaporation		Absorption	
		Number* using	Percent of total respondents	Number* using	Percent of total respondents	Number* using	Percent of total respondents	Number* using	Percent of total respondents	Number* using	Percent of total respondents
Medical	5	0	0.0	1	5.9	0	0	2	11.8	5	29.4
Educational	3	0	0.0	1	5.9	1	5.9	2	11.8	3	17.6
Industrial	4	2	11.8	0	0.0	1	5.9	2	11.8	1	5.9
Power Reactor	3	0	0.0	3	17.6	0	0.0	2	11.8	0	0.0
Governmental	2	1	5.9	0	0.0	0	0.0	0	0.0	1	5.9
TOTAL	17	3	17.6	5	29.4	2	11.8	8	47.1	10	58.8

*The total of "number using" exceeds the total number of respondents due to the use of several practices at each facility.

TABLE 6-9

SHIPPING CONTAINER USED

Type of Facility	Number of respondents	55-gal. drums		30-gal. drums		Others	
		Number*	Percent of total respondents	Number*	Percent of total respondents	Number*	Percent of total respondents
Medical	5	5	31.3	0	0.0	1	6.3
Educational	3	3	18.8	1	6.3	0	0.0
Industrial	4	4	25.0	3	18.8	0	0.0
Power Reactor	2	2	12.5	0	0.0	1	6.3
Governmental	2	2	12.5	1	6.3	0	0.0
TOTAL	16	16	100.0	5	31.3	2	12.5

*The total of "number using" exceeds the total number of respondents due to several types of containers being used at some facilities.

TABLE 6-10

PHYSICAL FORM OF SHIPPED WASTE

Type of facility	Number of respondents	Dry		Moist/potential free liquid		Biological waste		Sealed sources	
		Number of facilities	Percent of total respondents	Number of facilities	Percent of total respondents	Number of facilities	Percent of total respondents	Number of facilities	Percent of total respondents
Medical	5	5	29.4	5	29.4	2	11.8	1	5.9
Educational	3	3	17.6	2	11.8	1	5.9	1	5.9
Industrial	4	2	11.8	2	11.8	0	0.0	2	11.8
Power Reactor	3	3	17.6	3	17.6	0	0.0	0	0.0
Governmental	2	2	11.8	1	5.9	2	11.8	1	5.9
TOTAL	17	15	88.2	13	76.5	5	29.4	5	29.4

*The total of "number of facilities" exceeds the total number of respondents due to waste being in several forms at some facilities.

TABLE 6-11

ORIGIN OF RADIOACTIVITY RESULTING IN SHIPPED WASTES

Type of facility	Number of respondents	Type of Potential Hazard					
		Combustible		Explosive		Toxic	
		Number of sources*	Percent of all shippers	Number of sources*	Percent of all shippers	Number of sources*	Percent of all shippers
Medical	5	5	31.3	0	0.0	4	25.0
Educational	3	2	12.5	0	0.0	3	18.8
Industrial	4	3	18.8	0	0.0	1	6.3
Power Reactor	2	2	12.5	0	0.0	1	6.3
Governmental	2	1	6.3	0	0.0	1	6.3
TOTAL	16	13	81.3	0	0.0	10	62.5

APPENDIX A

RADIOACTIVE MATERIAL LICENSEES
IN THE STATE OF WISCONSIN

EXPLANATION OF LIST OF LICENSEES

Column 1: Name and address as provided by Nuclear Regulatory Commission

Column 2: N indicates questionnaire was not delivered as evidenced by package being returned by postal service

Y indicates questionnaire was mailed and not returned by the postal service

Column 3: N indicates that package was delivered but the licensee did not respond

1 indicates the licensee did respond and provided all appropriate information

2 indicates the licensee did respond but provided only information on parts I, II, and V of the survey form

3 indicates the licensee did respond but provided only information on parts I and II of the survey form

- indicates questionnaire was not delivered

Column 4: M = Medical
E = Educational
I = Industrial
P = Power Reactor
G = Governmental
U = Unknown

Column 5: Y indicates the licensee ships wastes to a commercial disposal site

N indicates the licensee does not ship wastes

- indicates information not available

Licensee Name and Address	Questionnaire		Type of Facility	Ships Waste	Comments
	Delivered	Response			
Wisconsin Department of Agriculture 4702 University Avenue Madison WI 53705	Y	N	G	-	
Allen-Bradley Company 1201 South Second Street Milwaukee WI 53204	Y	N	I	-	
Allis-Chalmers Process Research and Test Center 9180 Fifth Avenue Oak Creek WI 53154	Y	N	I	-	
American National Red Cross Green Bay Location 2131 Deckner Avenue Green Bay WI 54302	Y	I	M	N	
American Red Cross Badger Regional Red Cross Blood Center 1202 Ann Street Madison WI 53701	Y	I	M	N	
Appleton Memorial Hospital Radioisotope Service 1818 North Meade Street Appleton WI 54911	Y	N	M	-	
Appleton Department of Public Works P. O. Box 1857 Appleton WI 54913	Y	N	G	-	
Appleton Papers, Inc. P. O. Box 359 Appleton WI 54911	Y	N	I	-	
Appleton Papers, Inc. 825 E. Wisconsin Avenue Appleton WI 54911	Y	I	I	N	
Associated Analysts 11515 West North Avenue Milwaukee WI 53226	Y	I	I	N	
Babcock and Wilcox Company 3839 W. Burnham Street Milwaukee WI 53246	Y	N	I	-	
Badger Laboratories & Engineering 1110 South Oneida Street Appleton WI 54911	Y	2	I	N	
Beatrice Foods Clover Cream Dairy Division 211 East Depot Street Marshfield WI 54449	Y	N	I	-	
Becher-Hoppe Engineers, Inc. 1130 Grand Avenue Schofield WI 54476	Y	N	I	-	

Licensee Name and Address	Questionnaire		Type of Facility	Ships Waste	Comments
	Delivered	Response			
Bellin Memorial Hospital 744 S. Webster Avenue Green Bay, WI 54301	Y	N	M	-	
Beloit College Department of Physics & Astronomy Beloit WI 53512	Y	I	E	-	
Beloit Corporation Foundry Division 3rd Street and St. Lawrence Avenue Beloit WI 53511	Y	N	I	-	
Beloit Memorial Hospital 1969 West Hart Road Beloit WI 53511	Y	N	M	-	
Beloit Memorial Hospital - Radiology Department 1969 West Hart Road Beloit WI 53511	Y	N	M	-	
Berlin Memorial Hospital 225 Memorial Drive Berlin WI 54923	Y	N	M	-	
Bio-Resources Incorporated 212 North Bassett Street Madison WI 53703	Y	N	I	-	
Bio-Technical Resources, Inc. 7th & Marshall Streets Manitowoc WI 54220	Y	N	I	-	
Bjorksten Research Laboratories, Inc. P. O. Box 9444 Madison WI 53715	Y	N	I	-	
Blood Center of Southeastern Wisconsin, Inc. Research Department 763 N. 18th Street Milwaukee WI 53233	Y	N	M	-	
Briggs & Stratton Corporation 3300 N. 124th Street Milwaukee WI 53201	Y	N	I	-	
Bucyrus-Erie Co. Foundry Quality Control Department 1100 Milwaukee Avenue South Milwaukee WI 53172	Y	N	I	-	
Calumet Memorial Hospital, Inc. 614 Memorial Drive Chilton WI 53014	Y	I	M	N	
Camp Dresser and McKee, Inc. Environmental Sciences Division 6132 West Fond Du Lac Avenue Milwaukee WI 53218	Y	N	I	-	

Licensee Name and Address	Questionnaire		Type of Facility	Ships Waste	Comments
	Delivered	Response			
J. I. Case Company Components Division 25th and Mead Streets Racine WI 53403	Y	N	I	-	
Central Wisconsin Colony & Training School 317 Knutson Drive Madison WI 53704	Y	3	G	Y	
Cito Products, Inc. 1002 South 12th Street Watertown WI 53094	Y	N	I	-	
Clinic of Internal Medicine 6745 W. Wells Street Milwaukee WI 53213	Y	N	M	-	
Columbia Hospital Department of Radiation Therapy 3321 N. Maryland Ave. Milwaukee WI 53211	Y	N	M	-	
Colt Industries Operating Corp. Fairbanks Morse Engine Division 701 Lawton Avenue Beloit WI 53511	Y	I	I	N	
Community Memorial Hospital Town Hall Road Menomonie Falls WI 53051	Y	N	M	-	
Conesco, Inc. 611 North Road Medford WI 54451	Y	I	I	N	
Consolidated Papers, Inc. Research & Development, Paper Mills & Pulp Mill P. O. Box 50 Wisconsin Rapids WI 54494	Y	N	I	-	
Consultant Physicians in Pathology S. C. 130 Warren Street Beaver Dam WI 53916	Y	N	M	-	
Davis-Duehr Eye Association 1025 Regent Street Madison WI 53715	Y	2	M	N	
Deaconess Hospital 620 North 19th Street Milwaukee WI 53233	Y	I	M	N	
Del Monte Corporation, Plant #116 John Street Markesan WI 53946	Y	I	I	N	
City of De Pere 335 S. Broadway De Pere WI 54115	Y	N	G	-	

Licensee Name and Address	Questionnaire		Type of Facility	Ships Waste	Comments
	Delivered	Response			
Donohue and Associates, Inc. 4738 North 40th Street Shaboygan WI 53081	Y	1	I	N	
Elmbrook Memorial Hospital 19333 West North Avenue Brookfield WI 53005	Y	1	M	N	
Envirex, Inc. 4701 West Greenfield Avenue Milwaukee WI 53214	Y	N	I	-	
Family Hospital 2711 West Wells Street Milwaukee WI 53208	Y	1	M	N	
Fort Atkinson Memorial Hospital 611 East Sherman Avenue Fort Atkinson WI 53538	Y	2	M	N	
Fort Howard Paper Company 1919 South Broadway Green Bay WI 54305	Y	N	I	-	
Foundation Hospital of Milwaukee 3330 West Wells Street Milwaukee WI 53208	Y	N	M	-	
Froedtert Malt Corporation 3830 West Grant Street Milwaukee WI 53215	Y	1	I	N	
GAF Corporation Loading Department Krelim Road Pembine WI 54156	Y	N	I	-	
Gamma Products Company Route 1, Box 195 Rice Lake WI 54868	Y	N	I	-	
General Electric Company Medical Systems Department 3000 N. Grandview Blvd. Waukesha WI 53186	Y	1	I	Y	
George S. Parker Senior High School Parker Senior High Science Dept. 3125 Mineral Point Ave. Janesville WI 53545	Y	2	E	N	
Gilbert Paper Company 430 Ahnaip St. Menasha WI 54952	Y	N	I	-	
Giles Engineering Associates 2660 Broadway - Suite 4D Waukesha WI 53186	Y	N	I	-	

Licensee Name and Address	Questionnaire		Type of Facility	Ships Waste	Comments
	Delivered	Response			
Grede Foundries, Inc. Metallurgical Department 1320 South First Street Milwaukee WI 53204	Y	N	I	-	
Grede Foundries, Incorporated Metallurgical Dept. 1320 S. First Street Milwaukee WI 53204	Y	2	I	N	
Grey Iron Foundry, Inc. 1501 S. 83rd St. West Allis WI 53214	Y	N	I	-	
Grunau Company, Inc. P. O. Box 479 Milwaukee WI 53201	Y	N	U	-	
Gundersen Clinic, Ltd. 1836 South Avenue La Crosse WI 54601	Y	I	M	Y	
Hartford Memorial Hospital, Inc. Radiology-Nuclear Medicine 1032 East Summer Street Hartford WI 53027	Y	N	M	-	
State of Wisconsin Dept. of Health & Social Services Occupational Health Section Stovall Bldg. - Rooms 403 - 465 PER Madison WI 53706	Y	N	G	-	
State of Wisconsin Dept. of Health & Social Services Division of Health Section O Wilson Street State Office Building Madison WI 53701	Y	N	G	-	
Holy Family Hospital 535 Hospital Road New Richmond WI 54017	Y	N	M	-	
Holy Family Hospital Dept. of Radiology 21st & Western Avenue Manitowoc WI 54220	Y	I	M	N	
Hopkins Agricultural Chemical Co. 537 Atlas Ave P. O. Box 7532 Madison WI 53707	Y	N	I	-	
Hovelsrud Consulting Associates 135 S. Main Street Richland Center WI 53581	Y	I	I	N	
Howard Young Medical Center P. O. Box 470 Woodruff WI 54568	Y	I	M	N	
Howmet Corporation Crucible Steel Casting Division 2850 S. 20th Street Milwaukee WI 53215	Y	I	I	N	

Licensee Name and Address	Questionnaire		Type of Facility	Ships Waste	Comments
	Delivered	Response			
Institute of Paper Chemistry Organic Chemistry Section 1043 East South River Street Appleton WI 54911	Y	I	E	N	
Department of the Interior Fish and Wildlife Service National Fishery Research Laboratory P. O. Box 818 La Cross WI 54601	Y	3	G	Y	
Iroquois Foundry Company P. O. Box 98 Browntown WI 53522	Y	2	I	N	
Jackson County Iron Company Black River Falls Mine P. O. Box 192 Black River Falls WI 54615	Y	I	I	N	
S. C. Johnson & Son, Inc. 1525 Howe Street Racine WI 54303	Y	I	I	N	
Department of Justice Crime Laboratory Div. 4706 University Avenue Madison WI 53705	Y	N	G	-	
Department of Justice Wisconsin Regional Crime Laboratory 15725 W. Ryerson Road New Berlin WI 53151	Y	N	G	-	
Kenosha Health Department Laboratory Municipal Building 625 52nd Street Kenosha WI 53140	Y	I	G	N	
Kenosha Hospital Nuclear Medicine Department 6308 Eighth Avenue Kenosha WI 53140	Y	N	M	-	
Krause Milling Company Research and Development Sanitation Dept. 4222 W. Burnham Street Milwaukee WI 53246	Y	2	I	N	
Kremers-Urban Company 5600 W. County Line Road Mequon WI 53092	Y	2	M	N	
Lakehead Pipeline Company, Inc. 3025 Tower Avenue Superior WI 54880	Y	N	I	-	
Lakeland Hospital P. O. Box 1002 Elkborn WI 53121	Y	I	M	N	
Lakeview Hospital Isotope Department 10010 W. Blue Mound Road Wauwatosa WI 53226	Y	N	M	-	

Licensee Name and Address	Questionnaire		Type of Facility	Ships Waste	Comments
	Delivered	Response			
Landglade County Memorial Hospital 112 East Fifth Avenue Antigo WI 54409	Y	N	M	-	
Lawrence University Biology and Physics Departments College Ave. and Park Ave. Appleton WI 54910	Y	N	E	-	
James Dennis Lorenze 2632 Smithfield Drive Madison WI 53719	Y	3	M	Y	
Luther Hospital 310 Chestnut Street Eau Claire WI 54701	Y	N	M	-	
Lutheran Hospital of Milwaukee, Inc. Radiology Department 2200 W. Kilbourn Avenue Milwaukee WI 53233	Y	N	M	-	
Madison General Hospital Department of Radiology 202 S. Park St. Madison WI 53715	Y	N	M	-	
Madison Industrial X-Ray, Inc. 2413 Huxley Street Madison WI 53704	Y	N	I	-	
Madison Metro. Sewerage Dist. 104 N. First Street Madison WI 53704	Y	I	I	N	
Manu-Tronics, Inc. 9115 26th Avenue Kenosha WI 53140	Y	N	U	-	
Marinette General Hospital 3100 Shore Drive Marinette WI 54143	Y	I	M	N	
Marquette University 1131 West Wisconsin Ave. Milwaukee WI 53233	Y	N	E	-	
Marshfield Clinic Radioisotope Department 1000 North Oak Avenue Marshfield WI 54449	Y	N	M	-	
Mathy Construction Company 915 Commercial Court, P. O. Box Omalaska WI 54450	Y	I	I	N	
Maynard Electric Steel Casting Company Industrial Radiography 2856 South 27th Street Milwaukee WI 53246	Y	I	I	N	

Licensee Name and Address	Questionnaire		Type of Facility	Ships Waste	Comments
	Delivered	Response			
McGraw-Edison Company 11131 Adams Road Franksville, WI 53126	Y	N	U	-	
McManus Inspection Service 8517 W. Kaul Avenue Milwaukee WI 53225	Y	I	I	N	
Mead and Hunt, Inc. 2320 University Avenue Madison WI 53705	Y	I	I	N	
Medical Associates 7950 Town Hall Road Menomonee Falls WI 53051	Y	N	M	-	
Medical College of Wisconsin 8701 Watertown Plank Road Milwaukee WI 53226	Y	N	M	-	
Memorial Hospital 301 Randolph Street Burlington WI 53105	Y	I	M	N	
Memorial Hospital at Oconomowoc 791 E. Summit Avenue Oconomowoc, WI 53066	Y	I	M	N	
Memorial Medical Center Nuclear Medicine 1615 Maple Lane Ashland WI 54806	Y	2	M	N	
Mercy Hospital Department of Pathology-Radiology 566 N. Washington Street Janesville WI 53545	Y	N	M	-	
Mercy Medical Center Department of Nuclear Medicine 631 Hazel Street Oshkosh WI 54901	Y	I	M	N	
Merrell-National Laboratories Division of Richardson-Merrell, Inc. 1707 E. North Avenue Milwaukee WI 53202	Y	3	M	Y	
Methodist Hospital of Madison 309 W. Washington Avenue Madison WI 53703	Y	N	M	-	
Mid States Laboratories, Inc. Laboratory Department P. O. Box 484 Hillsboro WI 54634	Y	I	M	N	
Mid-State Technical Institute 500 - 32nd Street, North Wisconsin Rapids WI 54494	Y	2	M	N	

Licensee Name and Address	Questionnaire		Type of Facility	Ships Waste	Comments
	Delivered	Response			
Midwest Inspection Service, Ltd. P.O. Box 3081 Green Bay WI 54304	Y	I	I	N	
Industrial Dynamics of Torrence California Miller Brewing Company 4000 W. State Street Milwaukee WI 53208	Y	I	I	N	
Miller Consulting Engineers 5308 South 12th St. Sheboygan WI 53081	Y	I	I	N	
Milprint, Inc. 300 Main Street De Pere WI 54115	Y	I	I	N	
Milwaukee Children's Hospital 750 N 18th Street Milwaukee WI 53233	Y	I	M	Y	
Milwaukee County Medical Complex Nuclear Medicine Division 8700 West Wisconsin Ave. Milwaukee WI 53226	Y	N	M	-	
Milwaukee County Office of Medical Examiner 821 West State Street Milwaukee WI 53233	Y	N	M	-	
City of Milwaukee Health Department 841 N. Broadway Milwaukee WI 53202	Y	N	G	-	
City of Milwaukee Sewage Commission P. O. Box 2079 Milwaukee WI 53201	Y	N	G	-	
Mount Sinai Hospital 950 North Twelfth Street Milwaukee WI 53201	Y	I	M	Y	
Wisconsin Department of Natural Resources Box 7921 Madison WI 53707	Y	N	G	-	
NCR Appleton Papers Division Locks Mill Combined Locks WI 54113	Y	N	I	-	
Neenah Foundry Company 2121 Brooks Avenue Neenah WI 54956	Y	2	I	N	
Neenah Joint School District 1275 Tullar Road Neenah WI 54956	Y	2	E	N	

Licensee Name and Address	Questionnaire		Type of Facility	Ships Waste	Comments
	Delivered	Response			
Nekoosa Papers Company 100 Wisconsin River Drive Port Edward WI 54469	Y	I	I	N	
New Berlin Memorial Hospital 13750 W. National Avenue New Berlin WI 53151	Y	N	M	-	
Nicolet Paper Company Main Avenue De Pere WI 54115	Y	N	I	-	
Norland Instruments Division of Norland Corporation Route 4, Norland Drive Fort Atkinson WI 53538	Y	I	I	N	
Northwest General Hospital 5310 W. Capitol Drive Milwaukee WI 53216	Y	N	M	-	
Northwest Wisconsin Nuclear, Inc. 1502 South Hastings Way Eau Claire WI 54701	Y	N	I	-	
Nuclear Cardiology Associates 2040 W. Wisconsin Avenue Milwaukee WI 53233	Y	I	M	N	
Nuclear Instruments Corporation 2345 W. Mill Road Milwaukee WI 53209	Y	N	I	-	
Nuclear Pharmacy, Inc. 933 N. Mayfair Wauwatosa WI 53226	Y	I	M	N	
Oster Division of Sunbeam 5055 North Lydell Avenue Milwaukee WI 53217	Y	N	I	-	
Owen Ayres & Associates, Inc. 4111 Schofield Avenue Schofield WI 54476	Y	N	U	-	
Owens-Illinois, Inc. County Hwy E Tomahawk WI 54487	Y	I	I	N	
Pabst Brewing Company 917 W. Juneau Avenue Milwaukee WI 53233	Y	I	I	N	
Pelton Casteel, Inc. 148 West Dewey Place Milwaukee WI 53207	Y	I	I	N	

Licensee Name and Address	Questionnaire		Type of Facility	Ships Waste	Comments
	Delivered	Response			
P-L Biochemicals, Inc. 1037 W. McKinley Avenue Milwaukee WI 53205	Y	I	I	Y	
Prairie Duchien Memorial Hospital, Inc. 705 East Taylor Street Prairie Duchien WI 53821	Y	N	M	-	
Presto Products, Inc. 670 North Perkins Street Appleton WI 54911	Y	N	I	-	
Procter & Gamble Paper Products Co. Fox River Plant 501 Eastman Ave. - P. O. Box 152 Green Bay WI 54305	Y	N	I	-	
Radiation Center 2716 Marshall Court Madison WI 53705	Y	2	I	N	
Raltech Scientific Services, Inc. Research & Development and the Endocrine Section P. O. Box 7545 - 3301 Kinsman BL Madison WI 53704	Y	I	I	Y	
Randolph-Pfaffenbach Eye Clinic, S. C. Randolph Eye Clinic, S. C. 1119 Marshall Street Manitowoc WI 54221	Y	N	M	-	
Refinery Products Corporation P. O. Box 278 Menomonee Falls WI 53051	Y	N	I	-	
Rexnord, Inc. 5101 W. Beloit Rd. Milwaukee WI 53214	Y	N	U	-	
Rhineland Paper Company Div. of Monarch Paper Corp., Inc. 515 W. Davenport St. Rhineland WI 54501	Y	N	I	-	
Riverview Hospital 410 Dewey Street Wisconsin Rapids WI 54494	Y	I	M	N	
Rupo Technical Services, Inc. 8018 S. 27th Street Oak Creek WI 53154	Y	N	I	-	
Joseph Schlitz Brewing Company 235 West Galena St. Milwaukee WI 53201	Y	N	I	-	
Sacred Heart Hospital Department of Radiological Sciences 900 West Clairemont Avenue Eau Claire WI 54701	Y	N	M	-	

Licensee Name and Address	Questionnaire		Type of Facility	Ships Waste	Comments
	Delivered	Response			
Seaman Nuclear Corporation 7315 South First Street Oak Creek WI 53154	Y	I	I	N	
Sheboygan Memorial Hospital 2629 North 7th Street Sheboygan WI 53081	Y	I	M	N	
Short-Elliott-Hendrickson, Inc. 705 Bay Street Chippewa Falls WI 54729	Y	I	I	N	
Soils and Engineering Services, Inc. Materials Testing Laboratory 1102 Stewart Street Madison WI 53715	Y	I	I	N	
Soiltest, Inc. Nuclear Instruments Division 524 South Boulevard Baraboo WI 53913	Y	I	I	N	
Soil Testing Services of Wisconsin, Inc. 540 Lambeau Street Green Bay WI 54303	Y	2	I	N	
St. Agnes Hospital 430 East Division Street Fond Du Lac WI 54935	Y	I	M	N	
St. Alphonsus Hospital 743 North Montgomery Street Port Washington WI 53074	Y	I	M	N	
St. Anthony Hospital 1004 North Tenth Street Milwaukee WI 43233	Y	N	M	-	
St. Catherine's Hospital Radiology Department 3556 Seventh Avenue Kenosha WI 53140	Y	I	M	N	
St. Clare Hospital 515 22nd Avenue Monroe, WI 53566	Y	N	M	-	
St. Clare Hospital 707 Fourteenth Street Baraboo WI 53913	Y	N	M	-	
St. Croix Valley Memorial Hospital, Inc. South Adams Street St. Croix Falls WI 54024	Y	N	M	-	
St. Elizabeth Hospital Radiotherapy Department 1506 S. Oneida Street Appleton WI 54911	Y	I	M	N	

Licensee Name and Address	Questionnaire		Type of Facility	Ships Waste	Comments
	Delivered	Response			
St. Francis Hospital Pathology and Radiology Departments 709 S. Tenth Street La Cross WI 54601	Y	N	M	-	
St. Francis Hospital 3237 South 16th Street Milwaukee WI 53215	Y	I	M	N	
St. Joseph Hospital 2661 County Trunk Chippewa Falls WI 54729	Y	I	M	N	
St. Joseph Hospital Department of Radiology and Pathology 5000 West Chambers Street Milwaukee WI 53210	Y	N	M	-	
St. Joseph's Hospital 611 St. Joseph Avenue Marshfield WI 54449	Y	N	M	-	
St. Luke's Hospital 2900 West Oklahoma Avenue Milwaukee WI 53215	Y	N	M	-	
St. Luke's Hospital 1320 Wisconsin Avenue Racine WI 53403	Y	I	M	N	
St. Mary's Hospital Department of Radiology 720 S. Brooks Street Madison WI 53715	Y	N	M	-	
St. Mary's Hospital 2323 North Lake Drive Milwaukee WI 53211	Y	N	M	-	
St. Mary's Hospital 1044 Kabel Street Rhineland WI 54501	Y	I	M	-	
St. Mary's Hospital Medical Center 1726 Shawano Avenue Green Bay WI 54303	Y	N	M	-	
St. Mary's Medical Center, Inc. 3801 Spring Street Racine WI 53405	Y	I	M	-	
St. Michael Hospital Radiology Department 2400 West Villard Avenue Milwaukee WI 53209	Y	I	M	-	
St. Michael's Hospital Radiotherapy Dept. 900 Illinois Avenue Stevens Point WI 54481	Y	N	M	-	

Licensee Name and Address	Questionnaire		Type of Facility	Ships Waste	Comments
	Delivered	Response			
St. Nicholas Hospital 1601 Taylor Drive Sheboygan WI 53081	Y	I	M	N	
St. Vincent Hospital Department of Radiation Therapy 835 S. Van Buren Green Bay WI 54301	Y	N	M	-	
Superior Memorial Hospital 3500 Tower Avenue Superior WI 54880	Y	N	M	-	
Theda Clark Memorial Hospital Department of Nuclear Medicine 130 Second Street Neenah WI 54956	Y	I	M	N	
Thilmany Pulp and Paper Company Thilmany Road Kaukauna WI 54130	Y	I	I	N	
Tracor Northern, Inc. 2551 W. Beltline Highway Middleton WI 53562	Y	I	I	N	
The Trane Company 3600 Pammel Creek Road La Crosse WI 54601	Y	2	I	N	
Trinity Memorial Hospital 5900 S. Lake Drive Cudahy WI 53110	Y	3	M	Y	
Uniroyal, Inc. 501 S. Water Street Stoughton WI 53589	Y	N	I	-	
Universal Foundry Company 495 Pearl Avenue Oshkosh WI 54901	Y	N	I	-	
University of Wisconsin Oshkosh WI 54901	Y	N	E	-	
University of Wisconsin Eau Claire Biology Department Garfield and Park Avenue Eau Claire WI 54701	Y	I	E	N	
University of Wisconsin - Green Bay Green Bay WI 54305	Y	N	E	-	
University of Wisconsin Medical Physics Section Dept. of Radiology Madison WI 53706	Y	I	G	N	

Licensee Name and Address	Questionnaire		Type of Facility	Ships Waste	Comments
	Delivered	Response			
University of Wisconsin - Madison Safety Department 317 N. Randall Avenue Madison WI 53715	Y	1	E	Y	
University of Wisconsin-Milwaukee Botany Department Milwaukee WI 53201	Y	2	E	Y	
University of Wisconsin-Parkside Kenosha WI 53141	Y	N	E	-	
University of Wisconsin-Platteville Chemistry and Physics Engineering Science Building Platteville WI 53818	Y	N	E	-	
University of Wisconsin-River Falls River Falls WI 54022	Y	1	E	N	
University of Wisconsin-Stevens Point Depts. of Physics, Astronomy, Biology, Chemistry & Natural Resources 2100 Main Street Stevens Point WI 54481	Y	3	E	Y	
University of Wisconsin-Whitewater 800 West Main Street Whitewater WI 53190	Y	N	E	-	
Veterans Administration Center Chairman, Radioisotope Committee Wood WI 53193	Y	2	M	Y	
Wm. S. Middletown Memorial Veterans Hospital Radioisotope Laboratory 2500 Overlook Terrace Madison WI 53705	Y	1	M	N	
Viterbo College 815 South Ninth Street La Crosse WI 54601	Y	1	E	N	
Voith, Incorporated P. O. Box 2337 Appleton WI 54913	Y	1	I	N	
The Vollrath Company Foundry Division 1236 North 18th Street Sheboygan WI 53082	Y	1	I	N	
Warzyn Engineering, Inc. 2135 S. 116th St. Milwaukee WI 53227	Y	N	I	-	
Warzyn Engineering, Inc. 1409 Emil Street Madison WI 53715	Y	1	I	N	

Licensee Name and Address	Questionnaire		Type of Facility	Ships Waste	Comments
	Delivered	Response			
Watertown Memorial Hospital 125 Hospital Drive Watertown WI 53094	Y	I	M	N	
Abex Corporation, Waukesha Division 1300 Lincoln Avenue Waukesha WI 53186	Y	I	I	N	
Waukesha Memorial Hospital, Inc. Department of Radiology 725 American Avenue Waukesha WI 53186	Y	I	M	N	
Waupaca Foundry, Inc. Tower Road Waupaca WI 54981	Y	I	M	N	
Wausau Hospital, Inc. Wausau Hospital Center Wausau WI 54401	Y	N	M	-	
Wausau Hospitals, Inc. Maple Hill Wausau WI 54401	Y	N	M	-	
Wausau Medical Center 2727 Plaza Drive Wausau WI 54401	Y	2	M	N	
Wehr Steel Company 2100 South 54th Street Milwaukee WI 53246	Y	I	I	N	
West Allis Memorial Hospital 8901 West Lincoln Avenue West Allis WI 53227	Y	I	M	N	
Wisconsin Centrifugal, Inc. 905 East St. Paul Avenue Waukesha WI 53186	Y	I	I	N	
Wisconsin Electric Power Company 231 W. Michigan Street Milwaukee WI 53201	Y	N	I	-	
Wisconsin Industrial Testing, Inc. 5600 West Hemlock Street Milwaukee WI 53223	Y	I	I	N	
Wisconsin Power & Light Company P. O. Box 98 Portage WI 53901	Y	I	I	N	
Wisconsin Public Service Corporation Kewaunee Nuclear Plant Route 1, Box 48 Kewaunee WI 54216	Y	2	P	Y	

Licensee Name and Address	Questionnaire		Type of Facility	Ships Waste	Comments
	Delivered	Response			
Wisconsin State University 17th and State Streets La Crosse WI 54601	Y	N	E	-	
Zimpro, Inc. Subsidiary of Sterling Drug Military Road Rothschild WI 54474	Y	N	U	-	
Licensee Unknown 606 West Wisconsin Avenue Milwaukee WI 53203	N	-	U	-	
Wisconsin - Michigan Power Company Point Beach Plant	Y	1	P	Y	
Dairyland Power Coop LaCrosse Plant	Y	2	P	Y	

APPENDIX B

STATE LAWS AND REGULATIONS APPLYING TO
RADIOACTIVE WASTE MANAGEMENT IN WISCONSIN

STATE OF WISCONSIN

1979 Assembly Bill 209

Date published*: May 17, 1980

CHAPTER 320 , LAWS OF 1979

AN ACT to renumber and amend 15.197 (12); and to create 15.197 (12) (a) to (c) and 140.56 (3) to (7) of the statutes, relating to membership and responsibilities of the radiation protection council and increasing an appropriation.

The people of the state of Wisconsin, represented in senate and assembly, do enact as follows:

SECTION 1. 15.197 (12) of the statutes is renumbered 15.197 (12) (intro.) and amended to read:

15.197 (12) RADIATION PROTECTION COUNCIL. (intro.) There is created in the department of health and social services a radiation protection council consisting of 9 11 members ~~appointed for staggered 3-year terms. Five members shall be appointed by the department of health and social services. Four members shall be appointed by the industry, labor and human relations commission.~~ as follows:

SECTION 2. 15.197 (12) (a) to (c) of the statutes are created to read:

15.197 (12) (a) Five public members with an interest in and a knowledge of radiation protection matters shall be appointed by the governor for staggered 3-year terms. All public members shall represent a balance of medical, economic, scientific and environmental viewpoints and shall have working expertise in areas related to radiation protection.

(b) One senator and 2 public members shall be appointed as are members of standing committees in the senate for staggered 3-year terms.

(c) One representative and 2 public members shall be appointed as are members of standing committees in the assembly for staggered 3-year terms.

SECTION 3. 140.56 (3) to (7) of the statutes are created to read:

140.56 (3) The council shall monitor the development and implementation of private and local, state and federal government radiation-related policies and programs which may affect the health or well-being of the citizens of the state. These policies and programs include those involving ionizing radiation from X-rays or radioactive materials; nonionizing radiation such as lasers and microwaves, radioactive waste handling and disposal, the transportation of radioactive materials, radioactive air and water pollutants, radiation emergency response planning, the contamination of drinking water supplies by radioactive materials and the environmental monitoring of radioactive materials. As a result of monitoring these policies and programs, the council may:

(a) Comment on reports, programs and regulations.

(b) Recommend new departmental programs, including educational programs or changes in existing programs to the secretary.

(c) Recommend new programs or changes in existing programs in other state agencies. These recommendations shall be transmitted to the secretary who shall forward them to the appropriate agencies.

(d) Recommend that the department of justice intervene in a federal proceeding under s. 165.25 (1). This recommendation shall be transmitted to the secretary who shall forward it to the attorney general.

* Section 990.05, 1977 Wisconsin Statutes: Laws and acts; time of going into force. "Every law or act which does not expressly prescribe the time it takes effect shall take effect on the day after its publication."

(e) Recommend to the legislature, examining boards or other appropriate bodies methods for minimizing diagnostic radiologic exposure, including methods to minimize unnecessary screening procedures, duplicative procedures, improper radiographic field size and retakes.

(f) Recommend to the secretary methods to improve inspection and examination of X-ray apparatus.

(4) The council shall upon request provide other state agencies or local governments with technical assistance on radiation-related policies and programs.

(5) The council may request other state agencies to send designees to attend meetings or to give advice on matters related to radiation protection concerns which are the responsibility or under the jurisdiction of those agencies.

(6) The council may recommend cooperation and coordination of programs related to radiation protection concerns. These recommendations shall be transmitted to the secretary who shall forward them to the appropriate agencies.

(7) All written recommendations, comments or proposed rules prepared by the council under this section shall be accompanied by any written comments prepared by any council member.

SECTION 4. Initial terms of the radiation protection council. The terms of members of the radiation protection council prior to the effective date of this act expire on the effective date of this act. Of the 5 initial public members appointed by the governor to the radiation protection council under this act, 2 shall serve 3-year terms, 2 shall serve 2-year terms and one shall serve a 1-year term. The governor shall specify which members are to serve what terms. The initial senator appointed to the radiation protection council under this act shall serve a term of 3 years plus a period ending on July 1 following the expiration of that term. Of the 2 initial public members appointed as are members of the standing committees of the senate to the radiation protection council under this act, one shall serve a 2-year term and one shall serve a one-year term plus a period ending on July 1 following the expiration of those terms. The appointing authority shall specify which members are to serve what terms. The initial representative appointed to the radiation protection council under this act shall serve a term of 3 years plus a period ending on July 1 following the expiration of that term. Of the 2 initial public members appointed as are members of the standing committees of the assembly to the radiation protection council under this act, one shall serve a 2-year term and one shall serve a one-year term plus a period ending on July 1 following the expiration of those terms. The appointing authority shall specify which members are to serve what terms. After the initial appointment, appointments shall be made in accordance with 15:197 (12) of the statutes as affected by this act.

SECTION 5. Appropriation increase. The appropriation under section 20.435 (1) (a) of the statutes, as affected by the laws of 1979, is increased by \$13,200 in fiscal year 1979-80 and by \$31,700 in fiscal year 1980-81 to provide staff, travel and meeting expenses for the radiation protection council.

SECTION 6. Position authorization. There is authorized 1.0 radiation consultant position and 0.5 typist position for the department of health and social services for the radiation protection council to be funded from the appropriation under section 20.435 (1) (a) of the statutes.

CHAPTER 377, Laws of 1977
(Vetoed in Part)

Vetoed
in Part

AN ACT to repeal 15.347 (9) and 144.815; to renumber 144.44 (2) and 144.76; to renumber and amend 144.43 and 144.437; to amend 20.935 (1) (ud), 144.30 (4) and (8), 144.35 (1) (a), 144.435 (2), 144.44 (title), 144.445 (1) and (2) (a) and 144.54 (1) and (2) (a) 1; to repeal and recreate 60.72 (1), 144.30 (10) and 144.44 (1); and to create 13.565 (3), 15.347 (12), 20.370 (2) (fz), (g), (h), (n) and (q), 25.17 (1) (ym), 25.45, 59.51 (17), 70.995 (2) (y), ~~84.205~~ 144.30 (13) to (15), 144.44 (2) to (8), 144.441, 144.442, 144.43 (1m), 144.60 to 144.74, 144.76 and 499.15 (3) of the statutes, relating to establishing a hazardous waste management program under the department of natural resources, abolishing the mine reclamation council, creating a metallic mining council, establishing a waste management fund, creating a manufacturing machinery and equipment tax exemption, revising the department's regulation of the planning, establishment and operation of solid waste disposal sites and facilities, granting rule-making authority subject to legislative review, making an appropriation and providing a penalty.

The people of the state of Wisconsin, represented in senate and assembly, do enact as follows:

SECTION 1. 13.565 (3) of the statutes is created to read:

13.565 (3) (a) Prior to the establishment of any rules relating to the hazardous waste management program under ch. 144, this subsection shall be complied with.

(b) *Role of legislative council.* Prior to any public hearing on a proposed rule, or if no public hearing is required, prior to notification of the standing committees, the department shall submit the proposed rule to the legislative council for review. The legislative council shall act as a clearing house for rule drafting and cooperate with the department and the revisor to:

1. Review the statutory authority under which the department intends to adopt the rule. The legislative council shall notify the department, the joint committee for the review of administrative rules and the appropriate standing committee when the statutory authority is eliminated or significantly changed by repeal, amendment, court decision or for any other reason.

2. Ensure that the procedures for the promulgation of a rule required by this subsection and ch. 227 are followed.

3. Review proposed rules for form, style and placement in the administrative code.

4. Review proposed rules to avoid conflict with or duplication of existing rules.

5. Review proposed rules to provide adequate references to relevant statutes, related rules and forms.

6. Streamline and simplify the rule-making process.

7. Review proposed rules for clarity, grammar and punctuation and to ensure plain language.

8. Review proposed rules to determine potential conflicts and to make comparisons with federal regulations.

(c) *Legislative council to assist standing committees.* The legislative council shall work with and assist the appropriate standing committees throughout the rule-making process. The legislative council may issue recommendations concerning any proposed rule which the department submits.

(d) *Notification of standing committees.* The department shall notify appropriate standing committees when proposed rules are in final draft form by submitting a notice to the presiding officer in each house. Each presiding officer shall refer the notice to one standing committee. The department may withdraw a proposed rule by notifying the presiding officer in each house of the legislature of its intention not to promulgate the rule.

(e) *Form of notice.* The notice shall include the proposed rule in a form complying with s. 227.024 (1).

(f) *Standing committee review.* 1. A committee may be convened upon the call of its chairperson or a majority of its members to review a proposed rule. A committee may meet separately or jointly with the other committee to which the notice is referred, direct the department to attend the meeting and hold public hearings to review the proposed rule.

2. The standing committee review period lasts for 30 days after the notice is submitted and if within the 30-day period a standing committee directs the department to meet with it to review the proposed rule, the standing committee review period is extended for 30 days from the date of that request.

3. The department may not promulgate a proposed rule during the standing committee review period unless both committees approve the rule prior to the expiration of that period.

4. Either standing committee may disapprove the proposed rule or part of a proposed rule by taking action in executive session to disapprove the rule within the standing committee review period. If both committees fail to take this action, the proposed rule is not disapproved and the department may promulgate the rule.

(g) *Joint committee for the review of administrative rules.* 1. If either standing committee disapproves a proposed rule or part of a proposed rule, the proposed rule or its part shall be referred to the joint committee for the review of administrative rules.

2. The joint committee review period lasts for 30 days after the proposed rule is referred and the joint committee shall meet and take action in executive session during that period.

3. The department may not promulgate a proposed rule or its part which is disapproved by a standing committee unless the proposed rule is approved by the joint committee for the review of administrative rules or until the bill in subd. 5 fails of enactment. The department may promulgate portions of the rule which were not suspended, if the committee disapproved only parts of the rules.

4. The joint committee for the review of administrative rules may reverse the standing committee disapproval by taking action to approve the rule within the joint committee review period. The joint committee may uphold the standing committee disapproval by taking action to disapprove the rule within the joint committee review period. The joint committee may remand the proposed rule to the department for further consideration or public hearings or both. If the joint committee disapproves a proposed rule, the department may not promulgate the proposed rule until the bill in subd. 5 fails of enactment.

5. When the joint committee for the review of administrative rules disapproves a proposed rule or portion of the proposed rule, the committee shall as soon as possible place before the legislature, a bill to support the disapproval. If such bill is defeated, or fails of enactment in any other manner, the proposed rule or portion of the proposed rule may be promulgated. If the bill becomes law, the proposed rule or portion of the proposed rule, may not be promulgated unless a properly enacted law specifically authorizes the adoption of that rule.

(h) *Emergency rules.* This subsection does not apply to emergency rules adopted under s. 227.027.

SECTION 1a. 15.347 (9) of the statutes is repealed.

SECTION 1b. 15.347 (12) of the statutes is created to read:

15.347 (12) **METALLIC MINING COUNCIL.** There is created in the department of natural resources a metallic mining council consisting of 9 persons representing a variety and balance of economic, scientific and environmental viewpoints. Members shall be appointed by the secretary of the department for staggered 3-year terms. The council shall advise the department on the implementation of ss. 144.43, 144.44, 144.441, 144.442, 144.445, 144.60 to 144.74 and 144.80 to 144.94 as those statutory sections relate to metallic mining in this state. The council shall serve as an advisory, problem-solving body to work with and advise the department on matters relating to the reclamation of mined land in this state and on methods of and criteria for the location, design, construction and operation and maintenance of sites and facilities for the disposal of metallic mine-related wastes. All rules proposed by the department relating to the subjects specified in this subsection shall be submitted to the council for review and comment prior to the time the rules are proposed in final draft form by the department. The department shall transmit the written comments of all members of the council submitting written comments with the summary of the proposed rules to the appropriate standing committees of the legislature under s. 227.018 (2). Written minutes of all meetings of the council shall be prepared by the department and made available to all interested parties upon request.

SECTION 1m. At the appropriate place in the schedule of section 20.005 of the statutes, insert the following amounts for the purposes indicated:

	1977-78	1978-79
20.370 Natural resources, department of		
(2) ENVIRONMENTAL STANDARDS		
(fz) Initial funding - hazardous substances spill fund	GPR C 50,000	50,000

SECTION 2. 20.370 (2) (fz), (g), (h), (n) and (q) of the statutes are created to read:

20.370 (2) (fz) *Initial funding - hazardous substances spill fund.* As a continuing appropriation, the amounts in the schedule for initial administration of the hazardous substances spill fund under s. 144.76 (6).

(g) *Solid and hazardous waste disposal.* All moneys received from fees under ss. 144.44 (5) and 144.64 (5), for the purpose of administering ss. 144.44 and 144.64.

(h) *Hazardous substances spill fund.* All moneys received from reimbursements under s. 144.76 (6) (c) for the administration of the hazardous substances spill fund under s. 144.76 (6).

(n) *Hazardous substances spill fund - federal funds.* All moneys received from reimbursements under s. 144.76 (6) (d) for the administration of the hazardous substances spill fund under s. 144.76 (6).

(q) *Waste management fund - solid and hazardous waste disposal site program.* As a continuing appropriation, all moneys received in the waste management fund for the purpose of administering a program of long-term care of and environmental repairs to solid and hazardous waste disposal sites under s. 144.441.

SECTION 2m. 20.395 (1) (ud) of the statutes, as affected by chapter 29, laws of 1977, is amended to read:

20.395 (1) (ud) *Miscellaneous highway aids, state funds.* The amounts in the schedule to make payments under ss. ~~84.205~~ 86.315 and 86.34, and to pay an amount equal to \$25 of each fee under s. 218.22 (1) and (2) to the city, village or town in which the motor vehicle salvage dealer is located. Vetoed
in Part

SECTION 3. 25.17 (1) (ym) of the statutes is created to read:

25.17 (1) (ym) Waste management fund (s. 25.45);

SECTION 4. 25.45 of the statutes is created to read:

25.45 Waste management fund. There is established a separate nonlapsible trust fund designated as the waste management fund, to consist of all fees collected under s. 144.441 (2) (c) and (3). Moneys in the waste management fund shall be used for the purposes enumerated in s. 144.441 (3) (d).

SECTION 5. 59.51 (17) of the statutes is created to read:

59.51 (17) Record and index writings submitted according to s. 144.44 (4) (b), evidencing that a site for the land disposal of solid waste or a hazardous waste disposal facility will be established on the particular parcel described in the writings.

SECTION 6. 60.72 (1) of the statutes is repealed and recreated to read:

60.72 (1) The town board may by order, ordinance or resolution designate any town highway which provides reasonable access to a solid waste disposal site or facility licensed under s. 144.44 as appropriate for the transportation of solid waste into, within or through the town for the purpose of disposing of the same at such site or facility, and may in such order, ordinance or resolution prohibit the use of other town highways for that purpose.

SECTION 7. 70.995 (2) (y) of the statutes is created to read:

70.995 (2) (y) Hazardous waste treatment facility, as defined in s. 144.61 (11), unless exempt under s. 70.11 (21).

~~SECTION 7a. 84.205 of the statutes is created to read:~~

~~84.205 **Repair of highways and streets damaged by solid waste transporters.** Any county, city, village or town may file a claim with the department for reimbursement of the actual and necessary expenses incurred by the local government in repairing damage to its highways or streets caused by persons gaining access to a site or facility for the disposal of solid waste and for collecting litter deposited along such highways or streets by persons gaining access to a site or facility for the disposal of solid waste. The department shall pay all such expenses from funds appropriated under s. 20.395 (1) (ud). Any person aggrieved by the department's determination of liability under this section for the damage caused or litter deposited may appeal the determination to the transportation commission. The decision of the transportation commission shall be subject to judicial review under ch. 227.~~

Vetoed
in Part

SECTION 8. 144.30 (4) and (8) of the statutes are amended to read:

144.30 (4) "Solid waste" means any garbage, refuse, sludge from a waste treatment plant, water supply treatment plant or air pollution control facility and other discarded or salvageable solid materials, including solid waste solid, liquid, semisolid, or contained gaseous materials resulting from industrial, commercial, mining and agricultural operations, and from domestic use and public service community activities, but does not include solids or dissolved material in waste water effluents or other common water pollutants domestic sewage, or solid or dissolved materials in irrigation return flows or industrial discharges which are point sources subject to permits under ch. 147, or source, special nuclear or by-product material as defined under s. 140.52.

(8) "Solid waste disposal sites and facilities" include commercial and municipal establishments or operations such as, without limitation because of enumeration, sanitary landfills, dumps, incinerator sites land disposal sites, incinerators, auto junk yards and, scrap metal salvage yards, transfer stations, storage facilities, collection and transportation services and other establishments or operations for the storage, collection, transportation, transfer, processing, treatment, recovery or disposal of solid

waste. "Solid waste disposal sites and facilities" does not include a site or facility for the processing of scrap iron, steel or nonferrous metal using large machines to produce a principal product of scrap metal for sale or use for remelting purposes; nor does the term include a site or facility which uses large machines to sort, grade, compact or bale clean wastepaper, fibers or plastics, not mixed with other solid waste, for sale or use for recycling purposes.

SECTION 9. 144.30 (10) of the statutes is repealed and recreated to read:

144.30 (10) "Hazardous substance" means any substance or combination of substances, including wastes, of a solid, liquid, gaseous or semisolid form which, because of its quantity, concentration or physical, chemical or infectious characteristics, may cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible or incapacitating reversible illness, or pose a substantial present or potential hazard to human health or the environment. Such substances may include, but are not limited to, those which are, to the degree determined by the department, toxic, corrosive, flammable, irritants, strong sensitizers or explosive.

SECTION 10. 144.30 (13) to (15) of the statutes are created to read:

144.30 (13) "Closing" means the time at which a solid waste or hazardous waste treatment, storage or disposal facility ceases to accept wastes, and includes those actions taken by the owner or operator of the facility to prepare the site for long-term care and to make it suitable for other uses.

(14) "Long-term care" means the routine care, maintenance and monitoring of a solid waste or hazardous waste treatment, storage or disposal facility following closing of the facility.

(15) "Termination" means the final actions taken by an owner or operator of a solid waste or hazardous waste treatment, storage or disposal facility when formal responsibilities for long-term care cease.

SECTION 10m. 144.35 (1) (a) of the statutes is amended to read:

144.35 (1) (a) Whenever the department has reason to believe that a violation of ss. 144.30 to 144.46 and 144.54 or any rule ~~pursuant thereto~~ promulgated under ss. 144.30 to 144.46 and 144.54 has occurred, it may cause written notice to be served upon the alleged violator. The notice shall specify the law or rule alleged to be violated, and contain the findings of fact on which the charge of violation is based, and except as provided in s. 144.44 (8), may include an order that necessary corrective action be taken within a reasonable time. Any such order shall become effective unless, no later than ~~40~~ 30 days after the date the notice and order are served, the person named ~~therein in the notice and order~~ requests in writing a hearing before the department. Upon such request, the department shall after due notice hold a hearing. In lieu of an order, and except as provided in s. 144.44 (8), the department may require that the alleged violator appear before the department for a hearing at a time and place specified in the notice and answer the charges complained of, or the department may initiate action under s. 144.57.

SECTION 11. 144.43 of the statutes is renumbered 144.43 (1) and amended to read:

144.43 (1) The department shall, ~~no later than January 1, 1969,~~ prepare and adopt minimum standards for the location, design, construction, sanitation, operation and maintenance of solid waste disposal sites and facilities and shall, following a public hearing, adopt such rules relating to the operation and maintenance of solid waste disposal sites and facilities as it deems necessary to ensure compliance and consistency with the purposes of and standards established under the resource conservation and recovery act of 1976, P.L. 94-580, except that such rules relating to open burning shall be consistent with s. 144.431. The standards and rules adopted under this subsection shall conform to the rules adopted under sub. (1m).

SECTION 11m. 144.43 (1m) of the statutes is created to read:

144.43 (1m) No later than 24 months after the effective date of this act (1977), the department shall adopt, with the advice and comment of the metallic mining council, rules for the identification and regulation of metallic mining wastes. The rules adopted to identify metallic mining wastes and to regulate the location, design, construction and operation and maintenance of the sites and facilities for the disposal of metallic mining wastes shall be adopted in accordance with ~~any or all of~~ the following: chs. 30, 144 and 147 and s. 107.05. The rules shall take into consideration the special requirements of metallic mining operations in the location, design, construction and operation and maintenance of sites and facilities for the disposal of metallic mining wastes as well as any special environmental concerns that will arise as a result of the disposal of metallic mining wastes. In adopting the rules, consideration shall also be given to research, studies, data and recommendations of the U.S. environmental protection agency on the subject of metallic mining wastes arising from the agency's efforts to implement the resource conservation and recovery act of 1976, P.L. 94-580.

SECTION 12. 144.435 (2) of the statutes is amended to read:

144.435 (2) All county plans shall be submitted to the department of ~~local affairs and development~~ for review. Within 90 days after submittal, the department of ~~local affairs and development~~ shall ~~transmit the plans and its recommendations to the department of natural resources for approval. The department of natural resources shall approve or disapprove the plans within 90 days after their submittal by the department of local affairs and development.~~ During its review, the department of ~~local affairs and development~~ may ~~shall~~ consult with the appropriate regional planning commission or other planning agency to determine whether any site use and operation is ~~not~~ in conflict with any plans adopted by ~~the commission~~ such agency.

SECTION 13. 144.437 of the statutes is renumbered 144.435 (3) and amended to read:

144.435 (3) The department of ~~local affairs and development~~ shall by rule adopt county solid waste management criteria for the development of the plans permitted under ~~s. 144.435 this section.~~

SECTION 14. 144.44 (title) of the statutes is amended to read:

144.44 (title) Site approval process; annual operating license.

SECTION 15. 144.44 (1) of the statutes is repealed and recreated to read:

144.44 (1) No person may establish or construct a site for the land disposal of solid waste unless the person has complied with subs. (2) and (3). No person may operate any solid waste disposal site or facility without having obtained an operating license as provided in sub. (4).

SECTION 16. 144.44 (2) of the statutes is renumbered 144.43 (2).

SECTION 17. [144.44 (2) to (8) of the statutes are created to read:]

144.44 (3) (a) Prior to constructing or establishing a site for the land disposal of solid waste or a site for the treatment, storage or disposal of hazardous waste, the applicant shall submit to the department a feasibility report describing the physical conditions of the proposed site. The purpose of the report and review of the report under this subsection is to determine whether the site has potential for use in solid waste disposal or hazardous waste treatment, storage or disposal and to establish any conditions which the applicant must include in the plan of operation submitted under sub. (3). Favorable feasibility determination under this subsection does not guarantee plan approval under sub. (3) or licensure under sub. (4).

(b) The feasibility report shall be submitted by a registered professional engineer, when deemed necessary by the department, and shall include a general summary of the site characteristics as well as any specific data the department by rule requires regarding the site's topography, soils, geology, ground and surface waters and other features of the site and surrounding area. The report shall also include preliminary engineering design concepts including the proposed design capacity of the site and an

indication of the quantities and characteristics of the wastes to be disposed of. The department shall, by rule, specify the minimum contents of feasibility reports and no report shall be deemed complete unless the specified information is provided by the applicant. The rules may specify special requirements for feasibility reports relating to sites for the treatment, storage or disposal of hazardous waste. Within 30 days after a feasibility report is submitted, the department shall either publish notice under par. (d) or notify the applicant in writing that the report is not complete, specifying the information which must be submitted before the report is deemed complete.

(c) In the event that a local ordinance or resolution precludes or inhibits the ability of the applicant to obtain data required to be submitted in a feasibility report, the applicant may petition the department to waive application of the ordinance or resolution to the applicant. The department shall promptly schedule a hearing on the matter of waiver and notify the local government of the scheduled hearing. If, after hearing, the department finds the ordinance or resolution to be unreasonable, the department shall waive application of the ordinance or resolution to the applicant.

(d) Within 30 days after a complete feasibility report is filed, the department shall publish a class 1 notice under ch. 985, in the official newspaper designated under s. 985.04 or 985.05, or, if none exists, in a newspaper likely to give notice in the area of the proposed site or facility. The notice shall invite the submission of written comments by any person within 30 days from the time the notice is published, and shall describe the method by which a hearing may be demanded under par. (e). The department shall also send a copy of the notice and of the general summary of the report to the clerk of any county, city, village or town with zoning jurisdiction over the proposed site, to the clerk of any county, city, village or town within whose boundaries any portion of the proposed site will be located, or which could be substantially affected by the operation of the proposed site, and to the main public library of each county or municipality with zoning jurisdiction over the proposed site, within whose boundaries any portion of the proposed site will be located, or which could be substantially affected by the operation of the proposed site.

(e) Within 30 days after the notice required under par. (d) is published, a written demand for a hearing on the matter may be filed by any county, city, village or town, or by any 6 persons. The demand shall indicate the interests of the municipality or persons who file it and state the reasons why the hearing is demanded. A hearing demanded under this paragraph shall be held within 60 days after the deadline for demanding a hearing and shall be conducted as provided in s. 227.022. The hearing shall be held in an appropriate place designated by the department in one of the counties, cities, villages or towns which could be substantially affected by the operation of the proposed site.

(f) Within 120 days after the submission of a complete feasibility report under par. (a), or within 60 days after any hearing demanded under par. (e) is adjourned, whichever is later, the department shall issue a written determination of site feasibility, stating the findings of fact and conclusions of law upon which the determination is based. If the feasibility report indicates the probability that plan approval for the site under sub. (3) cannot be given until an environmental impact statement has been prepared, or if the department intends to require submission of an environmental impact report under s. 23.11 (5), the department shall notify the applicant of that fact and commence the process required under s. 1.11. Any determination made under this subsection may be conditioned upon the design, operational or other requirements deemed necessary to be included in the plan submitted under sub. (3). A favorable determination issued under this subsection shall specify the design capacity of the proposed site and entitle the applicant to submit a plan of operation under sub. (3). A determination under this subsection does not constitute a major state action under s. 1.11 (2).

(3) (a) Any person who has obtained a favorable determination of site feasibility may submit to the department a proposed plan of operation for the site. The owner or operator of a licensed facility for the land disposal of solid waste in existence on the effective date of this act (1977) may, but shall not be required to, seek approval of the

site's plan of operation under this subsection. Any operator engaged in mining as defined under s. 144.81 (5) on the effective date of this act (1977) may, but shall not be required to, seek approval of any feasibility report or plan of operation for any site for the disposal of solid waste resulting from such mining operations in existence on the effective date of this act (1977).

(b) The proposed plan of operation shall be submitted by a registered professional engineer and shall include at a minimum a description of the manner of solid waste disposal or hazardous waste treatment, storage or disposal and a statement setting forth the proposed development, daily operation, closing and long-term care of the site. The proposed plan of operation shall specify whether the owner's responsibility for long-term care of the site will terminate 30 years after closing as provided in s. 144.441 (2) (b) or 20 years after closing as provided in s. 144.441 (2) (c). The department shall, by rule, specify the minimum contents of a plan of operation submitted for approval under this subsection and no plan may be deemed complete unless the information is supplied. The rules may specify special standards for plans of operation relating to sites or facilities for the treatment, storage or disposal of hazardous waste. Within 30 days after a plan is submitted, the department shall notify the applicant in writing if the plan is not complete, specifying the information which must be submitted before the report is deemed complete. If no notice is given, the report shall be deemed complete on the date of its submission.

(c) Within 90 days after a complete plan of operation is submitted or within 90 days after the department has issued any environmental impact statement required under s. 1.11, whichever is later, the department shall either approve or disapprove the plan in writing. The determination of the department shall be based upon compliance with the standards established under s. 144.43 or, in the case of hazardous waste treatment, storage or disposal sites, with the rules and standards established under s. 144.62. No plan for a site or facility for the disposal of solid or hazardous waste may be approved unless the applicant submits a bond, deposit, proof of an established escrow account or other proof of financial responsibility satisfactory to the department ensuring that the applicant and any successor in interest will comply with the closure and long-term care requirements of the plan. An approval may be conditioned upon any requirements necessary to comply with the standards. Any approval may be modified by the department upon application of the licensee if newly discovered information indicates that the modification would not inhibit compliance with the standards adopted under s. 144.43 or, if applicable, s. 144.62. If the plan approval has been listed as required for the construction of an electric generating facility under s. 196.491 (2m), the time limits provided in s. 196.491 (3) (f) and (ff) shall take precedence over those provided in this paragraph.

(d) Approval under par. (c) shall entitle the applicant to construct and operate the site in accordance with the approved plan for not less than the design capacity specified in the determination of site feasibility, unless the department establishes by a clear preponderance of the credible evidence that:

1. The site is not constructed in accordance with the approved plan;
2. The site poses a substantial hazard to public health or welfare; or
3. In-field conditions, not disclosed in the feasibility report or plan of operation, necessitate modifications of the plan to comply with standards in effect at the time of plan approval under s. 144.43 or, if applicable, s. 144.62.

(e) Failure to operate in accordance with the approved plan shall subject the operator to enforcement under s. 144.35, or, if the department establishes that any failure to operate in accordance with the approved plan is grievous and continuous, to suspension, revocation or denial of the annual operating license under sub. (4).

(4) (a) No person may maintain or operate a site or facility for the disposal of solid waste or the treatment, storage or disposal of hazardous waste, unless the person has obtained an operating license from the department. The license shall be issued no more frequently than annually and may be denied, suspended or revoked for failure to

pay the fees required under s. 144.441 (2) (c) or (3) or for grievous and continuous failure to comply with the approved plan of operation under sub. (3) or, if no plan of operation exists with regard to the site or facility, for grievous and continuous failure to comply with the standards adopted under s. 144.43. If the license application is for a site for the disposal of solid waste resulting from mining operations in existence on the effective date of this act (1977), the department shall make any determination with respect to whether disposal is being undertaken in an environmentally sound manner and shall administer compliance with the licensing requirement of this subsection in a manner which, with respect to nonhazardous solid waste, does not require substantial structural modification of the existing site, expenditure which is not appropriate for the nonhazardous nature of the waste or interruption of the mining operation.

(b) The initial operating license for a site for the land disposal of solid waste or the treatment, storage or disposal of hazardous waste shall not be issued unless the site has been constructed in substantial compliance with the operating plan approved under sub. (3). The department may require that compliance be certified in writing by a registered professional engineer. The department may by rule require, as a condition precedent to the issuance of the operating license for a solid waste land disposal site, that the applicant submit evidence that a notation of the existence of the site has been recorded in the office of the register of deeds in each county in which a portion of the site is located.

(5) The department shall, by rule, adopt a graduated schedule of reasonable fees to be charged for administering this section.

(6) At least 120 days prior to the closing of a site for the land disposal of solid waste, or the treatment, storage or disposal of hazardous waste, the owner or operator shall notify the department in writing of the intent to close the site.

(7) The department may waive compliance with any requirement of this section or shorten the time periods under this section provided to the extent necessary to prevent an emergency condition threatening public health, safety or welfare. The department may, by rule, exempt specified solid wastes or specified facilities and sites from licensing as solid waste disposal sites or facilities if it finds that regulation under this section would discourage the development of improved methods of solid waste disposal, including the landspreading of sludges, or would not be warranted, in light of the potential hazard to public health or the environment. The department shall not regulate under this chapter any solid waste from a single family or household disposed on the property where it is generated. No license pursuant to s. 144.44 shall be required for agricultural land on which nonhazardous sludges from a treatment work, as defined under s. 147.015 (12), are land spread for purpose of a soil conditioner or nutrient.

(8) Notwithstanding s. 144.35, for solid waste disposal sites or facilities licensed on or before January 1, 1977, which the department believes do not meet minimum standards promulgated under s. 144.43, the following enforcement procedure shall apply:

(a) The department may issue an order relating to the site or facility or may refuse to relicense the site or facility.

(b) The department shall notify the licensee of its intended action under par. (a), and the licensee, within 30 days of receipt of such notice, shall notify the department whether it desires a hearing under par. (c).

(c) If the licensee desires a hearing, the department may not issue the order or decision under par. (a) until a hearing, conducted as a class 2 proceeding under ch. 227, is held. The hearing shall be held in the county where the site or facility is located. At the hearing the department must establish by a preponderance of all the available evidence that the site or facility does not adhere to the minimum standards promulgated under s. 144.43. If the hearing examiner's decision is in favor of the department, the order or decision may be issued. The order or decision shall be subject to judicial review under ch. 227.

(d) If the licensee does not request a hearing under par. (b), the department shall issue the order or decision under par. (a). The licensee may challenge the order or decision by commencing an action in the circuit court for the county in which the site or facility is located within 60 days after issuance of the order or decision. The complaint shall allege that the site or facility adheres to the minimum standards promulgated under s. 144.43. The trial shall be conducted by the court without a jury, and shall be conducted as a de novo proceeding.

SECTION 18. [144.441 and 144.442 of the statutes are created to read:]

144.441 Long-term care. (1) STANDARDS. The department shall prescribe by rule minimal standards for closing, long-term care and termination of sites for the disposal of hazardous waste or the land disposal of solid waste. The standards, and any additional site-specific requirements designated by the department, shall be incorporated into the plan of operation prepared under s. 144.44 (3). The long-term care provisions in an approved plan of operation may be modified under s. 144.44 (3) (d) 3.

(2) OWNER RESPONSIBILITY; TERMINATION. (a) In this subsection, "site" refers only to a site for the disposal of hazardous waste or the land disposal of solid waste with an approved plan of operation under s. 144.44 (3), or a site for the land disposal of solid waste initially licensed within 3 years prior to the effective date of this act (1977) whose owner successfully applies, within 2 years after the effective date of this act (1977), for a determination by the department that the site's design and plan of operation comply substantially with the requirements necessary for plan approval under s. 144.44 (3).

(b) The owner of a site shall be responsible for the long-term care of the site for 30 years after closing of the site unless the responsibility is terminated earlier under par. (c) or (d).

(c) If the approved plan of operation for a site so indicates, or if the owner of a site so requests and the department approves ~~xx~~ the owner's responsibility for long-term care of the site shall terminate 20 years after closing of the site unless the owner's responsibility is terminated sooner under par. (d). With respect to such sites, the fees imposed under sub. (3) (b) shall be 3.5 cents per ton and the fees imposed under sub. (3) (c) shall be 35 cents per ton.

Vetoed
in Part

(d) The owner of a site may apply to the department for termination of the owner's responsibility for long-term care at any time after the site has been closed for at least 10 years. Upon receipt of such application the department shall, using the procedure applicable to feasibility reports under s. 144.44 (2) (d), provide notice to the public and to the owner or operator and an opportunity for a hearing on the termination of the site. In this proceeding the burden shall be on the applicant to prove by a preponderance of the evidence that additional long-term care is not necessary for adequate protection of public health or the environment. Within 120 days after posting notice of the pending termination or within 60 days after any hearing is adjourned, whichever is later, the department shall determine either that long-term care of the site is no longer required, in which case the applicant shall be relieved of such responsibility; or that additional long-term care of the site as specified in the plan of operation is still required, in which case further application under this subsection shall not be permitted until at least 5 years have elapsed since the previous application.

(3) WASTE MANAGEMENT FUND. (a) Each owner or operator of a licensed site for the land disposal of solid waste or the disposal of hazardous waste shall periodically pay to the department a fee for each ton, or equivalent volume as determined by rule of the department, of solid waste received and disposed of at the site during the preceding reporting period. Solid waste materials approved by the department ~~as suitable~~ for lining or capping a dike, berm or road construction within a site for the land disposal of solid waste shall not be subject to the fee imposed under this paragraph. The department shall reduce or waive such fees for solid waste resulting from mining if it determines that the reclamation bonding and other requirements of ss. 144.81 to 144.94 are sufficient to

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accomplish the purposes of this subsection. Such fees shall be paid into the waste management fund to be used for the purposes specified in par. (d). Whenever the investment board certifies to the department that the balance in the waste management fund exceeds \$15,000,000, this paragraph shall not apply to any site which is operating under its 6th or subsequent annual license until the investment board certifies to the department that the balance in the waste management fund is less than \$12,000,000.

(b) Except as provided in sub. (2) (c), the fee imposed by par. (a) shall be 1.5 cents per ton for solid waste and for any hazardous wastes which are excepted from the fee specified in par. (c).

(c) Except as provided in sub. (2) (c), the fee imposed by par. (a) shall be 15 cents per ton for hazardous wastes other than ashes and sludges from electric and process steam generating facilities, sludges produced by waste treatment or manufacturing processes at pulp or paper mills, manufacturing process solid wastes from foundries, or sludges produced by municipal wastewater treatment facilities.

(d) In this paragraph, "site" has the meaning given in sub. (2) (a). The moneys in the waste management fund shall be expended by the department exclusively for the following purposes:

1. Payment for all costs of long-term care of a site accruing after the responsibility of the owner has been terminated under sub. (2). The department shall by rule provide for the method of payment.

2. Payment of the costs of repairing a site, and the costs of repairing environmental damage caused by a site, as a result of occurrence not anticipated in the plan of operation which poses a substantial hazard to public health or welfare. Prior to making any expenditure under this subdivision, the department shall publish a class I notice, under ch. 985, of its intent to do so, specifying the amount and purpose of the proposed expenditure and shall afford a hearing to any person who so demands within 30 days for the purpose of determining whether the proposed expenditure meets the requirements of this subdivision. If an expenditure made under this subdivision would not have been necessary had the person responsible for the operation or long-term care of the site substantially complied with the requirements of the plan of operation, a right of action in favor of the fund shall accrue to the state against such person, and the attorney general shall take such action as is appropriate to enforce this right of action by recovering any amounts so expended. The net proceeds of any such recovery shall be paid into the waste management fund.

144.442 Transference of responsibility. Any person acquiring rights of ownership, possession or operation in a licensed site or facility for the disposal of solid waste or the treatment, storage or disposal of hazardous waste at any time after the site or facility has begun to accept waste shall be subject to all requirements of the license approved for the site or the facility, including the requirements relating to long-term care of the site or facility. Upon acquisition of the rights, the department shall issue a new operating license if the previous licensee is no longer connected with the operation of the site or facility, if the new licensee meets all requirements specified in the previous license, the approved plan of operation, if any, and the rules promulgated under s. 144.62, if applicable.

SECTION 19. 144.445 (1) and (2) (a) of the statutes are amended to read:

144.445 (1) Any solid waste site or facility which meets all state standards and is to be operated ~~either by a governmental jurisdiction or combination thereof engaged in solid waste management~~ in accordance with an approved county plan under s. 144.435 (2) shall not be required to obtain any local permits or authorization.

(2) (a) Notwithstanding s. ~~144.44~~ 144.43 (2), if a solid waste disposal site ~~designed to serve a county or 2 or more municipalities or facility~~ is otherwise eligible for construction and licensing except for failure to obtain a local permit, the department may, ~~if it finds after notice and hearing, issue a license under s. 144.44 for the operation of said site. In issuing said license the department must find that the requirements of public health, safety and welfare so require the waiver of, waive such~~ local approvals ~~as a condition precedent to issuance of a license.~~

SECTION 20. 144.54 (1) and (2) (a) 1 of the statutes, as affected by chapter 29, laws of 1977, are amended to read:

144.54 (1) The department shall require by rule that all persons, except municipalities, discharging industrial wastes, ~~toxic and~~ hazardous substances or air contaminants in this state report the manner used, amount used and amount discharged for each such waste, substance or contaminant. The required report shall include industrial wastes and ~~toxic and~~ hazardous substances discharged into any sewerage system operated by a municipality. The department may verify reports received by field monitoring of industrial waste and other waste outfalls and air contaminant sources.

(2) (a) 1. ~~Toxic and hazardous~~ Hazardous substances:

SECTION 21. 144.60 to 144.74 of the statutes are created to read:

144.60 Hazardous waste management act. (1) TITLE. Sections 144.60 to 144.74 shall be known and may be cited as the "Hazardous Waste Management Act".

(2) DECLARATION OF POLICY. The legislature finds that hazardous wastes, when mismanaged, pose a substantial danger to the environment and public health and safety. To ensure that hazardous wastes are properly managed within this state, the legislature declares that a state-administered regulatory program is needed which:

(a) Relies upon private industry or local units of government to provide hazardous waste management services.

(b) Requires the transportation, storage, treatment and disposal of hazardous wastes to be performed only by licensed operators.

(c) Requires generators of hazardous waste to utilize operators licensed to transport, treat, store or dispose of hazardous wastes.

(d) Does not interfere with, control or regulate the manufacturing processes which generate hazardous wastes.

(e) Ensures the maintenance of adequate records on, and the reporting of, the disposition of all hazardous wastes either generated in or entering this state.

(f) Encourages to the extent feasible, the reuse, recycling or reduction of hazardous wastes.

(g) Provides adequate care and protection of disposal sites after the sites cease to accept hazardous wastes.

(h) Provides members of the public and units of local government an opportunity to review and comment upon the construction, operation and long-term care of hazardous waste management facilities.

(i) Meets the minimum requirements of the resource conservation and recovery act of 1976, P.L. 94-580.

(3) RULES ON METALLIC MINING WASTES. The requirements of ss. 144.60 to 144.74 shall be subject to s. 144.43 (1m).

144.61 Definitions. In ss. 144.60 to 144.74:

(1) "Department" means the department of natural resources.

(2) "Disposal" means the discharge, deposit, injection, dumping or placing of any hazardous waste into or on any land or water so that the hazardous waste or any constituent of the hazardous waste may enter the environment or be emitted into the air or discharged into any waters, including ground waters, or the storage of any hazardous waste for a period longer than 18 months.

(3) "Generation" means the act or process of producing hazardous waste but does not include any manufacturing process.

(4) "Hazardous waste" or "waste" means any solid waste identified by the department as hazardous under s. 144.62 (2) (a).

(5) "Hazardous waste management" means the systematic source reduction, collection, source separation, storage, transportation, exchange, processing, treatment, recovery and disposal of hazardous wastes.

(6) "Manifest" means a form used for identifying the quantity, composition and the origin, routing and destination of hazardous waste during its transport.

(7) "Person" means an individual, owner or operator, corporation, partnership, association, municipality, interstate agency or state agency.

(8) "Storage" means the containment of hazardous waste, for that period of time established by rule by the department not exceeding 18 months, in such a manner as not to constitute disposal of the hazardous waste. Containment of less than 10,000 gallons for less than one month shall not constitute storage.

(9) "Transport" means the movement of wastes between sites which are subject to or require a license under this subchapter or under the resource conservation and recovery act of 1976, P.L. 94-580.

(10) "Treatment" means any method, technique or process, including neutralization, which follows generation and is designed to change the physical, chemical or biological character or composition of any hazardous waste so as to neutralize the hazardous waste or so as to render the waste nonhazardous, safer for transport, amenable for recovery, amenable for storage or reduced in volume.

(11) "Treatment facility" means a location at which waste is subjected to treatment and may include a facility where waste has been generated. Such facilities shall not include waste water treatment facilities regulated under ch. 147.

144.62 Powers and duties of the department. (1) Within one year after the effective date of this act (1977), the department shall conduct and publish a study, using existing data to the extent possible, of hazardous waste management in this state. The study shall include, but is not limited to:

(a) A description of the sources of hazardous waste generation within the state, including the types and quantities of hazardous wastes.

(b) A description of current hazardous wastes management practices, including treatment and disposal, within the state.

(c) Establishment of physical criteria for acceptable hazardous waste treatment, storage and disposal sites.

(2) Within 12 months after publication of final regulations required under s. 3001 (b) of the resource conservation and recovery act of 1976, P.L. 94-580, or by July 1, 1979, whichever is earlier, the department shall:

(a) Promulgate, by rule, criteria identical to those promulgated by the U.S. environmental protection agency under s. 3001 (b) of the resource conservation and recovery act of 1976, P.L. 94-580, for identifying the characteristics of hazardous waste and based on use of these criteria, maintain and update a list of wastes identified as hazardous wastes which shall be subject to ss. 144.60 to 144.74. The rules shall require that any person generating or transporting, or owning or operating a facility for treatment, storage or disposal, of any substance which either meets the criteria or is identified as a hazardous waste shall, within 90 days of promulgation of the rule, so notify the department.

(b) Publish a report identifying general areas of the state, based on criteria reported under sub. (1) (c), which may, or may not, be suitable for the establishment of hazardous waste treatment, storage or disposal facilities. This designation shall not operate to preclude specific sites from receiving a license.

(3) The department may, by rule, prohibit particular methods of treatment or disposal of particular hazardous wastes, upon a finding that restrictions on treatment or disposal methods are necessary to protect public health and safety or the environment.

(4) The department may enter into a compact with agencies in other states for the purposes of mutual assistance in the management and regulation of hazardous wastes.

(5) The department may, by rule, exempt from any of the provisions of ss. 144.60 to 144.74 any person who generates wastes which do not present a significant hazard to public health and safety or the environment.

(6) Commencing 5 years after the effective date of this act (1977), the department shall study whether existing hazardous waste management facilities and operations are adequately handling all hazardous wastes within the state, and shall report its findings to the legislature within one year.

(7) In developing requirements for licenses to transport hazardous waste under s. 144.64 (2), the department shall maintain consistency with rules promulgated by the department of transportation.

(8) The department shall adopt rules which prescribe requirements for:

(a) The establishment and maintenance of records.

(b) The making of reports, including the manifest to be used during the transport of hazardous waste.

(c) Sampling and analysis.

(d) Installation, calibration, use and maintenance of monitoring equipment.

(e) The design, construction, operation and closing of sites and facilities for the treatment, storage and disposal of hazardous wastes.

(9) The department, in cooperation with the university of Wisconsin extension and other interested parties, shall develop educational programs and offer technical assistance to persons interested in hazardous waste management.

(10) (a) Rules under sub. (2) (a) shall also establish not less than 2 nor more than 4 classes of hazardous waste and shall assign wastes to a particular class. The classes shall be based upon the relative degrees of hazard posed by the waste. Storage periods defined under s. 144.61 (8) and standards established under ss. 144.60 to 144.74 for facilities which treat, store or dispose of hazardous waste, or equipment which transports hazardous waste, shall recognize and differentiate between the classes of waste the facility or equipment is intended to transport, treat, store or dispose.

(b) In determining the relative degrees of hazard of classes of wastes under par. (a), the department shall consider the following:

1. The amounts of wastes and the concentrations of the harmful or potentially harmful constituents of the wastes;

2. The likelihood of exposure to humans or the environment of the harmful or potentially harmful constituents of the wastes based upon the mobility and stability of harmful constituents, and the biological or chemical conversion of the constituents to other harmful chemicals; and

3. The harm to humans or the environment resulting from the exposure identified under subd. 2 from the harmful constituents.

(11) The department, in cooperation with the solid waste recycling authority, shall report by January 1, 1980, to the legislature on the feasibility of establishing a waste exchange in this state, for the purpose of encouraging the utilization of hazardous wastes for useful purposes. The report shall include at least the following:

(a) A determination of whether there is a need for a waste exchange in this state, including the types of wastes that could be so exchanged;

(b) A discussion of which organizations, if any, should be involved in establishing or operating such an exchange; and

(c) An estimate of the costs of establishing and operating such an exchange.

(12) If facilities or equipment subject to ss. 144.60 to 144.74 are also subject to regulation by the department under other statutes or rules, the department shall integrate its regulatory processes to avoid duplicative or contradictory actions or requirements.

144.63 Generation. Any person generating hazardous waste shall:

- (1) Be responsible for testing programs needed to determine whether any material generated by them is a hazardous waste for purposes of ss. 144.60 to 144.74.
- (2) Keep records that accurately identify:
 - (a) The quantities of hazardous waste generated;
 - (b) The constituents of hazardous wastes which are significant because of quantity or potential harmfulness to human health or the environment; and
 - (c) The disposition of hazardous wastes.
- (3) Label any container used for the storage, transport or disposal of hazardous waste to accurately identify its contents and associated hazards.
- (4) Use appropriate containers for hazardous waste.
- (5) Furnish information on the general chemical composition of hazardous waste to persons transporting, treating, storing or disposing of hazardous wastes, and on any precautions recommended to ensure safe handling of hazardous waste.
- (6) Comply with rules relating to use of a manifest system.
- (7) Submit all required reports.
- (8) Comply with rules relating to notification under s. 144.62 (2) (a).
- (9) Arrange that all wastes generated by them are transported, treated, stored or disposed of at facilities, or by operations, holding a license issued under ss. 144.60 to 144.74 or issued under the resource conservation and recovery act of 1976, P.L. 94-580.

144.64 Licenses. (1) **LICENSE REQUIRED.** (a) Commencing 18 months after the effective date of this act (1977), or 6 months after publication of applicable final regulations required under ss. 3003 to 3005 of the resource conservation and recovery act of 1976, P.L. 94-580, whichever is earlier, no person may store, transport, treat or dispose of any hazardous waste without a license from the department.

(b) Where the application for or compliance with any license required under this section would, in the judgment of the department, cause undue or unreasonable hardship to any person, the department may issue a variance from the requirements of this section, if the variance does not result in undue harm to public health or the environment. In no case may the duration of any variance exceed one year. Renewals or extensions of variances may be given only after opportunity for a public hearing on each variance renewal or extension.

(c) The department may waive compliance with any requirement of this section or shorten the time periods provided under this section to the extent necessary to prevent an emergency condition threatening public health, safety or welfare.

(2) **TRANSPORTATION.** (a) Licenses issued under this section to transport hazardous waste shall require compliance with rules of the department. The rules shall establish standards for the following:

1. Recordkeeping concerning hazardous waste transported, and their source and delivery points.
2. Labeling procedures.
3. Use of a manifest system.
4. Containers used to transport waste.
5. Equipment operator qualifications.

(b) Licenses issued under this section may be denied, suspended or revoked for grievous and continuous failure to comply with the standards adopted under par. (a).

(3) **FACILITIES.** No person may establish or construct a facility to treat, store or dispose of hazardous waste unless the person has complied with s. 144.44. No person may operate any hazardous waste treatment, storage or disposal facility without

having first obtained an operating license as provided in s. 144.44 (4). Any person who operates a hazardous waste disposal site shall pay the fees specified under s. 144.441 (2) (b) or (3) (c).

(4) **LOCAL PERMITS NOT REQUIRED.** No hazardous waste treatment, storage or disposal facility which has been issued a license under this section may be required to obtain local permits or authorizations to operate the facility.

(5) **FEES.** The department shall, by rule, adopt a graduated schedule of reasonable fees to be charged for the direct administration of this section.

144.67 Rules reviewed. Every rule promulgated by the department relating to the hazardous waste management program under this chapter shall be reviewed in accordance with s. 13.565 (3).

144.69 Inspections and right of entry. Any person who generates, stores, treats, transports or disposes of hazardous wastes shall, upon request of any officer or employee of the department, permit the person, at reasonable times and with notice no later than upon arrival, access to premises and records relating to hazardous wastes. Departmental personnel may take samples of hazardous wastes as they deem necessary. Inspections shall be commenced and completed with reasonable promptness. If samples are taken, a receipt for each sample shall be given to the person in charge of the facility, and upon request, half of the sample taken. A copy of the results of any departmental analysis of the sample, if taken, and a copy of the inspection report, shall be promptly furnished to the person in charge of the facility.

144.70 Confidentiality. The department shall prescribe by rule which records, reports or information, if any, obtained from any person under ss. 144.60 to 144.64 and 144.69 to 144.74 shall be confidential. The department shall not divulge any information entitled to protection as a trade secret. This section shall not prevent the department from using records, reports or information in the compilation of summaries and reports, provided that the summaries and reports do not identify any person or reveal any information otherwise confidential under this section.

144.72 Imminent hazard. Upon notice that the handling, treatment, storage, transportation or disposal of any hazardous waste is presenting an imminent and substantial danger to health or the environment, the department may request the department of justice to commence legal proceedings to restrain or enjoin any person from handling, treatment, storage, transportation or disposal presenting an imminent and substantial danger to health or the environment or to take any other action as may be necessary.

144.73 Enforcement. (1) **COMPLIANCE ORDERS.** If the department determines that any person is in violation of any requirement of ss. 144.60 to 144.74, the department shall give written notice to the violator of his or her failure to comply with the requirement and if compliance is not obtained within 30 days after notice or within such reasonable time in which compliance may be accomplished, may issue an order requiring compliance within a specified time period or may refer the matter to the department of justice for enforcement.

(2) **ACTION; DISPOSITION.** The department of justice may initiate the legal action requested by the department under sub. (1) within 30 days of receipt of the written request. In any action commenced by it under this subsection, the department of justice shall, prior to stipulation, consent order, judgment or other final disposition of the case, consult with the department for the purpose of determining the department's views on final disposition. The department of justice shall not enter into a final disposition different than that previously discussed without first informing the department.

(3) **ASSISTANCE OF DISTRICT ATTORNEY.** In any criminal action commenced under s. 144.74, the department of justice may request the assistance of the district attorney of any county in which the violation occurred, and the district attorney shall provide the requested assistance.

(4) **VENUE.** Any action on a violation shall be commenced in the circuit court for the county in which the violation occurred.

144.74 Penalties. (1) The department of justice, upon a referral under s. 144.73, may initiate a civil action for a temporary or permanent injunction for any violation of ss. 144.60 to 144.74, or any rule promulgated under ss. 144.60 to 144.74, or of a term or condition of any license issued under ss. 144.60 to 144.74.

(2) Any person who violates ss. 144.60 to 144.74, or any rule promulgated under ss. 144.60 to 144.74, or any term or condition of a license issued under ss. 144.60 to 144.74, shall be subject to a forfeiture of not more than \$25,000 for each day of violation. The time elapsed prior to the expiration of a compliance order shall not constitute a violation.

(3) Any person who transports any hazardous waste subject to ss. 144.60 to 144.74 to a facility which the transporter knows does not have a license, intentionally disposes of any hazardous waste subject to ss. 144.60 to 144.74 without having obtained a license for disposal of hazardous wastes or intentionally makes any false statement or representation in any application, label, manifest, record, report, license or other document shall, upon conviction, be fined not more than \$25,000 for each day of violation or imprisoned not more than one year in the county jail or both. If the conviction is for a violation committed after a first conviction of the person, the person shall be fined not more than \$50,000 per day of violation or imprisoned not more than 2 years or both.

SECTION 22. 144.76 of the statutes, as affected by chapter 29, laws of 1977, is renumbered 144.58.

SECTION 23. 144.76 of the statutes is created to read:

144.76 Hazardous substance spills. (1) **DEFINITIONS.** As used in this section:

(a) "Discharge" means, but is not limited to, spilling, leaking, pumping, pouring, emitting, emptying or dumping.

(b) "Hazardous substance" has the meaning given under s. 144.30 (10).

(c) "Preventive measures" mean the installation or testing of equipment or devices, a designated way of performing a specified operation or the preparation of an emergency response plan.

(2) **NOTICE OF DISCHARGE.** (a) Persons possessing or controlling a hazardous substance shall immediately notify the department of any discharge not exempted under sub. (9).

(b) Notification received under this section or information obtained in a notification received under this section may not be used against the person making such a notification in any criminal proceedings.

(c) The department shall designate a 24-hour statewide toll-free or collect telephone number whereby notice of any hazardous discharge may be made.

(3) **RESPONSIBILITY.** Persons having possession of or control over a hazardous substance being discharged, or who cause a hazardous discharge, shall take the actions necessary to restore the environment to the extent practicable and minimize the harmful effects from any discharge to the air, lands or waters of this state.

(4) **PREVENTION OF DISCHARGE.** (a) The department may require that preventive measures be taken by any person possessing or having control over hazardous substances when it finds:

1. Preventive action would result in a significant reduction in discharge potential; and

2. Past discharges by this person indicate that the existing control measures are inadequate in preventing discharges.

(b) The department shall specify necessary preventive measures by order. The order shall be effective 10 days after issuance, unless the person named requests a hearing, in which case no order may become effective until the conclusion of the hearing.

(5) CONTINGENCY PLAN. (a) The department shall, after consultation with other affected federal, state and local agencies and private organizations, establish by rule a contingency plan for the undertaking of emergency actions in response to the discharge of hazardous substances.

(b) The contingency plan shall:

1. Provide for efficient, coordinated and effective action to minimize damage to the air, land and waters of the state caused by the discharge of hazardous substances;
2. Include containment, clean-up and disposal procedures;
3. Provide for restoration of the lands or waters affected to the satisfaction of the department;
4. Assign duties and responsibilities among state departments and agencies, in coordination with federal and local agencies;
5. Provide for the identification, procurement, maintenance and storage of necessary equipment and supplies;
6. Provide for designation of persons trained, prepared and available to provide the necessary services to carry out the plan; and
7. Establish procedures and techniques for identifying, containing, removing and disposing of discharged hazardous substances.

(6) HAZARDOUS SUBSTANCES SPILL FUND. (a) The appropriation under s. 20.370 (2) (fz) shall be used in implementing and carrying out the contingency plan developed under sub. (5). This fund shall provide for the procurement, maintenance and storage of necessary equipment and supplies, personnel training and expenses incurred during containment, clean-up and disposal of discharged substances.

(b) No more than 25% of the fund may be used annually for the procurement and maintenance of necessary equipment.

(c) Reimbursements to the department under sub. (7) shall be credited to the hazardous substances spill fund.

(d) Reimbursements to the department under s. 311, federal water pollution control act amendments of 1972, P.L. 92-500, shall be credited to the hazardous substances spill fund.

(7) REMOVAL OR OTHER EMERGENCY ACTION. (a) In every case where action required under sub. (3) is not being adequately taken or the identity of the person responsible for the discharge is unknown, the department or its agent may contain, remove or dispose of the hazardous substance or take any other emergency action which it deems appropriate under the circumstances.

(b) The person causing the discharge shall reimburse the department for actual and necessary expenses incurred in carrying out its duties under this subsection.

(c) The department may, for the protection of public health, safety or welfare, issue an emergency order to the person possessing, controlling or responsible for the discharge of hazardous substances to fulfill the duty imposed by sub. (3).

(8) ACCESS TO PROPERTY. Any duly authorized officer, employee or agent of the department may, upon notice to the owner or occupant, enter any property, premises or place at any time for the purposes of sub. (7) if such entry is necessary to prevent increased damage to the air, land or waters of the state. Notice to the owner or occupant shall not be required if the delay attendant upon providing it will result in imminent risk to public health or safety.

(9) EXEMPTIONS. (a) Any person holding a valid permit under ch. 147 is exempted from the reporting and penalty requirements of this section with respect to substances discharged within the limits authorized by the permit.

(b) Law enforcement officers or members of a fire department using hazardous substances in carrying out their responsibility to protect public health, safety and welfare are exempted from the penalty requirements of this section, but shall be encouraged to report to the department any discharges of a hazardous substance occurring within the performance of their duties.

(c) Any person discharging an air contaminant under a program approved under ch. 144 is exempted with respect to the air contaminant from the reporting and penalty requirements of this section.

(d) Any person applying a registered pesticide according to the label instructions is exempted with respect to the application from the reporting and penalty requirements of this section.

(10) ENFORCEMENT EXCLUSIONS. (a) Any person proceeded against for a violation of this section shall not be subject to penalties under s. 144.74 for the same act or omission.

(b) Any person who discharges a hazardous substance, where the responsibilities for such a discharge are prescribed by statute other than ss. 144.60 to 144.74, shall be subject to the penalty under either this section or the other section but not both.

SECTION 23m. 144.815 of the statutes is repealed.

SECTION 24. 499.15 (3) of the statutes is created to read:

499.15 (3) WASTE EXCHANGE. The authority shall cooperate with the department of natural resources in the preparation of reports dealing with hazardous waste exchanges.

SECTION 25. Report to the legislature. The department of natural resources shall report to the legislature within 18 months after the effective date of this act, or 6 months after publication of applicable final regulations required under ss. 3003 to 3005 of the resource conservation and recovery act of 1976, P.L. 94-580, whichever is earlier, regarding the estimated costs of administering the hazardous waste management program under sections 144.60 to 144.74 of the statutes, as created by this act, and a recommended schedule of fees to replace those adopted by rule under section 144.64 (5) of the statutes, as created by this act, if any.

SECTION 26. Implementation. (1) Not more than 9 months after the effective date of this act, the department of natural resources shall prepare the rules required under section 144.44 (2) (b), (3) (b) and (5) of the statutes, as affected by this act, and notify the appropriate standing committees of each house of the legislature as determined by the presiding officer of each house as required under section 227.018 (2) of the statutes. For a period of 9 months until rules are adopted, the department of natural resources shall determine the information required under section 144.44 (2) (b), (3) (b) and (5) of the statutes, as affected by this act, on a case-by-case basis and continue the license fees at the level in effect on the effective date of this act. All rules promulgated by the department of natural resources relating to the management of hazardous waste pursuant to chapter 144 of the statutes prior to the effective date of this act shall remain in force until modified or rescinded by the department of natural resources pursuant to the promulgation of rules relating to the management of hazardous waste under sections 144.60 to 144.74 of the statutes, as created by this act.

(2) The department of natural resources shall prepare and adopt, with the advice and comment of the metallic mining council established under section 15.347 (12) of the statutes, as created by this act, interim rules for the identification of metallic mining wastes to be regulated as either solid or hazardous wastes and for the location, design, construction and operation and maintenance of the sites and facilities for the disposal of metallic mining wastes and shall keep the rules in effect until such time as final rules are adopted as provided under section 144.43 (1m) of the statutes, as created by this act. The interim rules shall be adopted in accordance with any or all of the following: chapters 30, 144 and 147 and section 107.05 of the statutes.

SECTION 27. Program responsibilities. (1) In the list of program responsibilities specified for the department of justice under section 15.251 (intro.) of the statutes, insert reference to sections "144.441 (3) (d) 2", "144.73" and "144.74".

(2) In the list of program responsibilities specified for the department of natural resources under section 15.341 (intro.) of the statutes, insert reference to section "13.565 (3)".

(3) In the list of program responsibilities specified for the transportation commission under section 15.461 (1) of the statutes, insert reference to section "84.205".

SECTION 28. Appropriation increase. The appropriation to the department of natural resources under section 20.370 (2) (a) of the statutes, as affected by the laws of 1977, is increased by \$255,000 for fiscal year 1978-79 to authorize and fund 12 permanent positions and 2 project positions for fiscal year 1978-79 only for purposes of administering the hazardous and solid waste management program and to pay administrative expenses of the hazardous and solid waste management program as created by this act.

SECTION 29. State and federal funding, positions authorized. (1) From the moneys available under section 20.370 (2) (g) of the statutes, as created by this act, \$125,000 shall be used in fiscal year 1978-79 to fund and authorize 7 permanent positions in the department of natural resources for purposes of administering sections 144.44 and 144.64 of the statutes, as affected by this act, and to pay administrative expenses under sections 144.44 and 144.64 of the statutes.

(2) From the moneys available under section 20.370 (2) (m) of the statutes, as affected by the laws of 1977, \$225,000 shall be used in fiscal year 1978-79 to fund and authorize 9 permanent positions and 3 project positions for 1978-79 only in the department of natural resources for purposes of administering the hazardous and solid waste management program and to pay administrative expenses of the hazardous and solid waste management program as created by this act.

SECTION 29m. Term change. Wherever in the following sections of the statutes the term "mine reclamation council" appears, the term "metallic mining council" is substituted: 144.81 (1), 144.83 (1) (b) and (2) and 144.85 (5) (a).

SECTION 29r. Initial appointments. Of the members first appointed to the metallic mining council under section 15.347 (12) of the statutes, as created by this act, 3 shall be appointed for 3 years, 3 shall be appointed for 2 years, and 3 shall be appointed for one year.

SECTION 30. Cross reference changes. In the sections of the statutes listed in Column A, the cross references shown in Column B are changed to the cross references shown in Column C:

A Statute Sections	B Old Cross References	C New Cross References
20.505 (5)(cc)	144.76	144.58
84.31 (4)(a) 1 and (b)	144.43	144.43 (1)
144.445 (2)(a)	144.44 (2)	144.43 (2)
144.50 (7)	144.43	144.43 (1)

STATUTES AND ADMINISTRATIVE CODES WHICH APPLY
TO THE PREVENTION OF INCIDENTS INVOLVING
HAZARDOUS SUBSTANCES OR SITUATIONS

L. Nuclear Wastes - (PSC)

1. State Statute Chapter 196

a. 196.49 (1)

The Commission must grant a certificate of authority before any plant or facility can commence construction, including nuclear generating plants and associated waste storage.

b. 196.491 (3)

A certificate is required for construction of generating facilities larger than 12 mega watts. This includes nuclear.

c. 196.491 (3) (d) (3)

The design must be in the public interest, considering engineering, safety and environmental factors.

d. 196.491 (3) (d) (7)

A certificate must be in the public interest considering health, safety and environmental factors. This includes the handling of radioactive nuclear fuel and waste.

T. Radiological Control - (H&SS)

1. State Statutes - 140.50 - .60 - The Radiation Protection Act enables the Department to write administrative rules for the control of all ionizing radiation sources. Included in this category are all machine sources (x-ray machines, accelerators) and accelerator-produced radioisotopes and naturally occurring radioisotopes exclusive of the U.S. Nuclear Regulatory Commission licensed material (source by-product and special nuclear materials). These materials subject to State Statutes 140.50 .60 are registered annually and are inspected routinely.

2. Administrative Code - H 57

This specifies the rules and regulations governing the safe use and radiation safety requirements for conforming sources of radiation including machine sources and radium - 226.

Q. Public Safety (Construction of Radiological Facilities) - (PSC)

1. State Statute - 196.745

A Commissioner may order any alteration in construction, operation or maintenance required by public safety. This includes nuclear generation and waste disposal.

2. Administrative Code - 104.04

Reporting by telephone of fatal accidents or explosions causing more than \$1,500 damage is required.

3. Administrative Code - 111.24 (k)

Information on potential impact of abnormal occurrences at proposed nuclear plants must be provided for the advance plan for each of the nine classes of accidents classified by NRC.

APPENDIX C

REPRESENTATIVE LOCAL NEWSPAPER
ARTICLES RELATED TO RADIATION
ISSUES AND RADIOACTIVE
WASTE MANAGEMENT

The Milwaukee Sentinel
Milwaukee, Wisconsin
5/20/80

Gas vented at reactor

Harrisburg, Pa. — Technicians began venting a tiny amount of krypton gas from Three Mile Island Monday, one day before two engineers were to venture into the highly contaminated reactor containment building.

The controlled release of the gas started at 8 a.m. and was to last until 8 a.m. Tuesday.

Carrying air supplies and wearing double layers of protective clothing, William Behrle and Michael Benson planned to enter the facility Tuesday evening and thus become the first humans to venture inside since the reactor was crippled in an accident March 28, 1979.

Behrle and Benson will measure radiation and take photographs inside the containment facility, as well as look for "hot spots" and their causes.

The Wisconsin State Journal
Madison, Wisconsin
5/20/80

Gas is released by Illinois plant

CORDOVA, Illinois (AP) — A "very, very small" amount of radioactive gas was released into the air around the Quad Cities Nuclear Power Station Monday when an operator turned a wrong valve, a spokesman for one of the plant owners said.

Sam Wilson, spokesman for Iowa-Illinois Gas and Electric Co., said the mishap occurred about 5 p.m. when Unit 2 at the Cordova plant was being brought back on line after a shutdown for refueling.

Wilson said the radioactivity in the gas was "2.7 percent of the limit allowed under planned operating conditions."

The operator's error was detected after about 15 minutes when the radioactive monitoring equipment at the plant detected a small increase in radioactivity, the company official said.

The Wisconsin State Journal
Madison, Wisconsin
5/20/80

Nuclear plant gas vented

HARRISBURG, Pa. (AP) — Technicians began venting a tiny amount of krypton gas from Three Mile Island Monday, a day before two engineers are to venture into the highly contaminated reactor containment building.

The controlled release of about .01 of a curie of the gas started at 8 a.m. and was to last until 8 a.m. today.

Carrying air supplies and wearing double layers of protective clothing, William Behrle and Michael Benson plan to enter the building this evening to measure radiation and take photographs as well as look for "hot spots" and their causes.

The Wisconsin State Journal
Madison, Wisconsin
5/18/80

National digest

Location of reactor dump site.

—AP Laserphoto map

Reactor dumped in ocean in '59

WASHINGTON (AP) — There is no danger to the public or the environment from a nuclear submarine reactor dumped into the Atlantic Ocean more than two decades ago, the Navy said Saturday.

In April 1959, the reactor vessel and reactor plant components were removed from the USS Seawolf and dumped 120 miles due east of the Delaware-Maryland line, said Navy Cmdr. Peter Litrenta.

They were sunk in 9,000 feet of water "at a site approved for sea disposal of radioactive waste by the U.S. Atomic Energy Commission," he said.

Litrenta noted the site also was used for several years by other organizations disposing of radioactive waste.

Outer space waste disposal to be studied

WASHINGTON (AP) — The space agency awarded a contract to the Boeing Co. Monday as a first step in determining if nuclear wastes can be rocketed deep into space for disposal.

The \$296,000 contract kicks off a four-year program aimed at learning if potentially dangerous wastes can be fired into eternal orbit about the sun, into another solar system or elsewhere in the universe.

The program is a joint effort by the National Aeronautics and Space Administration and the Department of Energy.

Under the initial contract, Boeing is to evaluate how best to launch nuclear trash — by an unmanned rocket or by a manned space shuttle whose crew would eject it in orbit and propel it farther on. The company also is to figure out where in space to put it; how to protect the payload during launch and in space, and how to retrieve the payload from the ocean bottom or elsewhere if there is an aborted liftoff.

NASA and the Energy Department will decide the next step after Boeing makes its assessment, which is due

next December.

The government says the nation turns out almost 100,000 cubic feet of high- and low-level radiation waste a year, mostly the poisonous by-products of nuclear power, weapons tests and medical research. That may grow to 650,000 cubic feet by the year 2000.

Several questions have been raised as to whether the wastes can be stored anywhere on the planet without risk to humans or the environment. Some storage facilities have been closed by local officials and others are filling up at such a rate that medical research that produces nuclear garbage has been threatened because dumping sites may not be available.

President Carter in February proposed a \$700 million study of salt domes and other sites in the South and West, trying to find the best place to safely deposit stainless steel containers for the thousands of years it takes for the wastes to lose their radiation.

Disposal in space has been considered a possibility for several years, but the Boeing contract is the first time a serious study has been launched.

Soviets may exceed U.S. nuclear power by '85

By Richard Burt
©N.Y. Times News Service

WASHINGTON — American intelligence services have concluded that in the next few years the Soviet Union could achieve an edge over the United States in every major measure of strategic nuclear power, including overall numbers of missile warheads, Carter administration aides said Monday.

The aides said that the projection was one of the principal findings of a national intelligence estimate completed by the Central Intelligence Agency and other government intelligence bureaus. The estimate has been presented to President Carter and is being circulated among high-level policy makers.

According to officials familiar with the document, the Soviet Union, in the absence of the new nuclear arms treaty, could possess a missile arsenal in 1985 capable of delivering as many as 16,000 nuclear warheads against the U.S. Officials estimate that the U.S., in the same year, is likely to have a missile force equipped with about 8,000 warheads.

Some military experts contend that Washington and Moscow possess so many nuclear warheads that comparing numbers does not make much difference. However, American officials have traditionally pointed to Washington's lead in warheads to argue that Moscow has not surpassed the U.S. in strategic power.

Moreover, some academic specialists believe that growth in the numbers of Soviet nuclear warheads in the coming decade could neutralize the administration's plans for building a new mobile missile, the MX.

Proponents of arms control in the White House and the State Department said the estimates demonstrated the importance of approving the strategic arms pact, which would place limits on numbers of Soviet warheads. The treaty, signed June 18, 1979, was before the Senate when the Soviet Union intervened militarily in Afghanistan. The administration then asked that consideration of the pact be postponed as part of its effort to induce Moscow to withdraw its forces.

At the Pentagon, officials said the report strengthened their case for deploying the Air Force's new MX mobile missile, which would give American forces an additional 2,000 warheads in the late 1980s.

The balance in strategic forces has been gradually shifting against the U.S. since the late 1960s, when Moscow initiated programs to deploy new land- and sea-based ballistic missiles. During the 1970s, the Soviets established an edge in such measures of strategic power as overall number of missiles and long-range bombers and the total payload that these systems can carry.

But the U.S., with a larger part of its missile force equipped with multiple warheads, possessed an advantage over the Soviet Union in the 1970s in the number of nuclear weapons that could be delivered by the two sides' forces. Accordingly, in the annual Defense Department report in January, Secretary of Defense Harold Brown said Washington possessed about 8,000 warheads on its land- and sea-based missiles, compared with 6,000 for Moscow.

Officials said that over the next five years the American total was unlikely to change significantly. In 1985, they said, the land-based missile force would be equipped with about 2,100 warheads, while sea-based rockets would carry about 5,700 warheads.

Air Force bombers, they added, could deliver another 3,000 nuclear weapons, consisting of bombs and air-launched cruise missiles.

The intelligence estimate reports that without the new arms pact Moscow could put 11,000 warheads on its existing force of 1,400 land-based missiles and 5,000 additional warheads on its 950 submarine-launched rockets by 1985.

Together with about 1,000 weapons that could be carried by Soviet bombers, the intelligence group's "high estimate" for Soviet warheads in 1985 is 17,000, officials said.

The officials said that if the new arms treaty was ratified, this total could be cut by about half. By placing a ceiling of 820 on land-based missiles equipped with multiple warheads and by freezing numbers of nuclear bombs that could be placed on individual missiles, the new accord, officials said, would permit Moscow to deploy only about 8,500 warheads through 1985.

Commissioner calls NRC hearing 'sham'

By Steven T. Lovejoy
Of The State Journal

In a strongly worded dissent in the dispute over operation of the Point Beach I nuclear power plant, federal Nuclear Regulatory Commissioner Peter Bradford said the NRC's offer of a hearing on the case is a "transparent sham."

Bradford accused the NRC of "a half-meal retreat from meaningful public inquiry" and said its action in the Point Beach case "suggests to the staff and the outside world that the agency is run by people living in fear of their own citizenry."

He said the NRC's restrictions on issues that can be addressed in a hearing will not permit Wisconsin's Environmental Decade to address the safety issues it is concerned with.

He said the hearing procedure is useful only to a utility that wants to argue an NRC order.

"Anyone else seeking to argue the insufficiency of an NRC-imposed remedy must prove that . . . the plant (is) less safe than it had been.

"To a staff that has made significant improvements in recent months, to an industry trying to appraise the seriousness of the post-Three Mile Island requirements, and to a skeptical public, the message can only be that the NRC's priority on citizen involvement is a low one," Bradford said.

Wisconsin's Environmental Decade asked the NRC for a hearing last year after arguing that the degradation in the steam generator tubes of the plant could compromise its safety.

In November, the NRC directed Wisconsin Electric Power Co. to operate the plant under stricter testing conditions, and in January it ordered reduced pressure in the steam generators.

Last week, the NRC told the Atomic Safety and Licensing Board to determine whether a hearing is required. The NRC added that, in keeping with a previous commission decision, the issues will be limited to the question of factual statements in the November order.

The NRC approved the action on a 3-to-2 vote.

Bradford was joined in the dissent by Commissioner Victor Galinsky.

Bradford said the NRC's policy would mandate hearings only if a group was able to "make a reasonable showing that the action taken by the staff had failed to remedy a particular safety concern."

Decade lobbyist Peter Anderson said Monday the Madison-based environmental group would gain nothing from the type of hearing proposed by the NRC.

He said the Decade is considering an appeal to state congressional leaders to put pressure on the NRC to get a hearing on its safety concerns.

Anderson said that approach was successful in a New York case where citizen groups raised concerns over locating a plant near New York City.

The Wisconsin State Journal
Madison, Wisconsin
5/15/80

State can't stop release of radioactive gas

LITTLE ROCK, Ark. (AP) — The attorney general of Arkansas said Wednesday that the state Health Department was acting without authority in its efforts to stop a nuclear power plant from releasing radioactive gas into the atmosphere.

The issue of whether a state agency could override the Nuclear Regulatory Commission arose Tuesday when Arkansas Power & Light Co. defied a state order and began venting radioactive gas at its reactor in Russellville.

The gas had accumulated in the

containment building of Unit 1 of the Arkansas Nuclear One plant after a seal on a reactor coolant pump failed Saturday, releasing about 45,000 gallons of radioactive water into the building.

The utility vented the gas for 66 seconds late Tuesday and planned to release more over the next several days.

Dr. Robert Young, director of the state Health Department, on Tuesday ordered the utility to delay the release 48 hours, saying he wanted an independent analysis of the gas.

AP&L officials delayed the release a few hours and then proceeded with the plan, armed with an approval from the NRC.

"The question really is where does the final authority lie in regulation of nuclear energy," said AP&L President Jerry L. Maulden. "Our understanding is that it lies with the NRC."

"In the final analysis, it's difficult to have more than one master. The one agency designated by law, by Congress, is the NRC. If you move away from that, you move into a no-man's land."

The Wisconsin State Journal
Madison, Wisconsin
5/12/80

Water floods reactor building

RUSSELLVILLE, Ark. (AP) — Arkansas Power & Light Co. said Sunday it will take at least three weeks to clean up a nuclear plant that shut down when up to 50,000 gallons of radioactive water flooded the basement of a reactor building.

Utility officials and inspectors from the Nuclear Regulatory Commission emphasized the public had not been endangered by the accident Saturday and no radioactivity had escaped into the atmosphere.

Jammed door foils entry into A-plant

HARRISBURG, Pa. (AP) — A planned entry into the damp, radiation-soaked building housing a damaged reactor at the Three Mile Island nuclear power plant had to be canceled Tuesday night because of a stuck door, officials said.

"It's been aborted," said John Collins, on site chief for the Nuclear Regulatory Commission.

A door leading to the containment building jammed and two volunteer engineers were unable to open it despite repeated efforts, according to a spokesman for Metropolitan Edison Co., the plant operator.

No one has entered the building since it was severely contaminated in the nation's worst commercial nuclear power accident nearly 14 months ago.

Plans had called for William Behrle and Michael Benson to stay inside the building 15 minutes, measuring radiation levels, taking samples and taking pictures if possible.

Plant officials and officials of the Nuclear Regulatory Commission had been ready to monitor the visit via closed circuit television and radios.

The two men, both volunteer employees of Met Ed, were equipped with double layers of protective clothing and two air sources each — a primary 30-minute air supply and a seven-minute backup.

The mission was intended to help Met Ed plan future cleanup and main-

tenance of the damaged Unit 2 reactor, which has not been serviced since the March 28, 1979, accident.

The engineers were to walk onto a concrete floor 24 feet above the basement level. The floor, serving as a radiation shield, would prevent the men from seeing the mangled reactor and about 600,000 gallons of contaminated water on the containment building floor.

Despite the protective gear, plant operators estimated the men would receive radiation exposures of 1,000 millirems. Federal regulations permit doses of up to 3,000 millirems per quarter year.

Earlier Tuesday, technicians completed a 25-hour controlled purge of less than 0.01 curies of radioactive krypton gas from a 9-by-12 foot airlock leading to the containment building.

The exit of the two men would have required the release of additional krypton gas.

The two engineers were selected from a pool of volunteers because of their expertise, said Met Ed spokesman Dave Delzingaro.

Behrle, a 36-year-old mechanical engineer, has been with Met Ed for 12 years. The Middletown bachelor is a senior engineer at TMI.

Benson, 27, a nuclear engineer and lead engineer at Unit 2, joined the Three Mile Island staff in 1974. He lives with his wife on a 10-acre horse farm in Lancaster County.

State told not to accept waste site

Associated Press

Wisconsin should not accept a site for any other state's nuclear waste until the safety of disposal technology is conclusively shown, a state committee was told Thursday.

The federal government intends to locate nuclear waste dumps in the states that "squeak the least," Wisconsin's Environmental Decade said.

The state does not have a "moral responsibility" to accept a nuclear waste disposal site as a result of its heavy dependence on nuclear power, the group said, because nuclear plants were built "under (the) false pretense" that nuclear waste disposal problems were readily solved.

Gov. Lee Dreyfus has said Wisconsin has a moral obligation to accept the disposal of nuclear waste, but the governor referred only to nuclear waste produced by the state's power

Rep. Lloyd Kincaid

plants, William Kraus, his communications director, said.

Rep. Lloyd Kincaid, D-Crandon, has accused Dreyfus of encouraging the choice of Wisconsin for a nuclear waste dump by not vigorously opposing one.

Kincaid has drafted a resolution

expressing the Legislature's opposition to a nuclear waste site in Wisconsin and is attempting to have it debated in the special session that convenes June 3.

Wisconsin is among the states being considered for six regional nuclear waste dumps because of their underlying old, stable bedrock.

The Decade's testimony to the State Interagency Radioactive Waste Committee was delivered by Peter Anderson, public affairs director of the 700-member group.

"The DOE has one cardinal siting criterion, and that is: which state will squeak the least," Anderson said. "It is obvious that the agency views its mission as finding and readying a site as soon as possible whether or not the technology to safely dispose of long-lived radioactive wastes has been developed."

Anderson asked the committee to express its opposition to a nuclear waste dump in the state to the DOE and tell Washington "that Wisconsin was squeaking loudly."

If the state is not successful in blocking construction of a regional nuclear waste dump until safety is assured, it should at least refuse to accept waste from any state that has not declared a moratorium on new nuclear power plants, Anderson said.