

STUDY OF THE HAZARDOUS MATERIALS
MANAGEMENT COMMITTEE ON
CHEMICAL, TOXIC AND LOW-
LEVEL RADIOACTIVE
WASTES



Bulletin No. 87-4

LEGISLATIVE COMMISSION
OF THE
LEGISLATIVE COUNSEL BUREAU
STATE OF NEVADA

August 1986

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LEGISLATIVE COMMISSION
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LEGISLATIVE COUNSEL BUREAU

STATE OF NEVADA

AUGUST 1986

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RESOLUTION

LEGISLATIVE COMMISSION RESOLUTION - Creating a subcommittee to conduct an interim study of the history, rules and procedures for the transportation, handling, storage, emergency response and disposal of hazardous materials (chemical, toxic and low-level radioactive waste).

WHEREAS, Continuing progress in technology and the resulting increases in manufacturing activity have given rise to larger quantities of hazardous materials; and

WHEREAS, Human health, public safety and the environment are threatened when hazardous materials are not managed in a sound, responsible manner; and

WHEREAS, Knowledge and technology necessary to mitigate adverse effects on health, safety and the environment from the lack of proper management of hazardous materials is available but not uniformly applied; and

WHEREAS, The problem of managing hazardous materials, including transportation, packaging, storage - long and short-term, disposal and long-term perpetual care of hazardous waste, has become a matter of concern to the entire State of Nevada; and

WHEREAS, The recent proposal to offload low-level radioactive waste in the City of Las Vegas for transport to the Beatty waste disposal facility illustrates that procedures used in handling hazardous materials in this state may not be adequate; now therefore, be it

RESOLVED, By the LEGISLATIVE COMMISSION OF THE STATE OF NEVADA that an interim subcommittee is hereby appointed and directed to conduct an interim study of the history, rules and procedures for the transportation, handling, storage, emergency response and disposal of hazardous materials (chemical, toxic and low-level radioactive waste) and other matters relating to the management of hazardous materials and wastes generated by those materials; and be it further

RESOLVED, That the LEGISLATIVE COMMISSION OF THE STATE OF NEVADA select a chairman and vice-chairman of the interim subcommittee entitled "hazardous materials management committee on chemical, toxic and low-level radioactive wastes"; and be it further

RESOLVED, That the subcommittee report the results of the study and any recommendations to the legislative commission.

Adopted 9/13/85.

REPORT OF THE LEGISLATIVE COMMISSION

TO THE MEMBERS OF THE 64TH SESSION OF THE NEVADA LEGISLATURE:

This report is submitted in compliance with the legislative commission's directive, under the auspices of the joint committee on human resources, appointing a hazardous materials management committee to study chemical, toxic and low-level radioactive wastes. The members of the committee were:

Assemblyman James W. Schofield, Chairman
Senator Lawrence E. Jacobsen, Vice Chairman
Assemblyman Joseph E. Dini, Jr.

In this report, the committee has attempted to present its findings and recommendations in a concise form. A great deal of data and information was gathered in the course of the study. All of the supporting documents and minutes of the committee's hearings are on file with the research library of the legislative counsel bureau and are available for review.

This report is transmitted to the members of the 64th session of the Nevada legislature for their consideration and appropriate action.

Respectfully submitted,

Legislative Commission
Legislative Counsel Bureau
State of Nevada

Carson City, Nevada
August 1986

LEGISLATIVE COMMISSION

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Assemblyman Bob L. Kerns, Vice Chairman

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Senator Heln A. Foley	Assemblyman James W. Schofield
Senator Lawrence E. Jacobsen	Assemblyman Danny L. Thompson
Senator Kenneth K. Redelsperger	Assemblyman Barbara L. Zimmer
Senator Sue Wagner	

SUMMARY OF RECOMMENDATIONS

The committee adopted the following recommendations:

1. Support funding to the public service commission of Nevada (PSCN) to hire additional staff to work on hazardous materials issues.
2. Amend the prenotification requirement of Nevada Revised Statutes (NRS) 706.441, "Permit required unless exempted; duties and liabilities of carrier; revocation of certificate and permit for noncompliance," to state the Nevada highway patrol division (NHP), department of motor vehicles and public safety (DMV&PS), is to be notified in addition to the PSCN, prior to transporting radioactive wastes through Nevada. The NHP is also to be notified prior to transporting hazardous materials through Nevada. (BDR 40-199)
3. Enact a resolution encouraging the DMV&PS and the PSCN to enter into a Memorandum of Agreement with the Federal Government in which the Federal Government would agree to notify Nevada when hazardous materials enter the state. (BDR 198)
4. Require carriers transporting hazardous materials to obtain an annual or temporary license or permit prior to transporting such materials in Nevada. Further, the penalties for violations should be specified as follows:
 - Up to \$10,000 for civil penalties; and
 - Up to \$25,000 for criminal penalties.(BDR 40-199)
5. Require Nevada's department of transportation (NDOT) to conduct a risk analysis to determine the safest intrastate routes to transport hazardous materials. (BDR 40-197)
6. Require the NDOT to work with the county regional transportation commissions in determining an intrastate routing system. (BDR 40-197)
7. Require the NDOT to designate and coordinate an intrastate routing plan. (Route could be printed in the State of Nevada Hazardous Materials Operation Plan. (BDR 40-197)

8. Require the NDOT to work with regional, interstate organizations to develop interstate routing plans. (BDR 40-197)
9. Enact a resolution urging the State of Nevada to work with regional, interstate organizations on issues regarding the transportation of hazardous materials. (BDR 192)
10. Require the State of Nevada to impose a permit fee on hazardous materials being shipped across Nevada. The amount of the permit fee should be determined by the 1987 legislature. (BDR 40-199)
11. Provide funding to increase hazardous material training and equipment resources in Nevada. (BDR 40-199)
12. Enact a resolution urging the State of Nevada to work with the Federal Government and with Western regional organizations to establish a Western regional training center located at Stewart, Nevada. (BDR 193)
13. Enact a resolution encouraging the Federal Government to set strict requirements regarding driver training, placarding and tracking technologies. (BDR 194)
14. Require that all spills or incidents involving hazardous materials be reported immediately. (BDR 40-196)
15. Require the division of emergency management, department of the military, to establish and provide one telephone number to call if an accident occurs. (BDR 40-196)
16. Require the division of emergency management, department of the military, to implement a uniform hazardous material and waste spill notification and reporting procedure. (BDR 40-196)
17. Define "hazardous materials" in the Nevada Revised Statutes using the same definition adopted by the United States Department of Transportation in the Code of Federal Regulations. (BDR 0-195)
18. Identify the hazardous waste inventories in Nevada and include this information in the committee's report to the legislative commission.

REPORT TO THE 64TH SESSION OF THE NEVADA LEGISLATURE BY THE
LEGISLATIVE COMMISSION'S HAZARDOUS MATERIALS MANAGEMENT
COMMITTEE ON CHEMICAL, TOXIC AND LOW-LEVEL
RADIOACTIVE WASTES

I. INTRODUCTION

On September 13, 1985, the legislative commission appointed a hazardous materials management committee to study chemical, toxic and low-level radioactive wastes in Nevada.

The committee held a total of three meetings. The first meeting was held in Carson City, Nevada. Topics included an overview of Nevada's hazardous and low-level radioactive waste programs, the State of Nevada Hazardous Materials Operations Support Plan, the emerging role of the public service commission of Nevada (PSCN) and an overview of related transportation problems and regulations. The second meeting was held in Las Vegas, Nevada, and focused on federal programs in the state, an overview of local government concerns and the emergency management program in southern Nevada. At the third meeting, which was held in Carson City, the committee conducted a work session and compiled its recommendations.

II. DISCUSSION OF FINDINGS AND RECOMMENDATIONS

A. TRANSPORTATION

1. Public Service Commission of Nevada (PSCN)

a. Additional Staff

The committee heard testimony from the PSCN regarding its emerging role in regulating the transportation of hazardous materials by railroad. On November 26, 1985, the PSCN adopted General Order No. 52 which expands the scope of the agency's jurisdiction to regulate hazardous materials. The PSCN's goal in adopting this regulation is to establish consistent statewide procedures for loading and temporarily storing hazardous materials and radioactive wastes.

Based on the PSCN's additional responsibilities in regulating the transportation of hazardous materials, the committee supports increased funding to the PSCN to hire additional staff to work on hazardous materials issues.

b. Prenotification Requirement

The committee heard testimony regarding the prenotification requirement of Nevada Revised Statutes (NRS) 706.441, "Permit required unless exempted; duties and liabilities of carrier; revocation of certificate and permit for noncompliance."

Present law requires that only the PSCN be notified before a person transports radioactive wastes through Nevada. However, the Nevada highway patrol division (NHP), department of motor vehicles and public safety (DMV&PS), is also notified of all shipments which are made during regular working hours. In addition, the NHP is exclusively notified of all shipments entering the state after 5 p.m., Monday through Friday, and during weekend hours.

In order to clarify this situation, the committee approved a recommendation that NRS 706.441 be amended to state that the NHP and the PSCN be notified before radioactive waste is transported through Nevada. The committee also recommends that the NHP is to be notified prior to the transportation of hazardous materials through Nevada.

Testimony before the committee indicated that the Federal Government would not agree to prenotification of shipments classified under national security. The committee recommends enacting a resolution encouraging the DMV&PS and the PSCN to enter into a Memorandum of Agreement with the Federal Government in which the Federal Government would agree to notify Nevada when hazardous materials enter the state.

2. Department of Motor Vehicles and Public Safety (DMV&PS)

The committee considered a recommendation to require the DMV&PS to coordinate the transportation and enforcement of hazardous materials within Nevada. Based upon NRS 706.173, "Prenotification of commission and department concerning safety and transportation of hazardous materials," the committee felt this issue was being addressed. Accordingly, no action was taken by the committee.

3. License or Permit to Transport

The committee received a great deal of testimony regarding safety precautions in the transportation of hazardous and

radioactive materials. An issue of special concern to the committee is knowledge of the composition of materials being transported through Nevada. If an accident or spill occurs, the first responders must know how to safely and effectively contain the incident. Also important is knowing in advance when these materials will be moving across the state.

For these reasons, the committee recommends that carriers transporting hazardous materials be required to obtain an annual or temporary license or permit prior to transporting such materials in Nevada. Testimony from the NHP indicated that administration of a permit program could most effectively be handled by the DMV&PS. It is the committee's intent to establish stringent sanctions for violators. Therefore, the committee recommends the penalties for violations be specified as follows:

Up to \$10,000 for civil penalties; and

Up to \$25,000 for criminal penalties.

4. Routing

An issue raised by several local government representatives is the importance of determining the safest transportation routes for hazardous and radioactive materials. With the exception of Clark County, Nevada, carriers currently may use any road or highway in Nevada to transport hazardous or low-level radioactive materials. By establishing a routing system, state and local officials can more effectively monitor shipments of hazardous materials in Nevada. The public's health and safety is thereby better protected from hazardous material spills or accidents.

Based on these concerns, the committee recommends that Nevada's department of transportation (NDOT) conduct a risk analysis to determine the safest intrastate routes to transport hazardous materials. In establishing routing schemes, the committee recommends that the NDOT work with county regional transportation commissions. Once the risk analysis is completed, the committee recommends that the NDOT designate and coordinate an intrastate routing plan.

The committee suggests that this plan be printed in the State of Nevada Hazardous Materials Operations Support Plan. Further, the committee recommends that the department of transportation work with regional interstate organizations to develop interstate routing plans.

5. Interstate Organizations

The transportation of hazardous and low-level radioactive materials is an issue which affects all states. Citing the

importance of working with other states, the committee recommends enacting a resolution urging the NDOT to work with regional, interstate organizations on issues relating to the transportation of hazardous materials. Organizations identified include (but are not limited to):

The National Association of Regulatory Utility Commissioners' Committee on Electricity, Subcommittee on Nuclear Waste Disposal;

The National Association of Regulatory Utility Commissioners' Committee on Transportation;

The Rocky Mountain Low-Level Radioactive Waste Board;

The Western Governors Association; and

The Western Interstate Energy Board.

6. Fees

The committee heard testimony regarding the rising costs of monitoring the transportation of hazardous materials. Also discussed was the amount of money required for cleanup after a spill or hazardous materials incident. Citing the need for additional training and equipment resources, the committee recommends imposing a permit fee on hazardous materials being shipped across Nevada. The committee further recommends that the amount of the permit fee be determined by the 1987 legislature.

B. TRAINING AND EQUIPMENT

Representatives from the division of emergency management of the department of the military and personnel from fire departments testifying before the committee strongly recommended the adoption of a training program in Nevada for first responders to a hazardous materials incident. Testimony indicated that some responders had received a limited amount of training. Due to the danger involved in responding to a hazardous materials incident, it was the overwhelming consensus of those testifying that a formal training program be implemented in Nevada. Of particular concern are the many volunteer fire personnel, mainly in the rural areas, who have had little or no experience dealing with hazardous materials.

The committee therefore recommends that funding be provided to increase hazardous materials training and equipment resources in Nevada. The equipment and training are to be funded through the transportation user fees also recommended by the committee. It is the committee's intent to provide

necessary equipment and training for volunteer fire department and ambulance service personnel who will be the first responders to a hazardous materials incident in the rural areas.

Regarding training facilities, testimony before the committee indicated that an Eastern training center is located in Maryland. Presently, there are facilities at Stewart, Nevada, which could be utilized for a Western training center. Such a center would be an invaluable training resource for Nevada and the other Western States as well as make better use of the existing facilities at Stewart. The committee recommends enacting a resolution urging the State of Nevada to work with the Federal Government and with Western regional organizations to establish a Western regional training center at Stewart, Nevada.

In testimony to the committee, it was recommended to establish minimum training standards for the State of Nevada, identify local training resources and inform certain Nevada residents of any available training programs. The committee determined that these concerns are being addressed in the State of Nevada Hazardous Materials Operations Support Plan. Accordingly, no action was taken on these recommendations.

A recommendation was made to the committee to require the State of Nevada to set strict requirements regarding driver training, placarding, and tracking technologies. The committee believes this area is presently subject to regulation by the Federal Government. However, believing these concerns to be important to the safety and well-being of the residents of Nevada, the committee recommends enacting a resolution encouraging the Federal Government to set strict requirements regarding driver training, placarding and tracking technologies. Further, the committee believes it is a carrier's responsibility to train its drivers. Without a certificate of training from the carrier, the committee does not believe that a permit to transport hazardous materials across Nevada should be issued.

C. CENTRALIZED STATEWIDE DATA AND INFORMATION SYSTEM

The committee heard testimony in favor of creating a centralized statewide information system and developing a statewide computer link. It was determined that these issues currently are being addressed by the division of emergency management, department of the military. Therefore, the committee recommends that no further action be taken on these two proposals.

D. SPILL NOTIFICATION AND CLEANUP

1. Reporting

The importance of promptly reporting a hazardous material spill was conveyed to the committee by representatives of the Washoe District Health Department. Testimony indicated that efficient response to a hazardous material spill greatly reduces the danger to the public's health and safety. Containment of the spill and cleanup are also accomplished more efficiently if the proper authorities are quickly notified after an accident.

Based on these considerations, the committee recommends requiring that all incidents or spills of hazardous materials be reported immediately. It is suggested that this requirement be included in the State of Nevada Hazardous Materials Operations Support Plan that is being prepared by the division of emergency management. The committee also recommends that the division of emergency management establish and provide one telephone number to call if a hazardous materials incident occurs.

Further, the committee recommends that the division of emergency management be required to implement a uniform hazardous material and waste spill notification and reporting procedure. It is the committee's intent that the carrier, or his representative, be responsible for reporting a hazardous material incident.

2. Funding

A recommendation was made to create a state "superfund" to provide cleanup resources for local governments if spills should occur. Representatives of the division of emergency management and personnel from various fire departments testified regarding the high costs of cleaning up after a hazardous materials spill. It was suggested to the committee that this fund be operated in the same manner as Nevada's "fire suppression fund."

The committee favors the concept of a "superfund" or "contingency fund" and suggests that the 1987 legislature consider means to appropriate money for such a program. The committee believes that one agency should be responsible for allocating money from this "superfund." That agency also should be responsible for recovering funds from liable parties and returning those resources to the contingency fund.

3. Cleanup

The committee heard testimony regarding regional, intrastate cleanup teams to assist in rural areas. Presently, there

are three such teams in Nevada located in Carson City, Clark and Washoe counties. A representative of the division of environmental protection, state department of conservation and natural resources, testified that his office recommended to the division of emergency management that contractors in the three regions noted above should be available to identify the hazardous materials and cleanup required after an incident. Further, the division of environmental protection recommended that the regional teams train rural Nevadans only in regard to first response operations.

Based on the foregoing, the committee supports regional intrastate cleanup teams designed to assist in rural portions of Nevada. Further, the committee believes this issue should be addressed in both the Hazardous Waste Management Plan and the State of Nevada Hazardous Materials Operations Support Plan.

E. DEFINING HAZARDOUS MATERIALS

Testimony was presented to the committee regarding the confusion of defining "hazardous materials." At the committee's request, its legal counsel compiled an extensive listing of federal and state definitions of hazardous materials and wastes. This listing is attached as Appendix A.

After considering testimony regarding definitions, the committee recommends defining hazardous materials in the Nevada Revised Statutes in the same manner as the United States Department of Transportation (USDOT) defines them in the Code of Federal Regulations (CFR). In 49 CFR 171.8, "hazardous material" is defined as:

Substance or material which has been determined by the Secretary of Transportation to be capable of posing an unreasonable risk to health, safety and property when transported in commerce and which has been so designated.

A list of the material designated as hazardous by the USDOT is contained in the table for 49 CFR 172.

F. LIABILITY INSURANCE

A recommendation was made to develop a state liability program for hazardous materials and wastes and low-level radioactive wastes. This program would provide insurance coverage to local entities in the event of a hazardous material or radioactive spill or accident. The committee discussed the problem of local governments obtaining general liability insurance. The committee was advised that the legislative commission directed the research division of the legislative counsel bureau to compile comprehensive information concerning the issue of liability insurance in preparation for the 1987 legislative session.

In response to the committee's request, the risk management division, department of administration, investigated the possibility of establishing an insurance pool for local governments to obtain general liability insurance. It is the opinion of the risk management division that "the state could not afford to take on the unlimited liability for cleanup and compensation for damages due to a hazardous waste [spill]." However, a limited program which includes contributions from private landfill operations and "caps" on claims was suggested as one possibility. The complete text of the findings of the risk management division is attached as Appendix B.

G. HEALTH AND EDUCATION

The committee considered testimony regarding funding to counties for additional staff at district health departments to work on hazardous materials issues. A representative of the division of environmental protection, state department of conservation and natural resources, testified that the Hazardous Waste Management Plan addresses this subject as it relates to hazardous wastes. The committee took no further action on this issue.

A recommendation was made requesting state and local governments to work together to educate the public regarding hazardous materials and wastes. The committee noted that national organizations will also be developing programs for schools, service clubs and other groups. For more information regarding education programs, see Plan For A Public Information Program - Nuclear Waste Project Office, May 1985 (Appendix C) and The Public Involvement Manual, January 1981 (Appendix D).

H. HAZARDOUS WASTE INVENTORIES IN NEVADA

Discussion regarding the hazardous waste inventory in Nevada was heard by the committee. It was requested that this information be supplied to the committee and be included in the final report to the legislative commission. Attached as Appendix E is a copy of the "Nevada Hazardous Waste Report - 1985" which lists the hazardous waste inventory in Nevada for 1985.

I. STATE OF NEVADA HAZARDOUS MATERIALS OPERATIONS SUPPORT PLAN

The State of Nevada hazardous materials committee and the division of emergency management worked together to prepare the State of Nevada Hazardous Materials Operations Support Plan. The final draft of the plan was completed in June 1986. The plan is comprised of the following:

1. A statewide telephone directory listing federal and state agencies, private industries and volunteer organizations responsible for or interested in hazardous materials response;
2. An explanation of the basic plan, including its purpose and scope;
3. A listing of all participating federal and state agencies and private organizations within Nevada;
4. A discussion of preparation resources and training considerations and programs; and
5. A detailed outline of response support procedures. Categories included are:
 - a. Chemical/pesticides/poisons;
 - b. Explosives/flammables;
 - c. Oil spills; and
 - d. Radiological.

Also addressed are cleanup and disposal procedures.

The committee heard testimony regarding several issues discussed in the State of Nevada Hazardous Materials Operations Support Plan, including first responders critiquing their actions and the need to identify the responsible local government representative if a spill should occur. Because the plan addresses both of these points, the committee took no further action. Attached as Appendix F is a copy of the State of Nevada Hazardous Materials Operations Support Plan.

J. HAZARDOUS WASTE MANAGEMENT PLAN

The division of environmental protection is preparing a state Hazardous Waste Management Plan. Representatives of the division of environmental protection testified that this plan should be completed by August 1986. Further, testimony regarding the comprehensive nature of the plan was considered by the committee.

Specific recommendations made to the committee included:

1. Development of a comprehensive hazardous materials plan;
2. Permitting the establishment of an organic liquid disposal site;

3. Allowing hazardous waste treatment and disposal facilities to be built in Nevada and to accept out-of-state wastes;
4. Hiring additional analysis, enforcement and inspection personnel; and
5. Urging the state and local governments to coordinate the improvements of existing hazardous materials facilities.

Because testimony indicated that the Hazardous Waste Management Plan will be addressing these concerns, the committee took no further action on these proposals. Attached as Appendix G is a letter from the program director of the waste management section of the division of environmental protection outlining how the plan was formulated and the areas to be addressed in the plan.

III. CREDITS

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APPENDIX A

Information provided by the legal division of the legislative counsel bureau regarding definitions of hazardous and radioactive wastes and materials.

APPENDIX A

STATE AND FEDERAL STATUTES AND REGULATIONS DEFINING
HAZARDOUS SUBSTANCES, HAZARDOUS MATERIALS, RADIOACTIVE
WASTES AND HAZARDOUS WASTES

RADIOACTIVE WASTE OR MATERIAL

FEDERAL STATUTES

Nuclear Waste Policy Act

42 U.S.C. 1010 (12) -- "high-level radioactive waste" defined:

(A) Highly radioactive material resulting from reprocessing of spent nuclear fuel, including liquid waste directly produced in reprocessing, and any solid material derived from those liquid wastes that contain fission products in sufficient concentration; and

(B) Other highly radioactive material that the NRC, consistent with existing law, determines by rule as requiring permanent isolation. (See 10 C.F.R. 60.2 below).

42 U.S.C. 10101 (16) -- "low-level radioactive waste" defined:

(A) Is not high-level radioactive waste, spent nuclear fuel, transuranic waste or byproduct material as defined in 42 U.S.C. 2014(e)(2); and

(B) The NRC, consistent with existing law, classified as low-level radioactive waste. (See 10 C.F.R. 61.55 below).

Low-Level Radioactive Waste Policy Act

42 U.S.C. 2021b(9) -- "low-level radioactive waste" defined:

(A) Is not high-level radioactive waste, spent nuclear fuel or byproduct material as defined in 42 U.S.C. 2014(e)(2); and

(B) The NRC, consistent with existing law and in accordance with paragraph (A), classifies as low-level radioactive waste. (See 10 C.F.R. 61.55 below).

42 U.S.C. 2021c:

Sets forth a state's responsibility for disposing of low-level radioactive waste consisting of or containing class A, B or C radioactive waste. (See 10 C.F.R. 61.55 below).

Atomic Energy Act

42 U.S.C. 2014(e)(2) -- "byproduct material" defined:

The tailings or wastes produced by the extraction or concentration of uranium or thorium from any ore processed primarily for its source material content.

FEDERAL REGULATIONS

NRC

- 10 C.F.R. 60.2 -- "high-level radioactive waste" defined:
- (1) Irradiated reactor fuel;
 - (2) Liquid wastes resulting from the operation of the 1st cycle solvent extraction system, or the equivalent, and the concentrated wastes from subsequent extraction cycles, or the equivalent, in a facility for reprocessing irradiated reactor fuel; and
 - (3) Solids into which such wastes have been converted.
- 10 C.F.R. 61.55 -- Waste classifications for low-level radioactive waste. (See attachment A).
- 10 C.F.R. 61.56 -- Waste characteristics for low-level radioactive waste. (See attachment A).

STATE STATUTES

Rocky Mountain Low-Level Radioactive Waste Compact
NRS 459.007, Article 2, § 6 -- "low-level waste" or "waste" defined:

- ... radioactive waste, other than:
- (1) Waste generated as a result of defense activities of the Federal Government or federal research and development activities;
 - (2) High-level waste such as irradiated reactor fuel, liquid waste from reprocessing irradiated reactor fuel, or solids into which any such liquid waste has been converted;
 - (3) Waste material containing transuranic elements with contamination levels greater than 10 nanocuries per gram of waste material;
 - (4) By-product material as defined in section 11 e. (2) of the Atomic Energy Act of 1954, as amended on November 8, 1978; or [42 U.S.C. 2014(e)(2)]
 - (5) Wastes from mining, milling, smelting, or similar processing of ores and mineral-bearing material primarily for minerals other than radium;

State Control of Radiation (administered by health division).
NRS 459.010, § 1 -- "by-product material" defined:

- (a) Any radioactive material, except special nuclear material, yielded in or made radioactive by exposure to the radiation incident to the process of producing or making use of special nuclear material; and

(b) The tailings or wastes produced by the extraction or concentration of uranium or thorium from any ore which is processed primarily for the extraction of the uranium or thorium.

NRS 459.010, § 4 -- "ionizing radiation" defined:

... gamma rays and X-rays, alpha and beta particles, high-speed electrons, neutrons, protons and other nuclear particles, but not sound or radio waves, or visible, infrared or ultraviolet light.

NRS 459.010, § 6 -- "source material" defined:

(a) Uranium, thorium or any other material which the governor declares by order to be source material after the Nuclear Regulatory Commission or any successor thereto has determined that material to be source material.

(b) Any ore containing one or more of the materials enumerated in paragraph (a) in such concentration as the governor declares by order to be source material after the Nuclear Regulatory Commission or any successor thereto has determined the material in the concentration to be source material.

NRS 459.010, § 7 -- "special nuclear material" defined:

(a) Plutonium, uranium 233, uranium enriched in the isotope 233 or in the isotope 235 and any other material which the governor declares by order to be special nuclear material after the Nuclear Regulatory Commission or any successor thereto has determined such material to be special nuclear material, but does not include source material.

(b) Any material artificially enriched by any of the materials enumerated in paragraph (a), but does not include source material.

STATE REGULATIONS

State Board of Health - Licensing

NAC 459.076 -- "Radioactive material" defined:

Any solid, liquid or gaseous material which emits radiation spontaneously.

NAC 459.182 to 459.192, inclusive:

Exemptions from licensing requirements.

State Board of Health - Disposal of radioactive material

NAC 459.8055 -- "waste" defined:

Same as meaning ascribed to it in § 6 of Article 2 of Rocky Mountain Low-Level Radioactive Waste Compact in NRS 459.007.

NAC 459.8265 to 459.829, inclusive:

Classification of radioactive wastes.

Adoption by reference of 49 C.F.R. 171 to 177, inclusive and 10 C.F.R. 71.

HAZARDOUS SUBSTANCES

FEDERAL STATUTES

Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) -- "Superfund" legislation.

42 U.S.C. 9601(14) -- "hazardous substance" defined:

(A) Any substance designated pursuant to 33 U.S.C. 1321(b)(2)(A); (B) any element, compound, mixture, solution or substance designated pursuant to 42 U.S.C. 9602; (C) any hazardous waste having the characteristics identified under or listed pursuant to 42 U.S.C. 6291; (D) any toxic pollutant listed under 33 U.S.C. 1317(a); (E) any hazardous air pollutant listed under 42 U.S.C. 7412; and (F) any imminently hazardous chemical substance or mixture with respect to which the Administrator (of EPA) has taken action pursuant to 15 U.S.C. 2606. The term does not include petroleum, including crude oil or any fraction thereof which is not otherwise specifically listed or designated under subparagraphs (A) to (F), inclusive, of this paragraph, natural gas, natural gas liquids, liquified natural gas or synthetic gas usable for fuel (or mixture of natural gas and such synthetic gas).

42 U.S.C. 9602:

Administrator of EPA required to adopt regulations defining hazardous substances. (See 40 C.F.R. 302.4 below).

Water Pollution Control Act

33 U.S.C. 1317(a):

Administrator of EPA required to adopt list of toxic pollutants. (See 40 C.F.R. 129.4 below).

33 U.S.C. 1321(b)(2)(A):

Administrator of EPA required to adopt regulations designating hazardous substances, excluding oil. (See 40 C.F.R. 116.4 below).

Air Pollution Control

42 U.S.C. 7412(a) -- "hazardous air pollutant" defined:

An air pollutant to which no ambient air quality standard is applicable and which in the judgment of the Administrator of the EPA causes, or contributes to air pollution which may reasonably be anticipated to result in an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness.

42 U.S.C. 7412(b):

Administrator of EPA required to adopt list of hazardous air pollutants for which he intends to establish emission standards. (See 40 C.F.R. 61.01 to 61.247, inclusive, below).

Toxic Substances Act

15 U.S.C. 2505(f) -- "imminently hazardous chemical substance or mixture" defined:

A chemical substance or mixture which presents an imminent and unreasonable risk of serious or widespread injury to health or the environment. Such a risk is considered imminent if it is shown that the manufacturing processing, distribution in commerce, use or disposal of the substance or mixture, or any combination thereof, is likely to result in such injury before a final rule under 15 U.S.C. 2605 can protect against such risk.

FEDERAL REGULATIONS

EPA

40 C.F.R. 61.01 to 61.247, inclusive -- emission standards for the following hazardous air pollutants:

Radon, emissions from underground uranium mines, beryllium, mercury, vinyl chloride, radionuclide emissions from facilities, benzene, phosphorus, asbestos and equipment leaks involving volatile hazardous air pollutants.

40 C.F.R. 116.4 -- (under the Water Pollution Control Act): Extensive listing of hazardous substances in Tables 116.4A and 116.4B.

40 C.F.R. 129.4 -- Toxic pollutants:
Aldrin/Dieldrin, DDT, Endrin, Toxaphene, Benzidine, and Polychlorinated Biphenyls.

40 C.F.R. 302.3 -- "hazardous substance defined (under CERCLA and Water Pollution Control Act):
Any substance designated pursuant to 40 C.F.R. 302.

40 C.F.R. 302.4:
Extensive listing of hazardous substances in Table 302.4.

DOT

49 C.F.R. 171.8 -- "hazardous substance" defined (under Hazardous Materials Transportation Act):

A material, and its mixtures or solutions, that is identified by the letter "E" in Column 1 of the table to 49 C.F.R. 172.101 when offered for transportation in one package, or in one transport vehicle if not packaged, and when the quantity of the material exceeds or equals the reportable quantity (RQ) indicated in that table. This definition does not apply to petroleum products that are lubricants or fuels or to a mixture or solution containing a material identified by "E" in

Column 1 of that table if it is a concentration less than that shown in the following table based on the RQ specified for the materials in Column 2 of the table to 49 C.F.R. 172.101:

RQ pounds	RQ kilograms	Concentration by Weight	
		Percent	PPM
5,000	2,270	10	100,000
1,000	454	2	20,000
100	45.4	0.2	2,000
10	4.54	.02	200
1	0.45	.002	20

49.C.F.R 171.8:

Hazardous substances as defined in CERCLA and substances listed by EPA under the Water Pollution Control Act, Air Pollution Control Act and Solid Waste Disposal Act (See RECRA below) are included under Hazardous Materials Transportation Act.

STATE STATUTES

Water Pollution Control (administered by division of environmental protection).

NRS 445.143 -- "contaminant" defined:

... any physical, chemical, biological or radiological substance or matter which is added to water.

NRS 445.178 -- "pollutant" defined:

1. Means dredged soil, waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock sand, cellar dirt and industrial, municipal and agricultural waste discharged into water.

2. Does not mean water, gas or other material which is injected into a well to facilitate production of oil or gas, or water derived in association with oil or gas production and disposed of in a well, if the well is used either for facilitating production or for disposal purposes and if the department determines that such injection or disposal will not result in the degradation of ground or surface water resources.

3. Does not mean water, gas or other material injected into a well or used to stimulate a reservoir or geothermal resources if the department determines that the injection or stimulation will not result in the degradation of ground or surface water resources.

STATE REGULATIONS

Environmental Commission - Water Pollution

NAC 445.099 -- "pollutant" defined:

Same as definition in NRS 445.178.

NAC 445.108 -- "toxic material" defined:

Any material on list developed by Administrator of EPA pursuant to Water Pollution Control Act. (See 40 C.F.R. 129.4 and 40 C.F.R. 116.4).

Environmental Commission -- Air Pollution

NAC 445.436 -- "air contaminant" defined:

Any substance discharged into the air except water vapor and water drops.

NAC 445.437 -- "air pollution" defined:

Presence in the outdoor atmosphere of one or more air contaminants, or any combination thereof, in a quantity and duration that tends to:

1. Injure human health or welfare, animal, plants or other property;
2. Limit visibility or interfere with scenic, esthetic and historic values of the state; or
3. Interfere with the enjoyment of life or property.

NAC 445.717 -- "toxic or hazardous air contaminant" defined:

1. If listed in the "Threshold Limit Values for Chemical Substances in the Work Environment 1983-1984" and the allowable concentration is based on the toxicity of the substance; or
2. The director determines that it causes or contributes to air pollution which may reasonably be anticipated to result in an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness, unless a federal standard for the quality of ambient air, standard for quality of ambient air adopted by the commission, performance standard for new source of a pollutant under 40 C.F.R. Part 60 or national standard for emission of hazardous air pollutant under 40 C.F.R. Part 61 applies. (Note: Environmental Commission has adopted by reference 40 C.F.R. Part 60 and Part 61.)

Division of Health

Adopted by reference 49 C.F.R. 172, including the table to 49 C.F.R. 172.101 listing hazardous substances.

DMV & PS

Adopted by reference 49 C.F.R. 172, including the table to 49 C.F.R. 172.101 listing hazardous substances. (See NAC 706.377).

HAZARDOUS MATERIAL

FEDERAL REGULATIONS

DOT

49 C.F.R. 171.8 -- "hazardous material" defined (under Hazardous Material Transportation Act):

Substance or material which has been determined by the Secretary of Transportation to be capable of posing an unreasonable risk to health, safety and property when transported in commerce and which has been so designated.

STATE STATUTES

Motor Carriers (administered by PSC & DMV & PS).

NRS 706.173 -- regulation of hazardous materials:

... the commission and the department may, by regulation applicable to common, contract and private motor carriers of passengers and property, adopt standards for:

1. Safety for drivers and vehicles; and
2. The transportation of hazardous materials, including hazardous waste as defined in NRS 459.430.

STATE REGULATIONS

PSC - Railroads

NAC 705.310 -- "hazardous material" defined:

Low specific activity material as defined in 49 C.F.R. 173.403(n) and radioactive material as defined in 49 C.F.R. 173.403(y) and:

1. Class A explosives - 49 C.F.R. 173.53;
 2. Class B explosives - 49 C.F.R. 173.88;
 3. Poison A - 49 C.F.R. 173.26; and
 4. Flammable solids - 49 C.F.R. 173.50,
- which is subject to the requirements for placarding in table 1 of 49 C.F.R. 172.504.

NAC 705.380:

Adoption by reference of 49 C.F.R. Part 172.

HAZARDOUS WASTE

FEDERAL STATUTES

Resource Conservation and Recovery Act (RCRA) - Solid Waste Disposal

42 U.S.C. 6903(5) -- "hazardous waste" defined:

A solid waste, or combination of solid wastes, which because of its quantity, concentration or physical, chemical or infectious characteristic may:

(A) Cause or significantly contribute to an increase in mortality or an increase in serious, irreversible, or incapacitating reversible, illness; or

(B) Pose a substantial present or potential hazard to human health or the environment when properly treated, stored, transported, disposed of or otherwise managed.

42 U.S.C. 6921:

Administrator of EPA authorized to set criteria for identifying hazardous waste. (See 40 C.F.R. 261 below).

FEDERAL REGULATIONS

DOT

49 C.F.R. 171.8 -- "hazardous waste" defined (under Hazardous Materials Transportation Act):

Any material subject to the hazardous waste manifest requirement of the EPA specified in 40 C.F.R. Part 262.

EPA

40 C.F.R. 261.3 -- "hazardous waste" defined (under RECRA) (See Attachment B).

40 C.F.R. 261.4 -- exclusions (under RECRA) (See Attachment B).

40 C.F.R. 261.31:

Extensive list of hazardous wastes from non-specific sources (under RECRA).

40 C.F.R. 261.32:

Extensive list of hazardous wastes from specific sources (under RECRA).

40 C.F.R. 261.33:

Extensive list of commercial chemical products, off-specification commercial chemical products, container residues and spill residues which become hazardous wastes when discarded.

40 C.F.R. 302.3 -- "hazardous waste" defined (under CERCLA and Water Pollution Control Act):

Same meaning as provided in 40 C.F.R. 261.3 (See Attachment B).

STATE STATUTES

Disposal of Hazardous Waste (administered by department of conservation and natural resources).

NRS 459.430 -- "hazardous waste" defined:

... any waste or combination of wastes, including solids, semisolids, liquids or contained gases, which:

1. Because of its quantity or concentration or its physical, chemical or infectious characteristics may:

(a) Cause or significantly contribute to an increase in mortality or serious irreversible or incapacitating illness; or

(b) Pose a substantial hazard or potential hazard to human health, public safety or the environment when it is given improper treatment, storage, transportation, disposal or other management.

2. Is identified as hazardous by the department as a result of studies undertaken for the purpose of identifying hazardous wastes.

The term includes, among other wastes, toxins, corrosives, flammable materials, irritants, strong sensitizers and materials which generate pressure by decomposition, heat or otherwise.

STATE REGULATIONS

Environmental Commission -- Solid Waste Disposal

NAC 444.580 -- "hazardous waste" defined:

Those wastes that can cause injury, disease or property damage, including explosives, pathological wastes, radioactive materials and chemicals.

Environmental Commission -- Hazardous Waste Disposal

NAC 444.8565 -- "hazardous waste" defined:

Same meaning as provided in NRS 459.430. The term includes any:

1. Hazardous waste or constituent of hazardous waste subject to regulation under 40 C.F.R. Part 261;

2. Mixture of wastes identified in 40 C.F.R. 261.31 et seq.; and

3. Commercial chemical product, if one or more of its active ingredients are identified in 40 C.F.R. 261.31 et seq.

The term does not include waste containing polychlorinated biphenyl.

§ 61.53

shall be disposed of at the disposal site.

(b) Facility operation and disposal site closure for land disposal facilities other than near-surface (reserved).

§ 61.53 Environmental monitoring.

(a) At the time a license application is submitted, the applicant shall have conducted a preoperational monitoring program to provide basic environmental data on the disposal site characteristics. The applicant shall obtain information about the ecology, meteorology, climate, hydrology, geology, geochemistry, and seismology of the disposal site. For those characteristics that are subject to seasonal variation, data must cover at least a twelve month period.

(b) The licensee must have plans for taking corrective measures if migration of radionuclides would indicate that the performance objectives of Subpart C may not be met.

(c) During the land disposal facility site construction and operation, the licensee shall maintain a monitoring program. Measurements and observations must be made and recorded to provide data to evaluate the potential health and environmental impacts during both the construction and the operation of the facility and to enable the evaluation of long-term effects and the need for mitigative measures. The monitoring system must be capable of providing early warning of releases of radionuclides from the disposal site before they leave the site boundary.

(d) After the disposal site is closed, the licensee responsible for post-operational surveillance of the disposal site shall maintain a monitoring system based on the operating history and the closure and stabilization of the disposal site. The monitoring system must be capable of providing early warning of releases of radionuclides from the disposal site before they leave the site boundary.

§ 61.54 Alternative requirements for design and operations.

The Commission may, upon request or on its own initiative, authorize provisions other than those set forth in §§ 61.51 through 61.53 for the segrega-

tion and disposal of waste and for the design and operation of a land disposal facility on a specific basis, if it finds reasonable assurance of compliance with the performance objectives of Subpart C of this part.

§ 61.55 Waste classification.

(a) Classification of waste for near surface disposal.

(1) *Considerations.* Determination of the classification of radioactive waste involves two considerations. First, consideration must be given to the concentration of long-lived radionuclides (and their shorter-lived precursors) whose potential hazard will persist long after such precautions as institutional controls, improved waste form, and deeper disposal have ceased to be effective. These precautions delay the time when long-lived radionuclides could cause exposures. In addition, the magnitude of the potential dose is limited by the concentration and availability of the radionuclide at the time of exposure. Second, consideration must be given to the concentration of shorter-lived radionuclides for which requirements on institutional controls, waste form, and disposal methods are effective.

(2) *Classes of waste.* (i) Class A waste is waste that is usually segregated from other waste classes at the disposal site. The physical form and characteristics of Class A waste must meet the minimum requirements set forth in § 61.56(a). If Class A waste also meets the stability requirements set forth in § 61.56(b), it is not necessary to segregate the waste for disposal.

(ii) Class B waste is waste that must meet more rigorous requirements on waste form to ensure stability after disposal. The physical form and characteristics of Class B waste must meet both the minimum and stability requirements set forth in § 61.56.

(iii) Class C waste is waste that not only must meet more rigorous requirements on waste form to ensure stability but also requires additional measures at the disposal facility to protect against inadvertent intrusion. The physical form and characteristics of Class C waste must meet both the

minimum and stability requirements set forth in § 61.56.

(iv) Waste that is not generally acceptable for near-surface disposal is waste for which waste form and disposal methods must be different, and in general more stringent, than those specified for Class C waste. In the absence of specific requirements in this part, proposals for disposal of this waste may be submitted to the Commission for approval, pursuant to § 61.58 of this part.

(3) Classification determined by long-lived radionuclides. If radioactive waste contains only radionuclides listed in Table 1, classification shall be determined as follows:

(i) If the concentration does not exceed 0.1 times the value in Table 1, the waste is Class A.

(ii) If the concentration exceeds 0.1 times the value in Table 1 but does not exceed the value in Table 1, the waste is Class C.

(iii) If the concentration exceeds the value in Table 1, the waste is not generally acceptable for near-surface disposal.

(iv) For wastes containing mixtures of radionuclides listed in Table 1, the total concentration shall be determined by the sum of fractions rule described in paragraph (a)(7) of this section.

TABLE 1

Radionuclide	Concentration curies per cubic meter
C-14.....	8
C-14 in activated metal.....	80
Ni-59 in activated metal.....	220
Nb-94 in activated metal.....	0.2
Tc-99.....	3 ¹
I-129.....	0.08
Alpha emitting transuranic nuclides with half-life greater than five years.....	100
Pu-241.....	3,500
Cm-242.....	20,000

¹ Units are nanocuries per gram.

(4) Classification determined by short-lived radionuclides. If radioactive waste does not contain any of the radionuclides listed in Table 1, classification shall be determined based on the concentrations shown in Table 2. However, as specified in paragraph

(a)(6) of this section, if radioactive waste does not contain any nuclides listed in either Table 1 or 2, it is Class A.

(i) If the concentration does not exceed the value in Column 1, the waste is Class A.

(ii) If the concentration exceeds the value in Column 1, but does not exceed the value in Column 2, the waste is Class B.

(iii) If the concentration exceeds the value in Column 2, but does not exceed the value in Column 3, the waste is Class C.

(iv) If the concentration exceeds the value in Column 3, the waste is not generally acceptable for near-surface disposal.

(v) For wastes containing mixtures of the nuclides listed in Table 2, the total concentration shall be determined by the sum of fractions rule described in paragraph (a)(7) of this section.

TABLE 2

Radionuclide	Concentration, curies C per cubic meter		
	Col. 1	Col. 2	Col. 3
Total of all nuclides with less than 5 year half life.....	700	(¹)	(¹)
H-3.....	40	(¹)	(¹)
Co-60.....	700	(¹)	(¹)
Ni-63.....	3	70	700
Ni-63 in activated metal.....	35	700	7000
Sr-90.....	0.24	150	7000
Ce-137.....	1	44	4600

¹ There are no limits established for these radionuclides in Class B or C wastes. Practical considerations such as the effects of external radiation and internal heat generation on transportation, handling, and disposal will limit the concentrations for these wastes. These wastes shall be Class B unless the concentrations of other nuclides in Table 2 determine the waste to the Class C independent of these nuclides.

(5) Classification determined by both long- and short-lived radionuclides. If radioactive waste contains a mixture of radionuclides, some of which are listed in Table 1, and some of which are listed in Table 2, classification shall be determined as follows:

(i) If the concentration of a nuclide listed in Table 1 does not exceed 0.1 times the value listed in Table 1, the class shall be that determined by the concentration of nuclides listed in Table 2.

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(ii) If the concentration of a nuclide listed in Table 1 exceeds 0.1 times the value listed in Table 1 but does not exceed the value in Table 1, the waste shall be Class C, provided the concentration of nuclides listed in Table 2 does not exceed the value shown in Column 3 of Table 2.

(6) Classification of wastes with radionuclides other than those listed in Tables 1 and 2. If radioactive waste does not contain any nuclides listed in either Table 1 or 2, it is Class A.

(7) The sum of the fractions rule for mixtures of radionuclides. For determining classification for waste that contains a mixture of radionuclides, it is necessary to determine the sum of fractions by dividing each nuclide's concentration by the appropriate limit and adding the resulting values. The appropriate limits must all be taken from the same column of the same table. The sum of the fractions for the column must be less than 1.0 if the waste class is to be determined by that column. Example: A waste contains Sr-90 in a concentration of 50 Ci/m³ and Cs-137 in a concentration of 22 Ci/m³. Since the concentrations both exceed the values in Column 1, Table 2, they must be compared to Column 2 values. For Sr-90 fraction $50/150=0.33$; for Cs-137 fraction, $22/44=0.5$; the sum of the fractions= 0.83 . Since the sum is less than 1.0, the waste is Class B.

(8) *Determination of concentrations in wastes.* The concentration of a radionuclide may be determined by indirect methods such as use of scaling factors which relate the inferred concentration of one radionuclide to another that is measured, or radionuclide material accountability, if there is reasonable assurance that the indirect methods can be correlated with actual measurements. The concentration of a radionuclide may be averaged over the volume of the waste, or weight of the waste if the units are expressed as nanocuries per gram.

§ 61.56 Waste characteristics.

(a) The following requirements are minimum requirements for all classes of waste and are intended to facilitate handling at the disposal site and provide protection of health and safety of personnel at the disposal site.

(1) Waste must not be packaged for disposal in cardboard or fiberboard boxes.

(2) Liquid waste must be solidified or packaged in sufficient absorbent material to absorb twice the volume of the liquid.

(3) Solid waste containing liquid shall contain as little free standing and noncorrosive liquid as is reasonably achievable, but in no case shall the liquid exceed 1% of the volume.

(4) Waste must not be readily capable of detonation or of explosive decomposition or reaction at normal pressures and temperatures, or of explosive reaction with water.

(5) Waste must not contain, or be capable of generating, quantities of toxic gases, vapors, or fumes harmful to persons transporting, handling, or disposing of the waste. This does not apply to radioactive gaseous waste packaged in accordance with paragraph (a)(7) of this section.

(6) Waste must not be pyrophoric. Pyrophoric materials contained in waste shall be treated, prepared, and packaged to be nonflammable.

(7) Waste in a gaseous form must be packaged at a pressure that does not exceed 1.5 atmospheres at 20°C. Total activity must not exceed 100 curies per container.

(8) Waste containing hazardous, biological, pathogenic, or infectious material must be treated to reduce to the maximum extent practicable the potential hazard from the non-radiological materials.

(b) The requirements in this section are intended to provide stability of the waste. Stability is intended to ensure that the waste does not structurally degrade and affect overall stability of the site through slumping, collapse, or other failure of the disposal unit and thereby lead to water infiltration. Stability is also a factor in limiting exposure to an inadvertent intruder, since it provides a recognizable and nondispersible waste.

(1) Waste must have structural stability. A structurally stable waste form will generally maintain its physical dimensions and its form, under the expected disposal conditions such as weight of overburden and compaction equipment, the presence of moisture,

and microbial activity, and internal factors such as radiation effects and chemical changes. Structural stability can be provided by the waste form itself, processing the waste to a stable form, or placing the waste in a disposal container or structure that provides stability after disposal.

(2) Notwithstanding the provisions in § 61.56(a) (2) and (3), liquid wastes, or wastes containing liquid, must be converted into a form that contains as little free standing and noncorrosive liquid as is reasonably achievable, but in no case shall the liquid exceed 1% of the volume of the waste when the waste is in a disposal container designed to ensure stability, or 0.5% of the volume of the waste for waste processed to a stable form.

(3) Void spaces within the waste and between the waste and its package must be reduced to the extent practicable.

§ 61.57 Labeling.

Each package of waste must be clearly labeled to identify whether it is Class A waste, Class B waste, or class C waste, in accordance with § 61.55.

§ 61.58 Alternative requirements for waste classification and characteristics.

The Commission may, upon request or on its own initiative, authorize other provisions for the classification and characteristics of waste on a specific basis, if, after evaluation, of the specific characteristics of the waste, disposal site, and method of disposal, it finds reasonable assurance of compliance with the performance objectives in Subpart C of this part.

§ 61.59 Institutional requirements.

(a) *Land ownership.* Disposal of radioactive waste received from other persons may be permitted only on land owned in fee by the Federal or a State government.

(b) *Institutional control.* The land owner or custodial agency shall carry out an institutional control program to physically control access to the disposal site following transfer of control of the disposal site from the disposal site operator. The institutional control program must also include, but not be limited to, carrying out an environ-

mental monitoring program at the disposal site, periodic surveillance, minor custodial care, and other requirements as determined by the Commission; and administration of funds to cover the costs for these activities. The period of institutional controls will be determined by the Commission, but institutional controls may not be relied upon for more than 100 years following transfer of control of the disposal site to the owner.

Subpart E—Financial Assurances

§ 61.61 Applicant qualifications and assurances.

Each applicant shall show that it either possesses the necessary funds or has reasonable assurance of obtaining the necessary funds, or by a combination of the two, to cover the estimated costs of conducting all licensed activities over the planned operating life of the project, including costs of construction and disposal.

§ 61.62 Funding for disposal site closure and stabilization.

(a) The applicant shall provide assurance that sufficient funds will be available to carry out disposal site closure and stabilization, including: (1) Decontamination or dismantlement of land disposal facility structures; and (2) closure and stabilization of the disposal site so that following transfer of the disposal site to the site owner, the need for ongoing active maintenance is eliminated to the extent practicable and only minor custodial care, surveillance, and monitoring are required. These assurances shall be based on Commission-approved cost estimates reflecting the Commission-approved plan for disposal site closure and stabilization. The applicant's cost estimates must take into account total capital costs that would be incurred if an independent contractor were hired to perform the closure and stabilization work.

(b) In order to avoid unnecessary duplication and expense, the Commission will accept financial sureties that have been consolidated with earmarked financial or surety arrangements established to meet requirements of other

§ 261.3

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uct, provided the materials are not being reclaimed; or

(ii) Used or reused as effective substitutes for commercial products; or

(iii) Returned to the original process from which they are generated, without first being reclaimed. The material must be returned as a substitute for raw material feedstock, and the process must use raw materials as principal feedstocks.

(2) The following materials are solid wastes, even if the recycling involves use, reuse, or return to the original process (described in paragraphs (e)(1)(i)-(iii) of this section):

(i) Materials used in a manner constituting disposal, or used to produce products that are applied to the land; or

(ii) Materials burned for energy recovery, used to produce a fuel, or contained in fuels; or

(iii) Materials accumulated speculatively; or

(iv) Materials listed in paragraph (d)(1) of this section.

(f) *Documentation of claims that materials are not solid wastes or are conditionally exempt from regulation.* Respondents in actions to enforce regulations implementing Subtitle C of RCRA who raise a claim that a certain material is not a solid waste, or is conditionally exempt from regulation, must demonstrate that there is a known market or disposition for the material, and that they meet the terms of the exclusion or exemption. In doing so, they must provide appropriate documentation (such as contracts showing that a second person uses the material as an ingredient in a production process) to demonstrate that the material is not a waste, or is exempt from regulation. In addition, owners or operators of facilities claiming that they actually are recycling materials must show that they have the necessary equipment to do so.

[50 FR 664, Jan. 4, 1985]

EFFECTIVE DATE NOTE: At 50 FR 664, Jan. 4, 1985, § 261.2 was revised, effective July 5, 1985 (except for paragraph (e) which was effective December 20, 1984). For the convenience of the user, the superseded text is set out below:

§ 261.2 Definition of solid waste.

(a) A solid waste is any garbage, refuse, sludge or any other waste material which is not excluded under § 261.4(a).

(b) An "other waste material" is any solid, liquid, semi-solid or contained gaseous material, resulting from industrial, commercial, mining or agricultural operations, or from community activities which:

(1) Is discarded or is being accumulated, stored or physically, chemically or biologically treated prior to being discarded; or

(2) Has served its original intended use and sometimes is discarded; or

(3) Is a manufacturing or mining by-product and sometimes is discarded.

(c) A material is "discarded" if it is abandoned (and not used, re-used, reclaimed or recycled) by being:

(1) Disposed of; or

(2) Burned or incinerated, except where the material is being burned as a fuel for the purpose of recovering usable energy; or

(3) Physically, chemically, or biologically treated (other than burned or incinerated) in lieu of or prior to being disposed of.

(d) A material is "disposed of" if it is discharged, deposited, injected, dumped, spilled, leaked or placed into or on any land or water so that such material or any constituent thereof may enter the environment or be emitted into the air or discharged into ground or surface waters.

(e) A "manufacturing or mining by-product" is a material that is not one of the primary products of a particular manufacturing or mining operation, is a secondary and incidental product of the particular operation and would not be solely and separately manufactured or mined by the particular manufacturing or mining operation. The term does not include an intermediate manufacturing or mining product which results from one of the steps in a manufacturing or mining process and is typically processed through the next step of the process within a short time.

§ 261.3 Definition of hazardous waste.

(a) A solid waste, as defined in § 261.2, is a hazardous waste if:

(1) It is not excluded from regulation as a hazardous waste under § 261.4(b); and

(2) It meets any of the following criteria:

(i) It exhibits any of the characteristics of hazardous waste identified in Subpart C.

(ii) It is listed in Subpart D and has not been excluded from the lists in Subpart D under §§ 260.20 and 266.22 of this chapter.

(iii) It is a mixture of a solid waste and a hazardous waste that is listed in Subpart D solely because it exhibits one or more of the characteristics of hazardous waste identified in Subpart C, unless the resultant mixture no longer exhibits any characteristic of hazardous waste identified in Subpart C.

(iv) It is a mixture of solid waste and one or more hazardous wastes listed in Subpart D and has not been excluded from this paragraph under §§ 260.20 and 260.22 of this chapter; however, the following mixtures of solid wastes and hazardous wastes listed in Subpart D are not hazardous wastes (except by application of paragraph (a)(2) (i) or (ii) of this section) if the generator can demonstrate that the mixture consists of wastewater the discharge of which is subject to regulation under either Section 402 or Section 307(b) of the Clean Water Act (including wastewater at facilities which have eliminated the discharge of wastewater) and:

(A) One or more of the following spent solvents listed in § 261.31—carbon tetrachloride, tetrachloroethylene, trichloroethylene—provided that the maximum total weekly usage of these solvents (other than the amounts that can be demonstrated not to be discharged to wastewater) divided by the average weekly flow of wastewater into the headworks of the facility's wastewater treatment or pre-treatment system does not exceed 1 part per million; or

(B) One or more of the following spent solvents listed in § 261.31—methylene chloride, 1,1,1-trichloroethane, chlorobenzene, o-dichlorobenzene, cresols, cresylic acid, nitrobenzene, toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, spent chlorofluorocarbon solvents—provided that the maximum total weekly usage of these solvents (other than the amounts that can be demonstrated not to be discharged to wastewater) divided by the average weekly flow of wastewater into the headworks of the facility's wastewater treatment or pre-treatment system does not exceed 25 parts per million; or

(C) One of the following wastes listed in § 261.32—heat exchanger

bundle cleaning sludge from the petroleum refining industry (EPA Hazardous Waste No. K050); or

(D) A discarded commercial chemical product, or chemical intermediate listed in § 261.33, arising from *de minimis* losses of these materials from manufacturing operations in which these materials are used as raw materials or are produced in the manufacturing process. For purposes of this subparagraph, "*de minimis*" losses include those from normal material handling operations (e.g. spills from the unloading or transfer of materials from bins or other containers, leaks from pipes, valves or other devices used to transfer materials); minor leaks of process equipment, storage tanks or containers; leaks from well-maintained pump packings and seals; sample purgings; relief device discharges; discharges from safety showers and rinsing and cleaning of personal safety equipment; and rinsate from empty containers or from containers that are rendered empty by that rinsing; or

(E) Wastewater resulting from laboratory operations containing toxic (T) wastes listed in Subpart D, provided that the annualized average flow of laboratory wastewater does not exceed one percent of total wastewater flow into the headworks of the facility's wastewater treatment or pre-treatment system, or provided the wastes, combined annualized average concentration does not exceed one part per million in the headworks of the facility's wastewater treatment or pre-treatment facility. Toxic (T) wastes used in laboratories that are demonstrated not to be discharged to wastewater are not to be included in this calculation.

(b) A solid waste which is not excluded from regulation under paragraph (a)(1) of this section becomes a hazardous waste when any of the following events occur:

(1) In the case of a waste listed in Subpart D, when the waste first meets the listing description set forth in Subpart D.

(2) In the case of a mixture of solid waste and one or more listed hazardous wastes, when a hazardous waste listed in Subpart D is first added to the solid waste.

ATTACHMENT "B"

(3) In the case of any other waste (including a waste mixture), when the waste exhibits any of the characteristics identified in Subpart C.

(c) Unless and until it meets the criteria of paragraph (d):

(1) A hazardous waste will remain a hazardous waste.

(2)(i) Except as otherwise provided in paragraph (c)(2)(ii) of this section, any solid waste generated from the treatment, storage, or disposal of a hazardous waste, including any sludge, spill residue, ash, emission control dust, or leachate (but not including precipitation run-off) is a hazardous waste. (However, materials that are reclaimed from solid wastes and that are used beneficially are not solid wastes and hence are not hazardous wastes under this provision unless the reclaimed material is burned for energy recovery or used in a manner constituting disposal.)

(ii) The following solid wastes are not hazardous even though they are generated from the treatment, storage, or disposal of a hazardous waste, unless they exhibit one or more of the characteristics of hazardous waste: (A) Waste pickle liquor sludge generated by lime stabilization of spent pickle liquor from the iron and steel industry (SIC Codes 331 and 332).

(d) Any solid waste described in paragraph (c) of this section is not a hazardous waste if it meets the following criteria:

(1) In the case of any solid waste, it does not exhibit any of the characteristics of hazardous waste identified in Subpart C.

(2) In the case of a waste which is a listed waste under Subpart D, contains a waste listed under Subpart D or is derived from a waste listed in Subpart D, it also has been excluded from paragraph (c) under §§ 260.20 and 260.22 of this chapter.

[45 FR 33119, May 19, 1980, as amended at 46 FR 56588, Nov. 11, 1981; 50 FR 14219, Apr. 11, 1985]

EFFECTIVE DATE NOTE At 50 FR 664, Jan. 4, 1985, and corrected at 50 FR 14219, Apr. 11, 1985, § 261.3(c)(2) was revised, effective July 5, 1985. For the convenience of the user, the superseded text is set out below:

§ 261.3 Definition of hazardous waste.

• • • • •

(c) • • •

(2)(i) Except as otherwise provided in paragraph (c)(2)(ii) of this section, any solid waste generated from the treatment, storage, or disposal of a hazardous waste, including any sludge, spill residue, ash, emission control dust or leachate (but not including precipitation run-off) is a hazardous waste.

(ii) The following solid wastes are not hazardous even though they are generated from the treatment, storage, or disposal of a hazardous waste, unless they exhibit one or more of the characteristics of hazardous waste: (A) Waste pickle liquor sludge generated by lime stabilization of spent pickle liquor from the iron and steel industry (SIC codes 331 and 332).

• • • • •

§ 261.4 Exclusions.

(a) *Materials which are not solid wastes.* The following materials are not solid wastes for the purpose of this part:

(1)(i) Domestic sewage; and

(ii) Any mixture of domestic sewage and other wastes that passes through a sewer system to a publicly-owned treatment works for treatment. "Domestic sewage" means untreated sanitary wastes that pass through a sewer system.

(2) Industrial wastewater discharges that are point source discharges subject to regulation under Section 402 of the Clean Water Act, as amended.

[*Comment:* This exclusion applies only to the actual point source discharge. It does not exclude industrial wastewaters while they are being collected, stored or treated before discharge, nor does it exclude sludges that are generated by industrial wastewater treatment.]

(3) Irrigation return flows.

(4) Source, special nuclear or by-product material as defined by the Atomic Energy Act of 1954, as amended, 42 U.S.C. 2011 *et seq.*

(5) Materials subjected to in-situ mining techniques which are not removed from the ground as part of the extraction process.

(6) Pulping liquors (i.e., black liquor) that are reclaimed in a pulping liquor

recovery furnace and then reused in the pulping process, unless it is accumulated speculatively as defined in § 261.1(c) of this chapter.

(7) Spent sulfuric acid used to produce virgin sulfuric acid, unless it is accumulated speculatively as defined in § 261.1(c) of this chapter.

(b) *Solid wastes which are not hazardous wastes.* The following solid wastes are not hazardous wastes:

(1) Household waste, including household waste that has been collected, transported, stored, treated, disposed, recovered (e.g., refuse-derived fuel), or reused. "Household waste" means any waste material (including garbage, trash and sanitary wastes in septic tanks) derived from households (including single and multiple residences, hotels and motels, bunkhouses, ranger stations, crew quarters, campgrounds, picnic grounds, and day-use recreation areas).

(2) Solid wastes generated by any of the following and which are returned to the soils as fertilizers:

(i) The growing and harvesting of agricultural crops.

(ii) The raising of animals, including animal manures.

(3) Mining overburden returned to the mine site.

(4) Fly ash waste, bottom ash waste, slag waste, and flue gas emission control waste generated primarily from the combustion of coal or other fossil fuels.

(5) Drilling fluids, produced waters, and other wastes associated with the exploration, development, or production of crude oil, natural gas or geothermal energy.

(6)(i) Wastes which fail the test for the characteristic of EP toxicity because chromium is present or are listed in Subpart D due to the presence of chromium, which do not fail the test for the characteristic of EP toxicity for any other constituent or are not listed due to the presence of any other constituent, and which do not fail the test for any other characteristic, if it is shown by a waste generator or by waste generators that:

(A) The chromium in the waste is exclusively (or nearly exclusively) trivalent chromium; and

(B) The waste is generated from an industrial process which uses trivalent chromium exclusively (or nearly exclusively) and the process does not generate hexavalent chromium; and

(C) The waste is typically and frequently managed in non-oxidizing environments.

(ii) Specific wastes which meet the standard in paragraphs (b)(6)(i)(A), (B) and (C) (so long as they do not fail the test for the characteristic of EP toxicity, and do not fail the test for any other characteristic) are:

(A) Chrome (blue) trimmings generated by the following subcategories of the leather tanning and finishing industry: hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; retan/wet finish; no beamhouse; through-the-blue; and shearing.

(B) Chrome (blue) shavings generated by the following subcategories of the leather tanning and finishing industry: hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; retan/wet finish; no beamhouse; through-the-blue; and shearing.

(C) Buffing dust generated by the following subcategories of the leather tanning and finishing industry: hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; retan/wet finish; no beamhouse; through-the-blue.

(D) Sewer screenings generated by the following subcategories of the leather tanning and finishing industry: hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; retan/wet finish; no beamhouse; through-the-blue; and shearing.

(E) Wastewater treatment sludges generated by the following subcategories of the leather tanning and finishing industry: hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; retan/wet finish; no beamhouse; through-the-blue; and shearing.

(F) Wastewater treatment sludges generated by the following subcategories of the leather tanning and finishing industry: hair pulp/chrome tan/retan/wet finish; hair save/chrome-

tan/retan/wet finish; and through-the-blue.

(G) Waste scrap leather from the leather tanning industry, the shoe manufacturing industry, and other leather product manufacturing industries.

(H) Wastewater treatment sludges from the production of TiO₂ pigment using chromium-bearing ores by the chloride process.

(7) Solid waste from the extraction, beneficiation and processing of ores and minerals (including coal), including phosphate rock and overburden from the mining of uranium ore.

(8) Cement kiln dust waste.

(9) Solid waste which consists of discarded wood or wood products which fails the test for the characteristic of EP toxicity and which is not a hazardous waste for any other reason if the waste is generated by persons who utilize the arsenical-treated wood and wood products for these materials' intended end use.

(c) Hazardous wastes which are exempted from certain regulations. A hazardous waste which is generated in a product or raw material storage tank, a product or raw material transport vehicle or vessel, a product or raw material pipeline, or in a manufacturing process unit or an associated non-waste-treatment-manufacturing unit, is not subject to regulation under Parts 262 through 265, 270, 271 and 124 of this chapter or to the notification requirements of Section 3010 of RCRA until it exits the unit in which it was generated, unless the unit is a surface impoundment, or unless the hazardous waste remains in the unit more than 90 days after the unit ceases to be operated for manufacturing, or for storage or transportation of product or raw materials.

(d) *Samples.* (1) Except as provided in paragraph (d)(2) of this section, a sample of solid waste or a sample of water, soil, or air, which is collected for the sole purpose of testing to determine its characteristics or composition, is not subject to any requirements of this part or Parts 262 through 267 or Part 270 or Part 124 of this chapter or to the notification requirements of Section 3010 of RCRA, when:

(i) The sample is being transported to a laboratory for the purpose of testing; or

(ii) The sample is being transported back to the sample collector after testing; or

(iii) The sample is being stored by the sample collector before transport to a laboratory for testing; or

(iv) The sample is being stored in a laboratory before testing; or

(v) The sample is being stored in a laboratory after testing but before it is returned to the sample collector; or

(vi) The sample is being stored temporarily in the laboratory after testing for a specific purpose (for example, until conclusion of a court case or enforcement action where further testing of the sample may be necessary).

(2) In order to qualify for the exemption in paragraphs (d)(1) (i) and (ii) of this section, a sample collector shipping samples to a laboratory and a laboratory returning samples to a sample collector must:

(i) Comply with U.S. Department of Transportation (DOT), U.S. Postal Service (USPS), or any other applicable shipping requirements; or

(ii) Comply with the following requirements if the sample collector determines that DOT, USPS, or other shipping requirements do not apply to the shipment of the sample:

(A) Assure that the following information accompanies the sample:

(1) The sample collector's name, mailing address, and telephone number;

(2) The laboratory's name, mailing address, and telephone number;

(3) The quantity of the sample;

(4) The date of shipment; and

(5) A description of the sample.

(B) Package the sample so that it does not leak, spill, or vaporize from its packaging.

(3) This exemption does not apply if the laboratory determines that the waste is hazardous but the laboratory is no longer meeting any of the conditions stated in paragraph (d)(1) of this section.

[45 FR 33119, May 19, 1980, as amended at 45 FR 72037, Oct. 30, 1980; 45 FR 76620, Nov. 19, 1980; 45 FR 78531, Nov. 25, 1980; 45 FR 80287, Dec. 4, 1980; 46 FR 27476, May 20, 1981; 46 FR 47429, Sept. 25, 1981; 48 FR

14293, Apr. 1, 1983; 48 FR 30115, June 30, 1983; 49 FR 44980, Nov. 13, 1984; 50 FR 665, Jan. 4, 1985; 50 FR 14219, Apr. 11, 1985]

EFFECTIVE DATE NOTE: At 50 FR 665, Jan. 4, 1985, as corrected at 50 FR 14219, Apr. 11, 1985, § 261.4(a) (6) and (7) were added, effective July 5, 1985.

§ 261.5 Special requirements for hazardous waste generated by small quantity generators.

(a) A generator is a small quantity generator in a calendar month if he generates less than 1000 kilograms of hazardous waste in that month.

(b) Except for those wastes identified in paragraphs (e) and (f) of this section, a small quantity generator's hazardous wastes are not subject to regulation under Parts 262 through 265 and Parts 270 and 124 of this chapter, and the notification requirements of Section 3010 of RCRA, provided the generator complies with the requirements of paragraph (g) of this section.

(c) Hazardous waste that is recycled and that is excluded from regulation under §§ 261.6 (a)(2)(iii) and (v), (a)(3), or 266.36 is not included in the quantity determinations of this section and is not subject to any requirements of this section. Hazardous waste that is subject to the requirements of § 261.6 (b) and (c) and Subparts C, D, and F of Part 266 is included in the quantity determination of this section and is subject to the requirements of this section.

(d) In determining the quantity of hazardous waste he generates, a generator need not include:

(1) His hazardous waste when it is removed from on-site storage; or

(2) Hazardous waste produced by on-site treatment of his hazardous waste.

(e) If a small quantity generator generates acutely hazardous waste in a calendar month in quantities greater than set forth below, all quantities of that acutely hazardous waste are subject to regulation under Parts 262 through 265 and Parts 270 and 124 of this chapter, and the notification requirements of Section 3010 of RCRA:

(1) A total of one kilogram of acute hazardous wastes listed in §§ 261.31, 261.32, or 261.33(e).

(2) A total of 100 kilograms of any residue or contaminated soil, waste or

other debris resulting from the clean-up of a spill, into or on any land or water, of any acute hazardous wastes listed in §§ 261.31, 261.32, or 261.33(e).

(f) A small quantity generator may accumulate hazardous waste on-site. If he accumulates at any time more than a total of 1000 kilograms of his hazardous waste, or his acutely hazardous wastes in quantities greater than set forth in paragraph (e)(1) or (e)(2) of this section, all of those accumulated wastes for which the accumulation limit was exceeded are subject to regulation under Parts 262 through 265 and Parts 270 and 124 of this chapter, and the notification requirements of Section 3010 of RCRA. The time period of § 262.34 for accumulation of wastes on-site begins for a small quantity generator when the accumulated wastes exceed the applicable exclusion level.

(g) In order for hazardous waste generated by a small quantity generator to be excluded from full regulation under this section, the generator must:

(1) Comply with § 262.11 of this chapter;

(2) If he stores his hazardous waste on-site, store it in compliance with the requirements of paragraph (f) of this section; and

(3) Either treat or dispose of his hazardous waste in an on-site facility, or ensure delivery to an off-site storage, treatment or disposal facility, either of which is:

(i) Permitted under Part 270 of this chapter;

(ii) In interim status under Parts 270 and 265 of this chapter;

(iii) Authorized to manage hazardous waste by a State with a hazardous waste management program approved under Part 271 of this chapter;

(iv) Permitted, licensed or registered by a State to manage municipal or industrial solid waste; or

(v) A facility which:

(A) Beneficially uses or re-uses, or legitimately recycles or reclaims his waste; or

(B) Treats his waste prior to beneficial use or re-use, or legitimate recycling or reclamation.

(h) Hazardous waste subject to the reduced requirements of this section may be mixed with non-hazardous

APPENDIX B

Information provided by the risk management division of the department of administration concerning a recommendation to develop a state liability program for hazardous materials and wastes and low-level radioactive wastes.



STATE OF NEVADA
DEPARTMENT OF ADMINISTRATION

RISK MANAGEMENT DIVISION
CAPITOL COMPLEX
CARSON CITY, NEVADA 89710

Telephone (702) 885-4085

RICHARD H. BRYAN
Governor

WILLIAM A. BLOOM
Director

July 2, 1986

Assemblyman James W. Scofield, Chairman,
Hazardous Materials Management Committee
Legislative Building
Carson City, Nevada 89710

Attention: Linda Gardner

Re: Your Letter of June 6, 1986

Dear Assemblyman Scofield:

Thank you for your letter of June 6, 1986 regarding a recommendation to develop a state liability program for hazardous materials and wastes and low level radioactive wastes.

In general, the State could not afford to take on the unlimited liability for clean-up and compensation for damages due to a hazardous waste site. However, some consideration could be given to a limited program as follows:

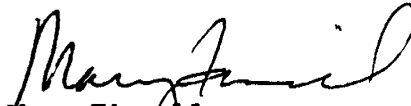
- 1) Landfills run by private operators should be included in any pool formed. The reasoning is that private operators may not be able to obtain adequate insurance and form shell corporations that could go bankrupt if claims are made.
- 2) The State or other public entities may be forced to clean-up a site, even though it is owned by a private concern. If the private operators are required to contribute to a fund, the State will have had some contributions from the operator prior to a loss.
- 3) The "coverage" could not be for materials dumped prior to the effective date at an old site. It would have to be on new sites that are engineered properly for the type of waste to be handled. The coverage language would have to be worded precisely so it is clear what is or is not covered.
- 4) A cap per claim or per county or per site would have to be imposed and an annual aggregate cap included. Also, once the fund is exhausted no more claims would be covered. There is currently no reinsurance available, so the State's liability would have to end once the fund is exhausted.

- 5) Funding could be handled by:
- 1) imposing "tipping" fees at the site. This would be an add on to the regular dumping fees, and,
 - 2) A charge per person residing in each county, and,
 - 3) Charging each landfill operator a "premium" according to the type of materials handled.

I understand that North Carolina has started such a pool for landfill operators, and attached is a copy of a presentation given at a recent Risk Manager's conference. I also confirmed with Wayne Carlson, the coordinator of the city/county general liability pool that pollution liability/environmental impairment will not be covered by the pool or the reinsurance carrier, Lloyd's of London.

I hope this information is of some use to you. Please let me know if I can be of further assistance.

Sincerely,



Mary Finnell
State Risk Manager

MF:fh

Enclosure

cc: William A. Bible, Director
Department of Administration

**A PROPOSAL FOR A
STATE LANDFILL LIABILITY
RISK SHARING POOL**

**Presented At
PRIMA'S 7th Annual Conference**

**June 9, 1986
Boston, Massachusetts**

PREPARED BY:

**DAVID J. DYBDAHL, JR. MBA, CPCU, ARM
Account Executive**

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PREFIX

- I. This proposal presents a solution to the availability problem of Pollution Liability Insurance on operating landfills within a state. It is not designed to address the problems associated with orphaned and/or closed waste disposal sites. Nor is it designed to address the problems associated with siting a hazardous waste disposal facility within a state. (Although the solution presented here could be utilized to address victim compensation on a hazardous waste site, as well as, a solid waste disposal facility.)

The proposed program benefits public and private site operators, waste generators, injured parties and regulators.

INTRODUCTION

- A. The lack of Environmental Impairment Liability Insurance creates the following problems:
 1. Site operators do not have access to a risk transfer mechanism forcing them to bear the entire burden of risk in the operation of the site.
 2. Without the protection of insurance many site operators may find themselves without assets to adequately compensate victims of environmental impairment incidences.
 3. Development of new waste disposal sites will be hindered because of the risk associated with their operation and the lack of a risk transfer mechanism.
 4. Waste generators (businesses) are subject to contingent liabilities at a disposal site. If the disposal site does not have adequate assets the liabilities may fall back on to the site users.

5. Under theories of strict, joint and several liability, large corporations will be reluctant to utilize disposal sites that do not have liability insurance because of the corporation's "deep pocket target" image.
6. Under the present circumstances the implied cost of risk is not being incorporated into the balance sheet of the site operators. This creates inefficiencies in the selection of alternative forms of waste disposal.
7. By not taking into account the implied cost of risk into the operation of a landfill the private cost of risk is underestimated and is not equal to the potential social cost of risk in the event a landfill causes environmental impairment and victims go uncompensated.

II. GOALS OF THIS PROPOSAL

- A. Promote good public risk management by equalizing private versus social cost of risk by forcing the internalization of these costs into the balance sheets of the site operators. If all victims are totally compensated for their loss in the event of an environmental impairment incidence private versus social costs will be equal.
- B. Attract economic development in the State by:
 1. Attracting investment in new waste disposal sites.
 2. Helping to reduce contingent liabilities for site users by increasing the funds available for site operators to compensate victims.
 3. If tort law reforms are incorporated to address victim compensation from environmental losses, the state would have a more favorable business climate for the larger corporations in the country.
- C. To satisfy the risk transfer needs of site operators.

III. GOALS OF THE RISK FINANCING INSTRUMENT

- A. To remain viable and solvent in the long run.
- B. The risk financing instrument should be structured to utilize the "free market" for efficiency purposes wherever possible.
- C. The risk financing instrument should not create an open ended liability to the sponsor (State) or the participants.

STRUCTURE OF A PROPOSED
LANDFILL LIABILITY
RISK SHARING POOL

IV. Legislation is introduced to require as a prerequisite to obtaining an operating license that every solid waste disposal facility must provide proof of financial responsibility for victim compensation.

The proof required should address both sudden and non-sudden environmental impairment incidents.

V. The State creates in the same legislation a source of supply for pollution liability insurance through a state risk sharing Pool. (See Appendix A)

A. The State Pool issues certificates of insurance coverage to each site.

1. The actual coverage is on a claims made form, which means that the policy will pay for all claims made against the insured in that policy period. If a claim is made in year 1 and settled in year 2, the policy in force in year 1 will pay the entire claim.
2. The actual insurance coverage provided will be customized to coordinate with the specific objectives of the state. Under this proposal, it will be possible to include coverage for loss of income, water supply replacement, depreciation of property values and possibly site clean-up in addition to the traditional insurance coverages for bodily injury and property damage.
3. Premiums should be collected in the form of a tax on the waste disposed of at each facility.
4. The rate charged per ton or other standard measure should be commensurate with the relative hazard of the site design and of the waste materials being disposed of.
5. The rates charged should reflect credits for engineered sites, ground water monitoring, etc. These credits should help to eliminate cross subsidies between sites of different relative hazards.

- B. All disposal sites should be required to participate in the Pool. This would guarantee that all sites are treated equally and that the implied cost of risk is incorporated into the financial statement of the site operator. It would also help to eliminate the wide discrepancies between the private and social cost of risk in the case of site operator bankruptcies.

VI. WHY A STATE INITIATIVE IS NEEDED

- A. The private market has collapsed losing 95% of its capacity in the past 12 months.
- B. No new markets are on the horizon.
- C. Many of the operating sites in the state may never be insurable on an individual basis.
- D. The state is the only economic entity large enough to pool these exposures and there needs to be enabling legislation.

VII. FINANCIAL STRUCTURE OF THE POOL

- A. The State Pool retains in the form of an annual aggregate risk retention a substantial amount of the potential losses it may be obligated to pay under the certificates of insurance it has issued to the disposal facilities. (In the absence of reinsurance the pool will retain all losses it incurs.)
 - 1. The actual dollar amount of the Pool risk retention should be as high as the Pool can reasonably afford while maintaining the solvency of the Pool.
- B. The suggested self-insured retention for the Pool is at least \$5,000,000.00.
 - 1. The self-insured retention would be particularly funded by cash through user fees the first year.
 - 2. To build the fund to \$5,000,000 in assets in the case of adverse loss experience, provisions should be made for retro assessments to some maximum rate per year and/or borrowing capabilities.
 - 3. Favorable claims experience will allow the cash contributions to the Pool to accumulate. Within three years the self-insured deductible should be fully funded and the need for retro-assessments or borrowing would be eliminated.

The possibility exists that the total claims brought against the Pool in any one policy year will exceed an amount the Pool feels it can pay for out of pocket. To limit its liability and to protect the solvency of the Pool, stop loss liability insurance should be purchased when it is available in the private insurance market.

Once the sum total of all claims exceeded the assets of the Pool, the stop loss insurance would pay for 100% of the covered claims made in that year. The stop loss insurance would pay up to the limits of liability on the policy purchased by the Pool.

Advantages of the aggregate stop loss feature:

1. It creates solvency for the Pool at very high limits of liability.
 2. Tipping fees would be much lower than under a fully funded program. As opposed to building a fund of cash up to \$50,000,000 in a few claim free years, the Pool would only have to fund a \$5,000,000 deductible, the premiums on the aggregate stop loss liability insurance and the administration costs of the program.
- D. By purchasing aggregate stop loss insurance, the state risk sharing Pool is in effect "renting" a cash reserve that may or may not be called on to pay claims sometime in the future.
- E. A significant self-insured retention on the part of the Pool will accomplish the following objectives:
1. It will enable the State Pool to purchase stop loss liability insurance on a pool of risks many of which individually are uninsurable.
 2. The larger deductible amount will lower the cost of the stop loss insurance that the Pool will purchase to guarantee its solvency.
 3. It will probably be impossible to convince the world insurance market to write stop loss insurance on the Pool without a large self-insured deductible on the part of the Pool.

VIII. POOL ADMINISTRATION

A. An administrator should be appointed to:

1. Issue the policies
2. Adjust the claims
3. Collect premiums

5. Invest assets
6. Obtain reinsurance when it is available
7. Prepare management reports

IX. NEW AND CLOSED SITES

- A. This proposal does not address orphaned or abandoned disposal sites. The program structure is dependent upon the collection of tippage fees to fund the Pool.
- B. Sites that are scheduled to be closed after they have paid some monies into the fund (5 years) could continue to be covered by the Pool because the amount of waste being disposed of in the state does not decrease when the site is closed. A new site will be opened and the new tippage fees can be used to fund the potential liabilities from the closed site.

X. FEASIBILITY STUDY

- A. Before the Pool is created a feasibility study should be conducted to address these issues:
 1. The advisability of the proposed Pool.
 2. The development of a rating formula that will reflect credits for relative degree of hazards between sites.
 3. Loss probability study.
 4. Explore retro-assessment vs. borrowing alternative in the case of adverse loss experience.
 5. Coverage provisions of the policy form issued by the Pool.
 6. Develop specifications for the Pool administrator.
- B. The cost for this study will probably be between \$50,000 and \$100,000.00.

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**PUBLIC RISK & INSURANCE MANAGEMENT ASSOCIATION
7th NATIONAL CONFERENCE**

Boston, Massachusetts
June 8-11, 1986

**MANAGING THE ENVIRONMENTAL RISK
Getting Your Insurance Carrier(s) to Pay the Bills**

Larry W. Mitchell, Esq.

A. Sources of Liability.

1. Federal statutory liability; e.g., CERCLA, RCRA, Clean Air Act, Toxic Substances Control Act.
2. State Superfund legislation.
3. Private lawsuit based upon common law doctrines of negligence, strict liability, nuisance and trespass.

B. Damages.

1. Federal and State statutes.
 - a. Costs of cleanup.
 - b. Damages for injury to natural resources.
 - c. Punitive damages and criminal fines.
 - d. Civil penalties may be recoverable.
2. Private lawsuits.
 - a. Property damage.
 - b. Bodily injury.
 - c. Emotional distress, including fear of exposure or fear of future disease.
 - d. Enhanced risk.
 - e. Punitive damages.

C. Litigation Approaches.

1. Federal and State regulatory agencies.
 - a. Letter identifying entity as a PRP.
 - b. Invitation to negotiate rather than litigate.
2. Private litigation often involves class action lawsuits.

D. Identification of all primary and excess policies during relevant period.

1. Determination of relevant period.
 - a. First date of generation, transportation, or ownership to date of last release.
 1. Yourself.
 2. Relevant subsidiaries.
2. Possible types of coverage.
 - a. Comprehensive general liability.
 - b. Environmental impairment liability.
 - c. Automobile liability.
 - d. First party property.
3. Gather copies of all relevant policies and create coverage chart.
 - a. Sources.
 1. Agents and brokers.
 2. Insurance carriers.
 3. Archives.
 4. Former employees.
 5. Professional assistance.
 6. Advertise.

E. Notify relevant primary and excess carriers.

1. Do not hesitate because:
 - a. No lawsuit has been filed.
 - b. Recent high deductibles/self-insured retentions.
 1. Right to target for defense/indemnity.

c. You are unsure regarding whether coverage exists.

1. Policy interpretation is heavily influenced by decisional and statutory law and your policies may contain beneficial provisions regarding defense and indemnity that are unexpressed but implied by law.

2. Make a record with your insurance carriers and force them to articulate in writing their exact position and the facts, law and policy provisions that they are relying upon in support thereof.

F. Typical carrier responses.

1. Rejection of tender.

2. Offer to "monitor" the situation.

3. Offer to provide negotiated partial defense under a strong reservation.

a. Items which are often amenable to negotiation.

4. Offer to provide total defense under a strong reservation.

a. Often includes attempt to reserve right to reimbursement of defense expenditures.

G. Carriers' duty to defend.

1. Whenever there is a potential of coverage.

2. Does duty to defend extend to entire action?

3. Does duty to defend extend to prelitigation claims.

4. Retention of insured's attorney client privilege.

H. Insured's right to designate defense counsel.

1. Depends on position taken by insurer.

a. Where handling of the defense could influence coverage issues.

b. Where carrier lacks an economic motive to present a vigorous defense.

2. Invitation to retain separate personal counsel at your own expense.

I. Carriers' duty to indemnify for cost of remediation.

1. Burden of proof.
2. Typical exclusions.
 - a. Pollution exclusion.
 - b. Property owned, occupied or rented to insured.
 - c. Premises alienated.
3. Occurrence problems.
 - a. Property damage.
 - b. Intentional acts.
 - c. Number of occurrences.
 - d. Continuing occurrences.
4. Voluntary remediation measures by insured via prelitigation settlement or otherwise.
 - a. The standard insuring agreement.
5. Late notice problems.
6. Insured's arguments for indemnification.
 - a. Mitigation of continuing damage.
 - b. Case trend.
 1. Favorable cases.
 2. Unfavorable cases.

J. Joint defense groups.

1. If a carrier refuses to defend, you need not consult with it.
2. If a carrier indicates its willingness to defend, coordinate all waiver of conflicts, etc., with it or risk creating additional strong coverage defenses.

LEGAL PRINCIPLES AND CASE CITATIONS

(Supplementing the Outline)

B(1)(d) Civil penalties may be recoverable.

People EX Rel. Younger v. Superior Court, 16 Cal.

3d 30 (1976). The civil penalties imposed pursuant to California Water Code, §13350, subd. (a)(3), subserve the compensatory purpose of alleviating the harm done by persons violating the section since all monies collected civilly may be used to assist a public agency in cleaning up waste or evading its effects on waters of the state. Thus, the civil penalties imposed pursuant to such section are not simply and solely punitive in nature but fulfill legitimate compensatory functions and are not punitive damages within the meaning of Government Code §818 so as to preclude the recovery of such monies from public entities.

United States v. Liviola, 605 F. Supp. 96 (1985).

Unlike the imposition of criminal penalties under the Resource Conservation and Recovery Act which requires willful intent, civil penalties are strict liability offenses not requiring proof of willful intent.

True v. United States (D.C. Wyo.), No. C82-052,

(March, 1985). The oil spill penalty of the Federal Water Pollution Control Act is remedial and compensatory in nature since its proceeds are used for cost of administration and clean up and it is imposed regardless of fault.

D(1). Determination of Relevant Period.

Buckeye Union Insurance Company v. Liberty Solvents and Chemical Company, Inc., 477 N.E.2d 1227 (Ohio App. 1984). An insurer that is on the risk during the period in which a CERCLA complaint arguably alleges that hazardous wastes were "released" into the surrounding soil and groundwater has a duty to defend.

Mraz v. American Universal Insurance Company, 616 F.Supp. 1173 (D.C. Md. 1985). A CGL insurer that was on the risk when hazardous wastes from the insured's operation were deposited in a landfill is obligated to defend the insured in a CERCLA action.

Keene Corp. v. Insurance Company of North America, 667 F.2d 1034 (1981). If a suit is brought against multiple individuals for asbestos exposure, there is a presumption that throughout the period of exposure, the victim was exposed to the insured's and other manufacturer's products. The burden shifts to the insurer defending the insured to show that the exposure did not occur during its policy.

E(1)(a). No lawsuit has been filed.

Miller v. Elite Insurance Company (1980) 100 Cal. App. 3d 739, 755. The duty to defend, where it exists, exists at the pre-litigation as well as litigation stages.

Walters v. American Insurance Company (1960) 185 Cal. App. 2d 776. Court held that carrier wrongfully denied coverage and refused to defend even though suit was never brought against the insured. The insured was threatened with suit and, upon the carrier's denial, settled the case.

E(1)(b)(1). Right to target for defense/indemnity.

Keene Corp. v. Insurance Company of North America, 667 F.2d 1034, 1049-50, (1981). The insured may select the policy under which it is to be indemnified.

ACandS, Inc. v. Aetna Casualty Surety Company, 576 F.Supp. 936, 943 (1983). When more than one policy applies to any given claim, the insured may designate the policy whose limits will apply and may also designate the policy under which the claim is to be defended.

F(3). Offer to provide negotiated partial defense under a strong reservation.

Continental Casualty Company v. Zurich Insurance Company (1961) 57 Cal.2d 27, 37. Each of several insurers independently owes a duty to defend its insured.

Pacific Indemnity Company v. Linn (1984), 590 F.Supp. 643, 654 (fn. 16); Sandoz, Inc. v. Employers Liability Assurance Corporation (1983), 554 F.Supp. 257, 267. Each insurer is jointly and severally liable for the entire cost of a defense and/or liability regardless of the liability of other insurers.

F(4). Offer to provide total defense under a strong reservation.

Val's Painting & Drywall, Inc. v. Allstate Insurance Company (1975) 53 Cal. App. 3d 576, 586. The insurer can avoid being bound by the judgment against the insured if it secures a nonwaiver agreement from the insured or makes an adequate reservation of rights.

F(4)(a). Often includes attempt to reserve right to reimbursement of defense expenditures.

Val's Painting & Drywall, Inc. v. Allstate Insurance Company (1975) 53 Cal. App. 3d 576, 582. If the insurer has a duty to defend, it may not thereafter seek reimbursement for its cost of defense from the insured.

Hogan v. Midland National Insurance Company (1970) 3 Cal.3d 553, 564. An allocation of expenses, if ever feasible, could be made only if the insurer produces undeniable evidence of the allocability of specific expenses; the insurer having breached his contract to defend should be charged with a heavy burden of proof.

Bertero v. National General Corporation (1974) 13 Cal.3d 43, 63. Where an insurer breaches its duty to defend, it is charged with a heavy burden of proof in order to allocate attorney's fees. In the absence of such a breach, the degree of proof by which the plaintiff must establish an allocation is that

generally required in civil actions, that is, by a preponderance of the evidence.

G(1). Carrier's duty to defend whenever there is a potential of coverage.

Gray v. Zurich Insurance Company (1966) 65 Cal.2d 263, 276. A duty to defend exists where there is a potential of coverage.

G(2). Does the duty to defend extend to entire action?

Blackfield v. Underwriters at Lloyd's London (1966) 245 Cal. App. 2d 271, 275. If one of several causes of action alleged against the insured is covered by the policy the insurer is bound to defend the action.

Ritchie v. Anchor Casualty Company (1955) 135 Cal. App. 2d 245, 254. If the Complaint filed against the insured alleges several causes of action, some of which are not covered by the policy, but one or more being within its terms, the insurer is bound to defend the action.

G(3). Does duty to defend extend to prelitigation claims?

See D(1)(a) above.

G(4). Retention of insured's attorney-client privilege.

American Mutual Liability Insurance Company v. Superior Court (1974) 38 Cal.App.3d 579. An attorney retained by an insurer to defend the dual interests of the insurer and its

insured represents both clients, each of whom is entitled to assert the attorney-client privilege. Neither client may waive the privilege on behalf of the other.

B(1)(a). Where handling of the defense could influence coverage issues.

Executive Aviation, Inc. v. National Insurance Underwriters (1971) 16 Cal. App. 3d 799, 810; Bogard v. Employers Casualty Company (1985), 164 Cal. App. 3d 602, 612. In a conflict of interest situation, the insurer's obligation to defend extends to paying the reasonable value of the legal services and costs performed by independent counsel, selected by the insured.

San Diego Navy Federal Credit Union v. Cumis Insurance Society, Inc. (1984) 162 Cal. App. 3d 358, 364. A conflict arises where coverage under the policy is disputed; in such a situation, the insurer must pay the reasonable value of legal services performed by independent counsel, selected by the insured.

Nike, Inc. v. Atlantic Mutual Insurance Company, 578 F.Supp 948, 949 (N.D. Cal. 1983). The choice of independent counsel belongs to the insured.

H(1)(b). Where carrier lacks an economic motive to present a vigorous defense.

Tomerlin v. Canadian Indemnity Company (1964) 61 Cal.2d 638, 648. In actions in which the insurer lacks an economic motive for a vigorous defense of the insured, or in which the insurer and insured have conflicting interests, the insurer may not compel the insured to surrender control of the litigation.

H(2). Invitation to retain separate personal counsel at your own expense.

Nike, Inc. v. Atlantic Mutual Insurance Company 578 F.Supp. 948, 949 (N.D. Cal. 1983). Where an insurer agreed to defend subject to a reservation of rights and suggested that the insured retain its own counsel at the insured's expense to associate with the attorney designated by the insurer, the reservation of rights created a conflict of interest entitling the insured to retain counsel at the insurer's expense.

Insurance Code §790.03(h)(1). It is statutorily prohibited to misrepresent to claimants pertinent facts or insurance policy provisions relating to any coverage at issue.

I(1). Burden of Proof.

Searle v. Allstate Life Insurance Company (1985) 38 Cal.3d 425, 438. Although the insured has the burden of proving the contract of insurance and its terms, as well as the loss, the

burden of bringing itself within any exculpatory clause contained in the policy is on the insurer.

Insurance Company of North America v. Forty-Eight Insulations, 633 F.2d 1212, 1225 (fn. 27) (6th Cir. 1980). The general rule is that the burden of proof to show coverage is on the insured. However, in continuing exposure cases where the insured is jointly and severally liable with other companies, this burden of proof is reversed.

Keene Corp. v. Insurance Company of North America, 667 F.2d 1034 (1981). If a suit is brought against multiple individuals for asbestos exposure, there is a presumption that throughout the period of exposure, the victim was exposed to the insured's and other manufacturer's products. The burden shifts to the insurer defending the insured to show that the exposure did not occur during its policy.

I(2)(a). Pollution exclusion.

Sample exclusion. "This policy does not apply to bodily injury or property damage arising out of the discharge, dispersal, release or escape of smoke, vapors, soot, fumes, acids, alkalis, toxic chemicals, liquids or gases, waste materials or other irritants, contaminants or pollutants into or upon land, the atmosphere or any water course or body of water; but this exclusion does not apply if such discharge, dispersal, release or escape is sudden and accidental."

United Pacific Insurance Company v. Van's West Lake Union, 664 P.2d 1262 (Wash. App. 1983). The courts which have considered the pollution exclusion have almost unanimously held it to be ambiguous.

See also H(2)(b)(1) and H(2)(b)(2) below.

I(2)(b). Property owned, occupied or rented to insured.

Sample exclusion. "This policy does not apply to property damage to (1) property owned or occupied by or rented to the insured, (2) property used by the insured, or (3) property in the care, custody or control of the insured or as to which the insured is for any purpose exercising physical control..."

Bankers Trust Company v. Hartford Accident and Indemnity, 518 F.Supp. 371 (1981). The owned property exclusion does not apply where the insured's property must be cleaned up in order to prevent damage to the property of third parties.

United States Aviex Company v. Travelers Insurance Company, 336 N.W.2d 838 (Mich. App. 1983). Toxic damage to groundwater beneath the insured's property was not excluded by the "owned property" exclusion as the groundwater was not owned by the insured. See also, Riehl v. Travelers Insurance Company, No. 83-0085 (D.Pa. Aug. 7, 1984); rev'd on other grounds, 772 F.2d 19 (3rd Cir. 1985).

I(2)(c). Premises alienated.

Sample exclusion. "This policy does not apply to property damage to premises alienated by the named insured arising out of such premises or any part thereof."

I(3)(a) Property Damage.

United States Aviox Space Company v. Traveler's Insurance Company, 366 N.W.2d 838 (Mich. App. 1983). Chemical contamination of groundwater is "physical injury to tangible property" and thus constitutes "property damage" under the standard CGL policy.

Kutsher's Country Club Corporation v. Lincoln Insurance Company, 465 N.Y.S.2d 136 (1983). Insurer's argument that discharge of petroleum did not result in "property damage" to wetlands deemed preposterous.

I(3)(b). Intentional acts.

Sample provision. "'Occurrence' means an accident," including continuous or repeated exposure to conditions, which results in bodily injury or property damage neither expected nor intended from the standpoint of the insured."

City of Burns v. Northwestern Mutual Insurance Company, 434 P.2d 465 (Or. 1967). This policy exclusion relates to injury caused intentionally. It is not sufficient that the insured's intentional, albeit wrongful, act has resulted in an unintended

harm; it is the harm itself that must be intended before the exclusion will apply.

Insurance Code §533. An insurer is not liable for loss caused by the wilfull act of the insured.

I(3)(c). Number of occurrences.

California Union Insurance Company v. Landmark Insurance Company (1983) 145 Cal. App. 3d 462, 473-474. Damage caused by continuous leakage of water was a single occurrence within the meaning of a policy's "one occurrence" provisions, under which all property damage arising out of continuous or repeated exposure to substantially the same general conditions was considered as arising out of one occurrence.

I(2)(d). Continuing occurrences.

Sample provision. "For the purpose of determining the limit of the company's liability, all bodily injury or property damage arising out of continuous or repeated exposure to substantially the same general conditions shall be considered as arising out of one occurrence."

Keene Corp. v. Insurance Company of North America, 667 F.2d 1034, 1047-48 (fn. 28). Court held that policies which provided that continuous exposure to certain conditions during a policy period constitutes a single occurrence for purposes of limit of liability provisions did not limit in any way the

insurer's liability when exposure extends over several policy periods.

I(4)(a). The standard insuring agreement.

Sample provision. (Cooperation Clause.) "The insured shall not, except at his own cost, voluntarily make any payment, assume any obligation or incur any expense other than for first aid for others at the time of the accident."

Gribaldo, Jacobs, Jones & Associates v. Agrippina Versicherungen A.G. (1980) 3 Cal.3d 434, 449. It is only when the insured has requested and then been denied a defense by the insurer that the insured may ignore the policy's provisions forbidding the incurring of defense costs without the insurer's prior consent, and under the compulsion of that refusal undertake his own defense at the insurer's expense.

I(5). Late notice problems.

Sample provision. "(a) In the event of an occurrence, written notice containing particulars sufficient to identify the insured and also reasonably obtainable information with respect to the time, place and circumstances thereof, and the names and addresses of the injured and of available witnesses, shall be given by or for the insured to the company or any of its authorized agents as soon as practical. (b) If claim is made or suit is brought against the insured, the insured shall immediately forward to the company every demand, notice, summons or other process received by him or his representative."

Clemmer v. Hartford Insurance Company (1978) 22 Cal.3d 865. The insurer must show prejudice to establish a breach based upon late notice. The burden of proving prejudice is on the insurer and will not be presumed.

Northwestern Title Security Company v. Flack (1970) 6 Cal. App. 3d 134. A 13-month delay in notifying the insurer of a claim against the insured did not establish "actual" prejudice.

I(6)(a). Mitigation of continuing damage.

Banker's Trust Company v. Hartford Accident and Indemnity Company, 518 F.Supp. 371, 373 (1981). Work done on insureds' property to prevent oil seepage was as a matter of law within coverage of policies protecting insureds from damages to property of third parties by use of their land.

I(6)(b)(1). Favorable cases.

Lansco, Inc. v. Dept. of Environmental Protection, 350 A.2d 520 (N.J. 1975). An oil spill caused by the deliberate act of a third party was deemed "sudden and accidental" and therefore outside the pollution exclusion.

Molton, Allen & Williams, Inc. v. St. Paul Fire & Marine Insurance Company, 347 So. 2d 95 (Ala. 1977). The pollution exclusion applies only to industrial pollution and contamination, not to a land developer who negligently caused sand and dirt to escape the property.

Farm Family Mutual Insurance Co. v. Bagley (1978)

409 N.Y. 2d 294. A farmer intended to spray chemical herbicide, but the dispersal of the chemical was held to be unintentional and therefore "sudden and accidental" and outside the scope of the pollution exclusion.

Travelers Indemnity Company v. Dingwell, 414 A.2d 220

(Me. 1980). Although the insured operated an industrial waste facility and intentionally dumped toxic materials, a duty to defend arose because the release of such materials may have been accidental.

Allstate Insurance Co. v. Klock Oil Co. (1980) 426

N.Y. 2d 603. The complaint alleged an oil company negligently installed a gasoline tank which leaked; the court held that any injury resulting from ordinary negligence is considered to be "accidental" and that "sudden" need not be instantaneous.

Niagara County v. Utica Mutual Insurance Co. (1981)

439 N.Y.S. 2d 538. A county that was accused of dumping and abandoning toxic materials was entitled to a defense as the complaint alleged the county negligently had failed to warn its citizens, to enforce regulations and to remove the chemicals. The court avoided the issue of whether the duty to defend could be based upon the alleged acts of pollution.

C.B. Heist Caribe Corp. v. American Home Assurance,

640 F.2d 479 (3d Cir. 1981). An insured's employee allegedly was exposed to toxic chemicals while cleaning chemical storage

tanks; the court held the duty to defend arose because there was no basis in the complaint for a finding of a discharge onto land, the atmosphere or water nor that any such discharge was non-accidental.

A-1 Sand Blasting & Steam Cleaning v. Baiden (1981)
632 P.2d 1377. While the act of painting a bridge was intentional and the resulting damage to cars foreseeable, the act was not committed for the purpose of inflicting injury.

Bankers Trust Co. v. Hartford Accident & Indemnity
(1981) 518 F.Supp. 371. A leaking fuel pipe polluted the insured's property adjacent to a river; the court held that the owned property exclusion did not apply since clean-up was done to prevent damage to the property of third party.

Jackson Township Municipal Utilities Authority
Bartford Accident & Indemnity Co. (1982) 451 A.2d 990. An insured, as part of its operations, collected liquid wastes and dumped them in designated landfills. The pollution exclusion, which is merely a restatement of the definition of "occurrence", was held not to apply. This situation was distinguished from situations involving industrial polluters.

United Pacific Insurance Co. v. Van's Westlake Union, Inc. 664 P.2d 1262 (Wa. 1983). The pollution exclusion was held to apply only to active polluters and constituted a restatement of the "occurrence" definition. The pollution exclusion did not

apply to a gas station whose underground gas line leaked 80,000 gallons of gas.

United States Aviex Co. v. Travelers Insurance Co., 336 N.W.2d 838 (Mich. App. 1983). Chemicals seeping into the ground water following a fire at the insured's chemical plant was not excluded by the "owned property" exclusion as ground water was not owned by the insured.

Reliance Insurance Company of Illinios v. Martin, 467 N.E.2d 287 (Ill. App. 1984). The escape of carbon monoxide may be "sudden and accidental" even though it occurred over a period of time.

Payne v. United States Fidelity & Guarantee Company, ___ F.S. ___ (S.D. Fla. 1986). Where pollution does not result from the regular course of the insured's business and where there are no allegations in the EPA or DER complaint compelling the determination that the insured intended or expected the release of hazardous substances into the environment or the damages that such releases cause, the pollution exclusion does not entitle the insurer to avoid its defense obligation.

I(6)(b)(2). Unfavorable cases.

American Casualty Co. of Reading, Pa. v. Minnesota F.B.S. Co., 270 F.2d 686 (8th Cir. 1959). An insured fertilizer plant blasted material over six years, allowing the release of

ammonia fumes, powders and dust. Such activities were deemed not "accidental."

Barnet of Indiana v. Security Insurance Group, 425 N.E.2d 201 (Ind. App. 1981). A pollution control system regularly malfunctioned with the insured's knowledge; an accident resulting from loss of visibility due to such malfunctioning was held not unforeseeable and unpredictable.

City of Milwaukee v. Allied Smelting Corp., 344 N.W.2d 523 (Wis. App. 1983). A smelting company discharged acid into a city sewer system for two to ten years. Damage to the sewers was held to be not "sudden and accidental." "Accident" was held not to include exposure injuries occurring over a period of time.

Great Lakes Container Corporation v. National Union Fire Insurance Co. of Pittsburgh, Penn., 727 F.2d 30 (1984). A container corporation deposited pollutants on its own property as part of its regular business activity in reconditioning barrels, and thereby polluted soil, ground water, and surface water. This activity was held to fall squarely within the pollution exclusion.

American States Insurance Co. v. Maryland Casualty Co., 587 F.Supp. 1549 (Mich. 1984). The complaint alleged that the insured generator of materials continuously dumped them at outside dump sites; the complaint included no allegations suggesting that such dumping was sudden and accidental. The court held there was no duty to defend.

Transamerica Insurance Company v. Sunnes, ___ P.2d ___
(Or. App. 1985). Where an insured intentionally discharges acids into a city sewer system over a period of years, the discharge is not "sudden and accidental"; under these facts, the pollution exclusion precludes coverage.

Waste Management of Carolinas, Inc. v. Peerless Insurance Company, ___ S.E.2d ___ (N.C. 1986). Waste material that has leached into and contaminated groundwater is clearly excluded by the basic terms of the pollution exclusion. Where the "sudden" release or escape of contaminants is neither expressly nor impliedly alleged, the "sudden and accidental" exception to the exclusion does not apply and the insurer has no duty to defend.

I(1). If a carrier refuses to defend, you need not consult with it.

Grant v. Sun Indemnity Company (1938) 11 Cal.2d 438, 440.
It is a well-recognized rule that the insurer may not repudiate the policy, deny all liability, and at the same time be permitted to stand on the provisions inserted in the policy for its benefit.

Drinnon v. Oliver (1972) 24 Cal. App. 3d 571, 580.
Once an insurer has wrongfully denied liability and refused to defend, the insured is released from his obligation to leave the management of the claim to the insurer and is justified in proceeding on his own account in whatever manner seems proper to him under the circumstances.

APPENDIX C

"Plan For A Public Information Program -
Nuclear Waste Project Office," prepared by
Nancy Price, May 1985.

APPENDIX C

PLAN FOR A PUBLIC INFORMATION PROGRAM
NUCLEAR WASTE PROJECT OFFICE

Prepared for

Dr. Barbara Cloud, Chairperson
Department of Communication Studies
University of Nevada Las Vegas

and

Senator Thomas J. Hickey, Chairman
Government Affairs

Prepared by

Nancy Price

May 1985

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FOREWORD

This plan for a Public Information Program is the result of my work at the 1985 Session of the Nevada Legislature for an independent study class in Communications at the University of Nevada Las Vegas. My original intent was to study the effects newspapers in the state have on the nuclear site selection process. While doing the research, my attention was given to a project being developed in the Nuclear Waste Project Office which is located in the Governor's Office at the Capitol Complex in Carson City.

I became familiar with the organization and the legislation proposed to provide a framework in state government to oversee the site selection process. Senator Thomas J. Hickey, Chairman of the Government Affairs Committee, also chairs the Legislative Commission's Subcommittee to Study the Disposal of High-Level

Radioactive Waste. Senator Hickey suggested that since the Nuclear Waste Project Office was beginning to put together an integrated program for public information and public involvement relative to the proposed site at Yucca Mountain, that perhaps my work could provide comments, suggestions and thoughts relative to this program.

This document, prepared for Dr. Barbara Cloud and Senator Thomas J. Hickey, represents the results of my work and the valuable help provided to me by organizations such as the Nuclear Waste Project Office, the National Conference of State Legislatures, the Conference on Alternative State and Local Policies, the North Las Vegas Chamber of Commerce, the Department of Economic Development, AT&T Communications, and numerous state and library personnel.

It is my hope that the ideas presented in this paper may be of value in the development of a statewide information system.

Nancy Price

OVERVIEW

Preparation of the Plan for a Public Information Program was mandated by the authority of Public Law 95-91, 42 U.S.C. 7101, Department of Energy Organization Act and subject to legislation, regulations and policies applicable to the Nuclear Waste Policy Act of 1982 P.L. 97-425. Pursuant to this award, a directive calls for a mechanism by which State Legislators, State government officials, local government officials, and the citizens of the State can become informed and express their views regarding the potential location of a high-level radioactive waste repository in Nevada (Notice of Financial Assistance Award, Instrument no. 10461, Attachment A Page A-2, . c.).

This Plan for a Public Information Program as presented in this document provides many private/public initiatives which could be taken to ensure a fair and meaningful forum for public involvement relative to the proposed nuclear waste repository at Yucca Mountain. This plan seeks autonomy to the extent that its existence will transcend many administrations, therefore, when this body presents information on a "state's position," it refers to the compilation of data at any given point in time.

This Plan should prove to be a unique document in many respects. It is an attempt to specifically seek support or location of a satellite office in Las Vegas, Nevada. Las Vegas is the largest population center affected by the proposed site. The labor force most affected is there. Nellis Air Force base government contractors, with expertise in research and development are there (i.e. REECO). The Department of Energy is there. Las Vegas has and needs the information to a greater extent than any other part of the state.

Further, it may be the first plan in the nation specifically focusing on a computer network set up for the retrieval of information by the public from locations such as libraries or universities using a method which incorporates the Defense Intelligence Agency's catalogue system as well as standard library science methods.

Another unconventional aspect of the Plan is its proposal to nurture, through private and public partnerships, that information that has the greatest potential for influence in the site selection process from all points of view. This can be done by adopting a philosophy which acknowledges the political influence involved in the selection process as well as the technical considerations. The Plan calls for the formation of multi-member "Task Force," representing business people, local governments, and the citizens, who will oversee the balance of view in the information selected for publication and dissemination. It is for these reasons that the location of a satellite office be at a university, community college or library rather than local government facilities.

Before this Plan was formulated, the Chairperson of the University of Nevada Las Vegas Communications Department, and the Director of Community Services for the Clark County Library were contacted and development-related topics were discussed. This document represents a coordinated effort with those administrator who are potentially affected and who would be involved in the implementation of the Plan.

Dr. Barbara Cloud, Chairperson of the Communications Studies Department of the University of Nevada Las Vegas, Iris Fieldman, Director of Community Relations for the Clark County Library, and JoAnn Sheerin, Board of Regents have provided advice on the overall emphasis of the Plan.

Following interim review by Senator Thomas J. Hickey, Chairman of the Legislative Commission's Subcommittee to Study the Disposal of High-Level Radioactive Waste, the Plans conclusions will be presented to Robert R. Loux, Director of the Nuclear Waste Project Office and Joseph C. Strolin, Chief of Planning of that office.

It is my hope that the close-working relationship between our libraries, universities, colleges and state leaders will become a model for continued cooperation in an effort to address one of the most serious questions our country and this state will face.

The Plan, if accepted, will be presented to both the State University and the State Library Systems, in order to establish their ability and interest in locating the satellite information office in their facilities. In order to implement the proposed strategies, a range of initiatives is presented, all of which are designed to assist in the effort at the local and state levels to involve and solicit the cooperation of the state's citizens into this extremely important decision which will have an ultimate impact, not only on the State of Nevada, but on the United States as well.

Information compiled over the years will change as information and education levels of the state's citizenry increases. The "state's position" at any given time should be based on the information collected from this office and be compiled in such a way that trends can be established and gaps in information filled. The independent perception of the university system as opposed to local government entities is reason for associating with the university system over locations within the local government agencies.

The approach outlined in the Plan takes a logical process including a short and long range timetable of goals as stated in this study. The ultimate document would identify specific dimensions of the Public Information Program which could result in substantial benefit to the State.

This orientation resulted in the development of:

1. A **Development Strategy** to set the goals of the program.

Public Opinion

Political Influence

Technical Information

2. A **Materials Search and Maintenance Strategy** to create a retrieval system of information for use by the public and public officials.

Update State's Library Computer Bank

Co-Op with the university system's Proposed Statewide University Management Information System System

3. An Implementation Strategy to handle the logistics and administrative needs of the Public Information Program.

Establish Autonomy

Establish Mechanism for Statistical Analysis

Establish Location in Las Vegas

Establish Task Force or Editorial Staff

Establish Dialogue with University Management Information System Project

Update Library Computer Banks

Clarify Ownership and Classified Access Policy with Federal Government.

PLAN FOR PUBLIC INFORMATION PROGRAM

NUCLEAR WASTE REPOSITORY SITE SELECTION

DEVELOPMENT STRATEGY

The Notice of Financial Assistance Award document which is attached calls for , "a mechanism for State Legislators, State government officials, local government officials, and the citizens of the State to become informed and express their views regarding the potential location of a high-level radioactive waste repository."

The first and most important point to keep in mind in examining this study is the concern among both policy makers and the general public in the state, apparent in both legislative and executive actions as well as media coverage, in developing strategies and policies to ensure fair and comprehensive airing of the issues as they relate to the people in the state. The key to understanding the direction of this strategy lies in recognizing the response of different sectors of the state to the economic possibilities as well as the ecological and safety aspects of the site, and to continually monitor changes and provide a forum for expression of the concerns and opinions. Assurance is needed to avoid any misconception of executive, federal or any other power base control of the information collected and published.

In order to accomplish this, the following areas should be considered:

1. Public Opinion
2. Political Influence
3. Technical Information

PUBLIC OPINION

The Statement of grant objectives provided by the Federal Government dictates that citizens of the State "become informed and express their views." To this end, the Project Office staff and independent contractors having specialized expertise in statistics could set up a mechanism for independent assessment of the citizens throughout the state on all aspects of the proposed nuclear waste repository program. It is necessary to have the information available, but more importantly to identify those people who will use the information and may express their opinion. Polling and telemarketing techniques should be utilized to identify the information gaps which exist in people's knowledge about the nuclear waste repository program and the individuals, groups and character profile of the types of people that will be using the information program.

This is an ongoing project that would include but not be limited to:

1. Completing a short information sheet on each requestor of information with name, address, phone number and organization if appropriate. This would include those people who call in on toll free lines and described later.

2. Initiate and maintain a working relationship and open communications with city, county and state governments as well as community service groups and the business community with ongoing documentation of their overall concepts and shifts in opinion - much like a medical chart.

3. Conducting in-depth surveys for opinion in various parts of the state in order to develop information on the general population.

4. Monitor closely the trends in the high schools and colleges keeping in mind that this project will extend for many years; these students are the future targets in #2 above.

5. Conduct exit polls at seminars and film presentations.

Both the University of Nevada Reno and Las Vegas have organizations in place which this program can emulate. They are the Center for Business and Economic Research in Las Vegas and the Bureau of Business and Economic Research in Reno. The marketing and statistical analysis expertise is located at the university as well as with private enterprise.

POLITICAL INFLUENCE

Will Rogers said, "I love a dog. He does nothing for political reasons." That's not the case with people, especially when enormous amounts of money are involved. It is imperative that the Director of this Information Program be politically astute and maintain an open and unbiased stream of information and opinions on all sides of the issue soliciting, if necessary, important segments of the community. In order to accomplish an autonomous profile, a Task Force or Editorial Board should be appointed to oversee the production of a Newsletter which will be the primary vehicle for the dissemination of information. The Nuclear Waste Project Office strategy includes the "Design and implementation of a monthly State newsletter which will be a vehicle for providing current information relative to the DOE program and the State's activities in relation to that program. The newsletter would also communicate information about meetings, State actions and positions, and other relevant activities and materials".

A Task Force or Editorial Board is difficult, I understand. However, a simple straight-forward policy and responsible representation from key elements of the political power structure of the state will meet the real purpose of this project and would ward off possible criticism.

TECHNICAL INFORMATION

Since there has long been a perception of distrust of possible strings attached to Federal Grants, and since there does not seem to be any stipulation in the description of the grant, I feel it would be prudent to request a memo from the Federal government showing clear ownership by the state of the information collected and that the Director of the Information Program or a member of the Nuclear Waste Project Office have a security clearance in order to communicate at all levels of government investigations and information sources. At this point, classified information is not a problem, however the potential is there.

Again, this project will transcend many administrations. Although there may be no question now on the ownership of the collected information, the possibility exists that a problem may arise in the future given the nature of the subject and character of the players.

MATERIALS SEARCH AND MAINTENANCE STRATEGY

The development of an indexing system should be done by professionals. The use of library experts, including the military system such as that used by the Defense Intelligence Agency should be used; the system should be a model system not a make do system.

For the short range plan, the University of California at Davis has a system that includes Nevada. The use of their data base as a start-up point would enable the process to get started and the program will include updating the state's library computer base. Descriptive lists and materials showing what is available will be distributed widely and requests for information would be responded to expeditiously.

COMPUTER SYSTEM

Attachment 2 to this document is an article which appeared in the Winter 84-85 issue of Nevada Review of Business & Economics. The background information in this article would be an ideal starting point for discussion on developing a statewide communication system at the universities and/or the libraries.

The university system has been working on a proposal for a statewide information system for the past four years. Two studies have been done at a cost of \$790,000 to date. The estimated cost is between five and seven million dollars. A cooperative effort with them may simplify matters and provide a model system for the state.

MAILING LISTS

The creation and maintenance of mailing lists are crucial elements to the effectiveness of this program. Current lists include such entities as local governments, service groups, etc. As the program develops, and particularly the controlled methods of gathering and documenting information, lists of names identified and codified by level and nature of interest can be established. This will be significant in determining at any given time frame, who is receiving information, their general level of education on the subject and what type of information may be needed.

FILMS

Included in the library will be films and other audio-video materials cataloged and available for public use.

SPEAKERS BUREAU

The organization of a speakers bureau will involve the same political decisions mentioned previously. The straight technical information will need to have both sides represented. This will not be an easy task because of the resources of the Federal government. It is important however, to have representation.

PRESS RELEASES

Press releases should be developed and released on a regular basis. Again the point of view needs to be based on information obtained by way of public input and new technical information as it is released.

DIRECTORY OF AGENCIES

An ongoing and updated directory should be maintained in order to direct inquiries to the proper agencies and information sources. This would include information offices in other states.

INTER-STATE COMMUNICATIONS

Efforts are being made across this country to deal with the problems of nuclear and toxic waste. This office should have access and participate in disseminating information to other states.

IMPLEMENTATION STRATEGY

The implementation of this plan is easy. The difficulty is in making the various decisions. I hope the proposals presented here are considered independent of one another rather than in total. The philosophy and direction of the plan may not be acceptable but I would hope that updating the library computer banks and a co-op arrangement with the university on a statewide computer network be pursued regardless of other proposals.

The first step to implementation is to establish a policy stating the autonomous position of this office. The information collected and disseminated will be based on statistical analysis and judgement of a Director and Task Force or Editorial Staff. The funding of the program by the Legislative Commission's Subcommittee will provide the check and balance system. A clear understanding will exist with the Federal Government regarding possible classified information and the ownership of the data collected.

A satellite office will be established in Las Vegas similar to the Bureau of Business & Economic Research at the University of Nevada Reno. Once a decision is made and acceptance is given by the university and/or library system, start up could begin immediately with the installation of an 800 number (catchy number like 800-NUK-INFO). A special number can be reserved now. It takes seventeen working days to establish an 800 number in Nevada. The preliminary information received will be used to develop the tracking system.

Development of a long-range program should begin by calling on the enormous pool of talented people in the State system now. The following people should be consulted: Dr. Barbara Cloud, UNLV; Iris Fieldman, Clark County Library; Fred Dugger, Director, State Data Processing Department; Lloyd Case, UNS Reno (788-4330); Mike Mizel, GSA; Don Jessup, Yong Koh, and Fritz Grupe of UNR; JoAnn Sheerin, Regent, Warren Fox, Vice Chancellor in Reno, John Schier, AT&T; and other communication experts.

I have enjoyed working on this project, and I am honored to have my input requested.

APPENDIX D

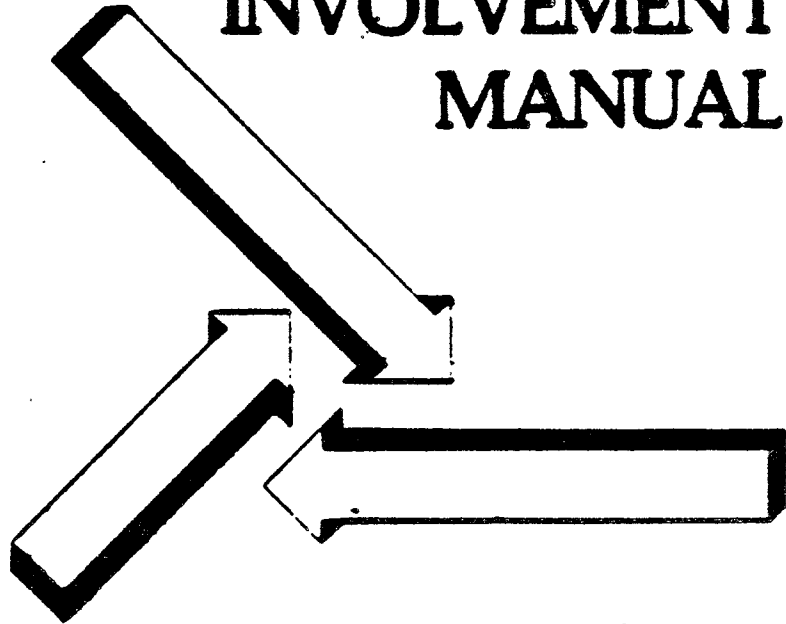
"The Public Involvement Manual," James L. Creighton, January 1981.

7/12/85

APPENDIX D

JAMES L. CREIGHTON

**THE PUBLIC
INVOLVEMENT
MANUAL**



**Abt Books/CAMBRIDGE
MASSACHUSETTS**

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Preface

THIS MANUAL HAS BEEN DESIGNED TO PROVIDE YOU WITH practical guidance in designing and conducting public involvement programs as part of agency or corporate decision making.

During the 1960s and 1970s there was an explosion of programs under the names "citizen participation," "public involvement," "community involvement," "citizen involvement," and so forth. Although some people have argued that the variations in these terms represent distinctions about the degree to which the public is an integral part of decision making, I think these distinctions are semantic quibbling. What we are talking about is including (involving, consulting, inviting the participation of) the public in the important decisions of government or corporate entities. For the sake of convenience, I refer to these processes as "public involvement," simply because it is the term I hear most often. Even though ten years ago the most frequently used term might have been "citizen participation," we are still talking about the same animal, but using a different name for the species.

Another convention used throughout is to refer to the entity sponsoring the activity as "the agency." I recognize that

the reader may represent a government agency, but could just as easily represent a corporation working with the public to site a facility, a planning firm designing a project, or a community seeking information about working effectively with volunteer groups. I believe there is something in this manual of value for each of these people. I simply found it easier to lump all these wonderful people under that anonymous term "the agency." Forgive me if it does not fit, but read on nevertheless.

A word about the state of the art of public involvement. Formal public involvement requirements first began to appear in the legislation of the 1960s that launched the War on Poverty. In the 1970s the Congress attached public involvement requirements to almost every piece of significant environmental legislation. Presidential directives have added additional requirements that every agency prepare consumer representation plans. In some cases public involvement directives have been passed down to state and local agencies as a condition for using federal funds. In other cases the amount and kind of public involvement required at the state and local levels put the federal programs to shame.

Regardless of the level of detail of agency requirements, the actual legal mandate for public involvement usually goes back to a single line in the law, which says something like: "Citizens shall be consulted in the decision making of the agency." The statement is hardly a model of specificity for what's expected, but that's not too surprising. When a politician sponsors a social innovation—which formal public involvement has been—he or she doesn't want to get caught up in a discussion of the implementation mechanisms. There is too much danger that a fellow legislator, whose vote is essential, will become enmeshed in supporting or opposing a particular mechanism, and the vote on the innovation will be lost. Thus, the essential dicrum is: "Thou shalt consult with the public"; it is left to the agencies to figure out what on God's earth that means.

The first people to take a stab at it—the point men (or point persons, if you will)—get all bloodied trying out this strange and different thing. While they are back at the ward being treated for their wounds, they begin to compare notes. Some have come back less bloody than others. The trick is to find out whether they did something different or were just lucky.

By sharing war stories, people develop a lore about things to do or not do. Following this lore will usually get you

to a ~~semi~~bloody state: that is, some things you know you should always (never) do; other things you've learned will work most of the time. But even when you follow the lore and your own wisdom faithfully, sometimes you still get bloodied.

Eventually the public has experienced enough public involvement programs, the courts have reviewed enough cases, and the decision makers have reviewed enough public comment to reach a general agreement as to what constitutes "reasonable" or adequate public involvement. Just as there is a social consensus that a majority vote carries a decision, even if 49.9 percent of the voters didn't like that decision, there is a consensus that the public involvement process has adequately reflected public sentiment. This might be called the state of "clean."

Public involvement is currently in the semi-bloody state. There are well-known land mines that you can be directed to avoid. There is some general advice that usually is worth following. But every now and then you'll still get bloodied. This is not necessarily an indication of your inadequacy in conducting public involvement programs. Things still blow up in the face of those of us who are the most experienced practitioners of the art.

This manual is simply the best lore that I, as one of the battered veterans of the field, can pass on to you. It presents the conclusions that one could reasonably derive from the war stories. It is the best available advice that I know—and I think it is the most complete advice yet available, but it is just that—advice. The advice that works well in one person's life may not work well in another's.

For this reason I have attempted to provide principles rather than specific prescriptions. Given the present state of the art, anybody who thinks there is only one way to conduct a public involvement program is a damn fool. This manual points out the important issues and the most dangerous pitfalls and exposes you to the range of techniques that have proved effective to date. But don't overlook your own common sense or avoid the hard work of thinking through your specific situation. The purpose of the manual is not to prescribe a solution to your problem, but to identify the alternatives and the issues to be examined. The public involvement plans presented here should not simply be copied in their entirety. Instead, consider how they have been used to solve the particular problem they were designed to address, and adapt the principles to your circumstances.

I hope this manual will provide you with sufficient information to make choices wisely. It is organized so that you can easily find the material appropriate to your situation. Occasionally a concept that has been discussed under one topic is also included under another, because it is important to both topics, and I have not assumed that the person using the manual will read both parts of the manual.

Just as the price of liberty is eternal vigilance, the price of democracy is continuous hard work, building and rebuilding the mechanisms for expressing the public will. Lack of trust and confidence in government institutions is a central problem of our democracy today, and I see public involvement as the means of restoring that faith. I hope this manual reflects the excitement and the challenge of this endeavor.

James L. Creighton
Saratoga, California
January 1981

Chapter 1

The Rationale for Public Involvement

EFFECTIVE PUBLIC INVOLVEMENT REQUIRES NOT ONLY THAT specific procedures be utilized, but also that activities be carried out according to the spirit of public involvement. This chapter provides the philosophical and practical arguments for public involvement and explains why it is in the best interests of both the agency and the public.

WHAT IS PUBLIC INVOLVEMENT?

But first, what is public involvement? Public involvement is a process, or processes, by which interested and affected individuals, organizations, agencies, and government entities are consulted and included in the decision making of a government agency or corporate entity. Typically a variety of techniques are used as part of this process, including individual interviews, workshops, advisory committees, informational brochures, surveys, and public hearings.

THE DIFFERENCE BETWEEN PUBLIC INVOLVEMENT AND PUBLIC INFORMATION

Many people wonder how public involvement differs from the public information programs that many agencies have conducted for a number of years. The difference is that the purpose of public information is to *inform the public*, while the purpose of public involvement is both to *inform the public* and to *solicit public response* regarding the public's needs, values, and evaluations of proposed solutions. One measure of an effective public involvement program is whether you can identify specific ways in which the final decision is responsive to public comment. If nothing has changed as a result of the program, it has probably met the letter of the law but not the spirit of public involvement.

Obviously, in order to provide informed comment, the public must receive information from the agency. People cannot evaluate alternatives unless they have been adequately informed of those alternatives and the consequences of each. So public information is always a central element in any public involvement program.

Since the public must be informed of both specific proposed decisions or actions and general information about the agency's mandate, there will usually be two kinds of public information activities: (1) those designed to support a public involvement program regarding a specific decision or action, such as a planning study or proposed power rate increase; and (2) those that provide continuing general information about the agency's operations, whether these involve continuous liaison with the media, presentations to civic groups or schools, or issuing educational brochures. Historically, public affairs offices within agencies have been oriented toward this second function, but the more recent emphasis on public involvement creates demands for additional kinds of services to be provided by public affairs offices, namely, those that support public involvement programs conducted by the other functional areas of the agency.

Of course, the final measure of the effectiveness of a public involvement program is not just that the public has been informed, but that public comment has been solicited in a manner such that it has contributed to making a decision that is technically and economically feasible, environmentally sound, and supported by a large segment of the public.

THE CONSENT OF THE GOVERNED

The fundamental justification for public involvement is the axiom of a democratic society that the government derives "from the consent of the governed," and that people should have the opportunity to participate in the decisions that affect them. In this manner the public can hold the government accountable for its actions and thereby both protect the rights of the citizenry and ensure public support of government actions. A government must have legitimacy, whether that legitimacy is derived from birth (a monarchy), from divine authority (a theocracy), or from the broad support of the people (a democracy). Without legitimacy, every action of government would be questioned and resolved only through the use of force. Every four years we accept the legitimacy of an elected president, even though that president may have received only a few more votes than his opponent. The process by which the decision was made—the election—bestows legitimacy on the decision itself.

Government agencies must also have legitimacy. No agency can survive if every action it takes is challenged or questioned. But to achieve this legitimacy, the agency must follow a decision-making process that is visible and credible to the public. There is no way to make everyone happy all the time. But if an agency has created a decision-making process that is legitimate, people who oppose a particular decision will at least recognize that the manner in which the decision was made was fair and open. Unless the public generally accepts that an issue is resolved when an agency makes a decision, that agency will be unable to perform effectively. In Chapter Three I discuss the question of "winners" and "losers" within the context of public perceptions of government decisions.

WHY THE DEMAND FOR PUBLIC INVOLVEMENT?

While the justification for public involvement rests on the fundamental premises of democracy, the demand for formal programs of public involvement is relatively new, so it is worth examining the social changes and political forces that have created this demand.

Size and complexity of government

When Abraham Lincoln was president there were a little over 2,000 full-time civil servants in Washington, D.C. Now the number of agencies is more than this, and federal employees number in the millions. Many social commentators believe that the size and complexity of government have led to the public's sense of alienation from it. The "faceless bureaucrat" is frequently the subject of scorn and sarcastic humor. Where once an agency employed a local representative who was known in the community, that one person has been replaced by many employees with widely differing backgrounds, who are transferred periodically around the country.

Having lost this personal contact with the government, the public feels a loss of control. Government—or the faceless bureaucrat—is usually seen as making decisions that affect people's lives without their having any control over it. This has led to demands for public participation in government decision making.

Increased social regulation

Since the early 1930s there has also been a steady increase in the areas regulated by government action. The philosophy of government used to be "let the buyer beware" and "that government is best that governs least." Now numerous regulations affect safety, health, consumer protection, environmental protection, and so forth. While the amount of regulation considered appropriate changes from administration to administration, government continues to play a much larger role in people's lives than it once did. And as government intervention increases, there are reciprocal demands from the citizens to exercise control over government power. Many of these demands come in the form of public involvement in agency decision making.

Technical complexity of government decision making

American society as a whole has become increasingly specialized, with decisions requiring extremely high degrees of technical sophistication. Politicians and other decision mak-

6 GENERAL PRINCIPLES

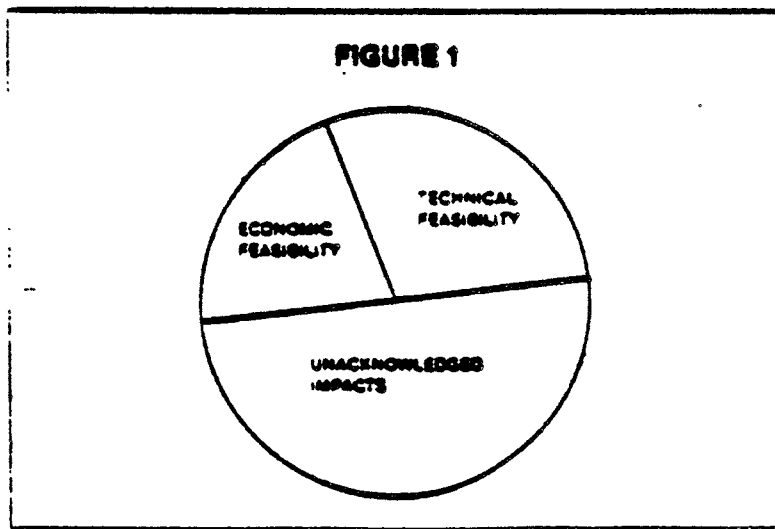
ers have become dependent on small groups of technicians to recommend major courses of action. Even within agencies, studies that previously might have been conducted by one person now require an interdisciplinary team of specialists.

The result is that technicians often become an elite group with their own esoteric language, rites of membership, and so forth. They even refer to the need to explain things in "layman's" terms—a word once used to distinguish people not of the priesthood.

By relying on the recommendations of their technical staff, agencies have often operated within narrow definitions of their mandate, ignoring issues of environmental or consumer protection and considering the broader implications of their actions only under pressure from citizen groups. The result is suspicion and resentment on the part of the public and demands for more control over these technical elites, often in the form of public involvement.

Changes in the basis for assessing projects

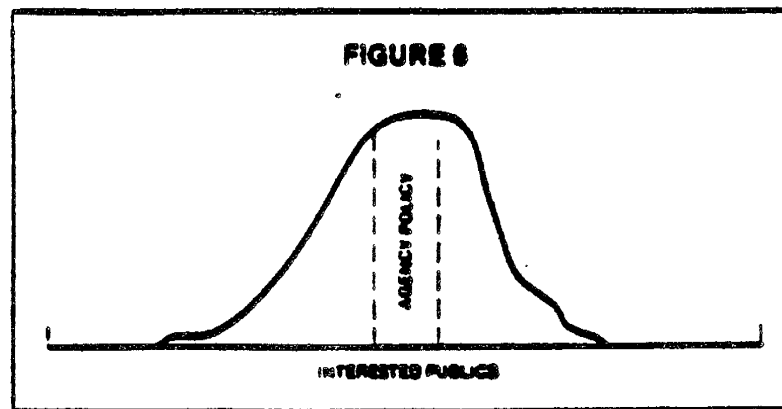
Within the past fifteen years there has been a rapid evolution—almost a revolution—in the evaluation of government actions. A constantly expanding circle of new factors must be taken into account. If, for example, a new water project were proposed, there was a time when the only factors considered were its technical and economic feasibility (see Figure 1).

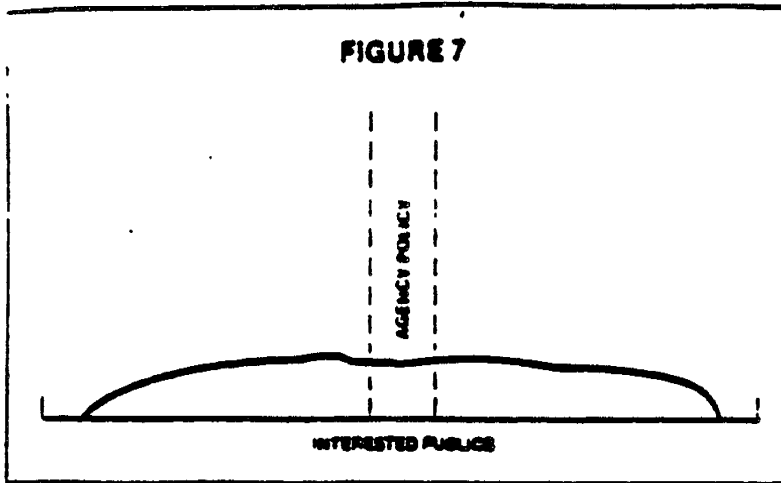


Other agencies concerned with natural resources and those that deliver human services have experienced a similar expansion in the factors that must be considered, and there is no assurance that this expansion has yet ended. Not only has the number of factors to be considered increased dramatically, but other agencies and interest groups serve as advocates for these specific concerns. To return to our water example again: local and state health departments and the U.S. Environmental Protection Agency are all significant actors in evaluating the health and safety of water supplies. State and federal fish and wildlife departments, sportsmen groups, and environmental groups are all advocates for the protection of fish and wildlife. Many agencies and groups express concern about water conservation practices and irrigation efficiencies. The social impacts are evaluated by various government agencies, and concerns about such impacts are voiced by numerous public groups.

Rather than being faced with a single monolithic public, the decision maker is faced with a multitude of publics, including agencies, groups, and individuals. Each has its own interest to advocate and protect, often regardless of the interests of others.

One way of describing what has happened is to say that up until the 1960s there was a consensus that if an action was technically feasible and economically justifiable, then the government was acting on behalf of all the publics by taking the action. This consensus can be portrayed as a bell-shaped curve (see Figure 6), with the vast majority of citizens in "the great middle." By operating within this consensus, agencies were seen as acting legitimately and appropriately.





By the mid-1960s, however, it was clear that this consensus was breaking down. Groups advocated a wide range of actions based on different—often conflicting—premises (see Figure 7). This change had two important implications for agencies: (1) no single point of view necessarily represented a clear-cut majority; and (2) agencies that continued with the same policies that had guided them through the 1950s were seen as benefiting only certain limited interests, rather than acting on behalf of the general public. Most agencies develop a natural "clienteles"—those interest groups that supported the creation of the agency or utilize its services. But to the degree that agencies continued to represent only their clientele, they were perceived by the other publics not as a neutral party but as an advocate for particular interests. As a result, they lost some of their legitimacy and credibility as agencies. This in turn resulted in demands by various interest groups for increased participation in agency decision making.

GOALS OF PUBLIC INVOLVEMENT

Many agencies that had formerly considered themselves to be "the good guys" found themselves being questioned, challenged, criticized. The loss of government legitimacy and the shifts in social values by which government actions are measured have affected all aspects and levels of government.

All government agencies are confronted with the problem of restoring credibility to their decision-making processes, incorporating widely differing points of view in these processes, and building a new consensus for their actions. These three needs are the primary goals of public involvement:

1. *Credibility.* By creating an open and visible decision-making process to which everyone has equal access, public involvement provides a means of making the decision-making process credible to groups with highly divergent viewpoints.

2. *Identifying public concerns and values.* Because various interest groups have fundamentally different points of view, they will evaluate any proposed action from different perspectives. Public involvement provides a mechanism by which agencies can understand the problems, issues, and possible solutions from the particular perspectives of various interest groups.

3. *Developing a consensus.* With highly divergent public viewpoints, no single philosophy can guide all agency actions, and consensus must be formed on an issue-by-issue basis. Public involvement can lead to a consensus on specific agency actions.

To the extent that an agency's public involvement activities attain these goals, they not only provide a base of support and legitimacy to the agency's program based on the public's desires, they also serve a broader social purpose in a democracy by assisting in developing a new social consensus that takes into account the concerns of all interest groups.

APPENDIX E

"Nevada Hazardous Waste Report - 1985".

APPENDIX E

NEVADA HAZARDOUS WASTE REPORT

1985

Units of Measure: All quantities are reported in tons (2,000 lbs/ton). Waste quantities are reported by volume using density, if known, or the weight of water (8.34 lbs/gallon).

Mixtures: All mixtures of more than one waste code are reported using the following mixture code:

D wastes	DOMX
F wastes	FOMX
P wastes	POMX
K wastes	KOMX
U wastes	UOMX
Multiple waste types (i.e. mixtures of D & F or P & K)	MOMX

NOTE: PLEASE SEE ATTACHMENT 1 FOR EXPLANATION OF THE MIXTURE CODES (40 CODE OF FEDERAL REGULATIONS, CH. 1)

Handling codes for Treatment, Storage and Disposal Methods:

Treatment:

T01 Tank
T02 Surface Impoundment
T03 Incinerator
T04 Other

Storage:

S01 Container
S02 Tank
S03 Waste Pile
S04 Surface Impoundment
S05 Other

Disposal:

D79 Injection Well
D80 Landfill
D81 Land Application
D82 Ocean Disposal
D83 Surface Impoundment
D84 Other

On-site/Off-site Quantities: Waste quantities which were reported as having been treated, stored or disposed of at the site of generation are considered On-site quantities. Waste quantities which were reported as having been treated, stored or disposed of at a location other than the site of generation are considered Off-site quantities.

Total number of regulated generators: 47

Total number of regulated TSD facilities: 8

Total quantity of hazardous waste generated: 92,626

Regulated Hazardous Waste Generators

Facility	EPA ID#	Location
Amseclo	NVT 330 010 265	Sparks
Bally Eng.	NVD 980 883 714	Sparks
Bendix Corp.	NVD 047 886 791	Reno
Bentley Nev	NVD 009 169 970	Minden
	NVT 330 010 190	
Chemline Ind.	NVD 980 885 685	Carson City
Crumrine Mft.	NVD 999 000 486	Reno
Dynasty Mft.	NVD 980 992 756	Sparks
E.G.& G	NVD 097 868 731	Las Vegas
Fallon NAS	NVD 170 090 043	Fallon
G.T.E.	NVT 000 612 176	Henderson
Hamilton	NVD 008 477 820	Reno
Harding Lawson	NVD 067 799 098	Reno
Hawthorne AAP	NV1 210 090 006	Hawthorne
Houston-Manhattan	NVT 330 010 216	Manhattan
Int Game Tech	NVD 065 020 216	Reno
Kerr McGee	NVD 008 290 330	Henderson
Lift Eng.	NVD 056 804 487	Carson City
Mallory Elec.	NVD 071 541 171	Carson City
Miracle Auto	NVD 087 004 578	Sparks
S.C. Edison Mohave	NVD 000 630 970	Laughlin
Montrose	NVD 008 237 489	Henderson
NCR Corp.	NVD 980 889 190	Reno
Nellis AFB	NV7 570 024 110	Las Vegas

Regulated Hazardous Waste Generators

Continued

Nellis Range	NV5 570 024 112	Las Vegas
NV Air Guard	NV2 570 025 898	Reno
NV Dept. Transp.	NVD 980 893 788	Reno
	NVD 980 983 846	Elko
	NVD 980 893 903	Las Vegas
	NVD 980 893 721	Carson City
O.M. Candelaria	NVD 000 626 473	Hawthorne
Pacific Western	NVD 021 535 125	Elko
Richdel	NVD 053 407 094	Carson City
Safety Kleen	NVT 330 010 208	Las Vegas
Sierra Mft.	NVD 085 286 037	Carson City
So. Pacific Pipeline	NVD 058 947 086	Sparks
Stauffer Chem.	NVD 062 081 500	Henderson
Sweetheart Plas.	NVD 980 895 551	Sparks
Test Site (DOE)	NV3 890 090 001	Las Vegas
Test Range (DOE)	NV3 570 090 016	Tonopah
Tru-Fit Pdts.	NVT 330 011 214	Carson City
UNLV	NVT 330 010 182	Las Vegas
U.S. Ecology	NVT 330 010 000	Beatty
U.S. Postal	NV7 180 090 014	Las Vegas
Western Metal	NVD 041 320 391	Sparks
Xebec Corp.	NVD 980 895 593	Carson City
	NVD 999 000 477	Gardnerville

I. HAZARDOUS WASTE GENERATION

Hazardous Waste generated by EPA Hazardous Waste Number.

<u>Waste #</u>	<u>Quantity</u>	<u>Waste #</u>	<u>Quantity</u>
<u>D001</u>	<u>341.0</u>	<u>K052</u>	<u>21.0</u>
<u>D002</u>	<u>91,034.0</u>	<u>K062</u>	<u>20.0</u>
<u>D003</u>	<u>93.0</u>	<u>P102</u>	<u>5.0</u>
<u>D007</u>	<u>813.0</u>	<u>U002</u>	<u>3.0</u>
<u>D008</u>	<u>30.0</u>	<u>U003</u>	<u>3.0</u>
<u>DOMX</u>	<u>17.0</u>	<u>U044</u>	<u>0.2</u>
<u>F001</u>	<u>33.0</u>	<u>U057</u>	<u>3.0</u>
<u>F002</u>	<u>9.0</u>	<u>U061</u>	<u>3.0</u>
<u>F003</u>	<u>3.0</u>	<u>U075</u>	<u>.04</u>
<u>F005</u>	<u>0.4</u>	<u>U080</u>	<u>5.0</u>
<u>F006</u>	<u>9.0</u>	<u>U121</u>	<u>4.0</u>
<u>FOMX</u>	<u>21.4</u>	<u>U151</u>	<u>.01</u>
<u>K002</u>	<u>4.0</u>	<u>U154</u>	<u>1.0</u>
<u>K050</u>	<u>3.0</u>	<u>U159</u>	<u>3.0</u>

HAZARDOUS WASTE GENERATION

Continued

<u>U165</u>	<u>1.0</u>
<u>U210</u>	<u>8.0</u>
<u>U226</u>	<u>9.0</u>
<u>U227</u>	<u>2.0</u>
<u>UOMX</u>	<u>8.0</u>
<u>MOMX</u>	<u>119.0</u>

II. DISPOSITION OF GENERATED HAZARDOUS WASTES

A. In-state storage, treatment or disposal. Hazardous wastes generated in-state and treated or disposed of at in-state facilities or that were in storage in-state at the close of the reporting year. (See list on page 2 for key to code numbers)

Storage:	Treatment:	Disposal:
S01 <u>183</u> Tons	T01 _____ Tons	D79 _____ Tons
S02 _____ Tons	T02 <u>91,000</u> Tons	D80 <u>4183</u> Tons
S03 _____ Tons	T03 _____ Tons	D81 _____ Tons
S04 _____ Tons	T04 <u>107</u> Tons	D82 _____ Tons
S05 _____ Tons		D83 _____ Tons
		D84 _____ Tons
<hr/>		
Total <u>183</u> Tons	<u>91,107</u> Tons	<u>4183</u> Tons

B. Hazardous waste shipped to out-of-state facilities by individual state.

STATE	Quantity
<u>AZ</u>	<u>5.</u>
<u>CA</u>	<u>425.</u>
<u>LA</u>	<u>23.</u>
<u>OR</u>	<u>8.</u>
<u>UT</u>	<u>215.</u>

REGULATED TREATMENT, STORAGE AND DISPOSAL FACILITIES

FACILITY/ID NUMBER	HANDLING METHODS				CODE#
	S01	T02	T04	D80	
Fallon NAS B17 NV0170090013			X		01
Hawthorne PLT NV121009006	X		X		01
Hawthorne NB NV5210090010			X		01
Montrose NVD008237489		X			01
Nellis AF Range NV5570024112			X		01
Nellis AFB NV7570024110			X		01
Stauffer NVD062081500		X			01
US Ecology NVT330010000				X	02

Codes:

01: On-site facility (all wastes reported as treated, stored, or disposed of was generated on-site). 02: Off-site facility (no wastes reported as treated, stored, or disposed of were generated on-site). 03: On-site/Off-site facility (wastes reported as treated, stored or disposed of were generated either on-site or off-site).

III. Hazardous Waste from all sources that was reported as being treated, stored or disposed of in Nevada, by handling method.

<u>HANDLING METHOD</u>	<u>TOTAL QUANTITY REPORTED</u>	
Storage:		
S01 Container (barrel, drum, etc.).....	183.	TONS
S02 Tank	0.	
S03 Waste Pile	0.	
S04 Surface Impoundment	0.	
S05 Other	0.	
Treatment:		
T01 Tank	0.	
T02 Surface Impoundment	91,000.	
T03 Incinerator	0.	
T04 Other (Use for thermal, biological, chemical, or physical treatment not occurring in tanks, surface impoundments, or incinerators) ...	107.0	
Disposal:		
D79 Injection Well	0.	
D80 Landfill	4183.	
D81 Land Application	0.	
D82 Ocean Disposal	0.	
D83 Surface Impoundment	0.	
D84 Other	0.	

WASTE TREATMENT, STORAGE, AND DISPOSAL

FACILITY DETAIL BY HANDLING METHOD

Handling Method:

Storage

Handling CODE:

S01

<u>Hazardous Waste Number</u>	<u>On-site Quantities</u>	<u>Off-site Quantities</u>
D001	118.0	
D002	3.0	
D008	15.0	
DOMX	24.0	
F003	0.27	
U032	0.1	
U045	0.05	
U052	11.0	
U151	0.004	
U159	2.0	
U210	5.0	
U165	1.0	
U226	0.05	
U227	2.0	
U242	0.05	
MOMX	1.5	

WASTE TREATMENT, STORAGE, AND DISPOSAL

FACILITY DETAIL BY HANDLING METHOD

Handling Method:

Treatment-Surface Impoundments

Handling CODE:

T02

Hazardous Waste
Number

On-site
Quantities

Off-site
Quantities

D002

91,000

WASTE TREATMENT, STORAGE, AND DISPOSAL

FACILITY DETAIL BY HANDLING METHOD

Handling Method:

Treatment-Thermal

Handling CODE:

T04

Hazardous Waste
Number

On-site
Quantities

Off-site
Quantities

D002

74

D003

33

WASTE TREATMENT, STORAGE, AND DISPOSAL

FACILITY DETAIL BY HANDLING METHOD

Handling Method:

Disposal-Landfill

Handling CODE:

D80

<u>Hazardous Waste Number</u>	<u>On-site Quantities</u>	<u>Off-site Quantities</u>
DOMX		1614.0
D001		58.0
D002		15.0
D004		189.0
D007		776.0
D008		183.0
D009		60.0
D016		3.0
FOMX		10.0
F001		23.0
F002		0.2
F003		25.0
F006		286.0
POMX		307.0
P001		0.1
P014		8.0
P044		10.0
P054		3.0
P066		0.5
P089		6.0
K035		22.0
UOMX		192.0

APPENDIX E-1

Mixtures codes (40 Code of Federal Regula-
tions, Ch. 1).

EXHIBIT E

Attachment 1

§ 261.33 Discarded commercial chemical products, off-specification species, container residues and spill residues thereof.

The following materials or items are hazardous wastes if and when they are discarded or intended to be discarded unless they are excluded under §§ 260.20 and 260.22 and listed in Appendix IX.

(f) . . .

Hazardous waste No.	Substance
U242	Pentachlorophenol.
U242	Phenol, pentachloro-
U212	Phenol, 2,3,4,6-tetrachloro-
U212	Phenol, 2,4,5-trichloro-
U230	Phenol, 2,4,6-trichloro-
U231	Propionic acid, 2-(2,4,5-trichlorophenoxy)-
U233	Silver.
U232	2,4,5-T.
U212	2,3,4,6-Tetrachlorophenol.
U230	2,4,5-Trichlorophenol.
U231	2,4,6-Trichlorophenol.
U230	2,4,5-Trichlorophenoxyacetic acid.

TABLE I—MAXIMUM CONCENTRATION OF CONTAMINANTS FOR CHARACTERISTIC OF EP TOXICITY

EPA hazardous waste number	Contaminant	Maximum concentration (milligrams per liter)
D004	Arsenic	5.0
D005	Barium	100.0
D006	Cadmium	1.0
D007	Chromium	5.0
D008	Lead	5.0
D009	Mercury	0.2
D010	Selenium	1.0
D011	Silver	5.0
D012	Endrin (1,2,3,4,10,10-hexachloro-1,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-1,4-endo, endo-5,8-dimethano-naphthalene).	0.02
D013	Lindene (1,2,3,4,5,6-hexachlorocyclohexane, gamma isomer).	0.4
D014	Methoxychlor (1,1,1-Trichloro-2,2-bis [p-methoxyphenyl]ethane).	10.0
D015	Toxaphene (C ₁₂ H ₁₀ Cl ₆ , Technical chlorinated camphene, 67-88 percent chlorine).	0.5
D016	2,4-D, (2,4-Dichlorophenoxyacetic acid).	10.0
D017	2,4,5-TP Silvex (2,4,5-Trichlorophenoxypropionic acid).	1.0

§ 261.31 Hazardous wastes from non-specific sources.

The following solid wastes are listed hazardous wastes from non-specific sources unless they are excluded under §§ 260.20 and 260.22 and listed in Appendix IX.

Industry and EPA hazardous waste No.	Hazardous waste	Hazard code
Generic:		
F001.....	The following spent halogenated solvents used in degreasing: tetrachloroethylene, trichloroethylene, methylene chloride, 1,1,1-trichloroethane, carbon tetrachloride, and chlorinated fluorocarbons; and sludges from the recovery of these solvents in degreasing operations.	(T)
F002.....	The following spent halogenated solvents: tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1-trichloroethane, chlorobenzene, 1,1,2-trichloro-1,2,2-trifluoroethane, ortho-dichlorobenzene, and trichlorofluoromethane; and the still bottoms from the recovery of these solvents.	(T)
F003.....	The following spent non-halogenated solvents: xylene, acetone, ethyl acetate, ethyl benzene, ethyl ether, methyl isobutyl ketone, n-butyl alcohol, cyclohexanone, and methanol; and the still bottoms from the recovery of these solvents.	(I)
F004.....	The following spent non-halogenated solvents: cresols and cresylic acid, and nitrobenzene; and the still bottoms from the recovery of these solvents.	(T)
F005.....	The following spent non-halogenated solvents: toluene, methyl ethyl ketone, carbon disulfide, isobutanol, and pyridine; and the still bottoms from the recovery of these solvents.	(I, T)
F006.....	Wastewater treatment sludges from electroplating operations except from the following processes: (1) sulfuric acid anodizing of aluminum; (2) tin plating on carbon steel; (3) zinc plating (segregated basic) on carbon steel; (4) aluminum or zinc-aluminum plating on carbon steel; (5) cleaning/stripping associated with tin, zinc and aluminum plating on carbon steel; and (6) chemical etching and milling of aluminum.	(T)
F019.....	Wastewater treatment sludges from the chemical conversion coating of aluminum.....	(T)
F007.....	Spent cyanide plating bath solutions from electroplating operations.....	(R, T)
F008.....	Plating bath residues from the bottom of plating baths from electroplating operations where cyanides are used in the process.	(R, T)
F009.....	Spent stripping and cleaning bath solutions from electroplating operations where cyanides are used in the process.	(R, T)
F010.....	Quenching bath residues from oil baths from metal heat treating operations where cyanides are used in the process.	(R, T)
F011.....	Spent cyanide solutions from salt bath pot cleaning from metal heat treating operations.	(R, T)
F012.....	Quenching waste water treatment sludges from metal heat treating operations where cyanides are used in the process.	(T)
F024.....	Wastes, including but not limited to, distillation residues, heavy ends, tars, and reactor clean-out wastes from the production of chlorinated aliphatic hydrocarbons, having carbon content from one to five, utilizing free radical catalyzed processes. [This listing does not include light ends, spent filters and filter aids, spent desiccants, wastewater, wastewater treatment sludges, spent catalysts, and wastes listed in § 261.32.]	(T)
F020.....	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tri- or tetrachlorophenol, or of intermediates used to produce their pesticide derivatives. (This listing does not include wastes from the production of Hexachlorophene from highly purified 2,4,5-trichlorophenol.)	(H)
F021.....	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of pentachlorophenol, or of intermediates used to produce its derivatives.	(H)

Industry and EPA hazardous waste No	Hazardous waste	Hazard code
FO22.....	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tetra-, penta-, or hexachlorobenzenes under alkaline conditions.	(H)
FO23.....	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production of materials on equipment previously used for the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tri- and tetrachlorophenols. (This listing does not include wastes from equipment used only for the production or use of Hexachlorophene from highly purified 2,4,5-trichlorophenol.)	(H)
FO26.....	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production of materials on equipment previously used for the manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tetra-, penta-, or hexachlorobenzene under alkaline conditions.	(H)
FO27.....	Discarded unused formulations containing tri-, tetra-, or pentachlorophenol or discarded unused formulations containing compounds derived from these chlorophenols. (This listing does not include formulations containing Hexachlorophene synthesized from prepurified 2,4,5-trichlorophenol as the sole component.)	(H)
FO28.....	Residues resulting from the incineration or thermal treatment of soil contaminated with EPA Hazardous Waste Nos. FO20, FO21, FO22, FO23, FO26, and FO27.	(T)

[46 FR 4617, Jan. 16, 1981, as amended at 46 FR 27477, May 20, 1981; 49 FR 5312, Feb. 10, 1984; 49 FR 37070, Sept. 21, 1984; 50 FR 665, Jan. 4, 1985; 50 FR 2000, Jan. 14, 1985]

EFFECTIVE DATE NOTE: At 50 FR 665, Jan. 4, 1985, the hazardous waste listings for F007, F008, F009, F010, F011, and F012 were revised, effective July 5, 1985. At 50 FR 2000, Jan. 14, 1985, the hazardous waste listings for F020, F021, F022, F023, F026, F027, and F028 were added, effective July 15, 1985. For the convenience of the user, the superseded text is set out below:

§ 261.31 Hazardous wastes from non-specific sources.

Industry and EPA hazardous waste No.	Hazardous waste	Hazard code
F007.....	Spent cyanide plating bath solutions from electroplating operations (except for precious metals electroplating spent cyanide plating bath solutions).	(R, T)
F008.....	Plating bath sludges from the bottom of plating baths from electroplating operations where cyanides are used in the process (except for precious metals electroplating plating bath sludges).	(R, T)
F009.....	Spent stripping and cleaning bath solutions from electroplating operations where cyanides are used in the process (except for precious metals electroplating spent stripping and cleaning bath solutions).	(R, T)
F010.....	Quenching bath sludge from oil baths from metal heat treating operations where cyanides are used in the process (except for precious metals heat-treating quenching bath sludges).	(R, T)
F011.....	Spent cyanide solutions from salt bath pot cleaning from metal heat treating operations (except for precious metals heat treating spent cyanide solutions from salt bath pot cleaning).	(R, T)
F012.....	Quenching wastewater treatment sludges from metal heat treating operations where cyanides are used in the process (except for precious metals heat treating quenching wastewater treatment sludges).	(T)

§ 261.32 Hazardous wastes from specific sources.

The following solid wastes are listed hazardous wastes from specific sources unless they are excluded under §§ 260.20 and 260.22 and listed in Appendix IX.

Industry and EPA hazardous waste No.	Hazardous waste	Hazard code
Wood preserver: K001.....	Bottom sediment sludge from the treatment of wastewaters from wood preserving processes that use creosote and/or pentachlorophenol.	(T)

Industry and EPA hazardous waste No.	Hazardous waste	Hazard code
Inorganic pigments:		
K002	Wastewater treatment sludge from the production of chrome yellow and orange pigments.	(E)
K003	Wastewater treatment sludge from the production of molybdate orange pigments	(E)
K004	Wastewater treatment sludge from the production of zinc yellow pigments	(E)
K005	Wastewater treatment sludge from the production of chrome green pigments	(E)
K006	Wastewater treatment sludge from the production of chrome oxide green pigments (anhydrous and hydrated).	(E)
K007	Wastewater treatment sludge from the production of iron blue pigments	(E)
K008	Oven residue from the production of chrome oxide green pigments	(E)
Organic chemicals:		
K009	Distillation bottoms from the production of acetaldehyde from ethylene	(E)
K010	Distillation side cuts from the production of acetaldehyde from ethylene	(E)
K011	Bottom stream from the wastewater stripper in the production of acrylonitrile	(E, R, T)
K013	Bottom stream from the acetonitrile column in the production of acrylonitrile	(E, R, T)
K014	Bottoms from the acetonitrile purification column in the production of acrylonitrile	(E)
K015	Still bottoms from the distillation of benzyl chloride	(E)
K016	Heavy ends or distillation residues from the production of carbon tetrachloride	(E)
K017	Heavy ends (still bottoms) from the purification column in the production of epichlorohydrin.	(E)
K018	Heavy ends from the fractionation column in ethyl chloride production	(E)
K019	Heavy ends from the distillation of ethylene dichloride in ethylene dichloride production.	(E)
K020	Heavy ends from the distillation of vinyl chloride in vinyl chloride monomer production.	(E)
K021	Aqueous spent antimony catalyst waste from fluoromethanes production	(E)
K022	Distillation bottom tars from the production of phenol/acetone from cumene	(E)
K023	Distillation light ends from the production of phthalic anhydride from naphthalene	(E)
K024	Distillation bottoms from the production of phthalic anhydride from naphthalene	(E)
K093	Distillation light ends from the production of phthalic anhydride from ortho-xylene	(E)
K094	Distillation bottoms from the production of phthalic anhydride from ortho-xylene	(E)
K025	Distillation bottoms from the production of nitrobenzene by the nitration of benzene	(E)
K026	Stripping still tails from the production of methyl ethyl pyridines	(E)
K027	Centrifuge and distillation residues from toluene diisocyanate production	(E)
K028	Spent catalyst from the hydrochlorinator reactor in the production of 1,1,1-trichloroethane.	(E)
K029	Waste from the product steam stripper in the production of 1,1,1-trichloroethane	(E)
K095	Distillation bottoms from the production of 1,1,1-trichloroethane	(E)
K096	Heavy ends from the heavy ends column from the production of 1,1,1-trichloroethane.	(E)
K030	Column bottoms or heavy ends from the combined production of trichloroethylene and perchloroethylene.	(E)
K083	Distillation bottoms from aniline production	(E)
K103	Process residues from aniline extraction from the production of aniline	(E)
K104	Combined wastewater streams generated from nitrobenzene/aniline production	(E)
K085	Distillation or fractionation column bottoms from the production of chlorobenzenes	(E)
K105	Separated aqueous stream from the reactor product washing step in the production of chlorobenzenes.	(E)
Inorganic chemicals:		
K071	Brine purification muds from the mercury cell process in chlorine production, where separately prepurified brine is not used.	(E)
K073	Chlorinated hydrocarbon waste from the purification step of the diaphragm cell process using graphite anodes in chlorine production.	(E)
K106	Wastewater treatment sludge from the mercury cell process in chlorine production	(E)
Pesticides:		
K031	By-product salts generated in the production of MSMA and cacodylic acid	(E)
K032	Wastewater treatment sludge from the production of chlordane	(E)
K033	Wastewater and scrub water from the chlorination of cyclopentadiene in the production of chlordane.	(E)
K034	Filter solids from the filtration of hexachlorocyclopentadiene in the production of chlordane.	(E)
K097	Vacuum stripper discharge from the chlordane chlorinator in the production of chlordane.	(E)
K035	Wastewater treatment sludges generated in the production of creosote	(E)
K036	Still bottoms from toluene reclamation distillation in the production of disulfoton	(E)
K037	Wastewater treatment sludges from the production of disulfoton	(E)
K038	Wastewater from the washing and stripping of phorate production	(E)
K039	Filter cake from the filtration of diethylphosphorodithioic acid in the production of phorate.	(E)
K040	Wastewater treatment sludge from the production of phorate	(E)
K041	Wastewater treatment sludge from the production of toxaphene	(E)
K098	Untreated process wastewater from the production of toxaphene	(E)

Industry and EPA hazardous waste No.	Hazardous waste	Hazard code
K042	Heavy ends or distillation residues from the distillation of tetrachlorobenzene in the production of 2,4,5-T.	(T)
K043	2,6-Dichlorophenol waste from the production of 2,4-D	(T)
K099	Untreated wastewater from the production of 2,4-D	(T)
Explosives:		
K044	Wastewater treatment sludges from the manufacturing and processing of explosives...	(R)
K045	Spent carbon from the treatment of wastewater containing explosives.....	(R)
K046	Wastewater treatment sludges from the manufacturing, formulation and loading of lead-based initiating compounds.	(T)
K047	Pink/red water from TNT operations	(R)
Petroleum refining:		
K048	Dissolved air flotation (DAF) float from the petroleum refining industry	(T)
K049	Slip oil emulsion solids from the petroleum refining industry	(T)
K050	Heat exchanger bundle cleaning sludge from the petroleum refining industry	(T)
K051	API separator sludge from the petroleum refining industry	(T)
K052	Tank bottoms (leaded) from the petroleum refining industry	(T)
Iron and steel:		
K061	Emission control dust/sludge from the primary production of steel in electric furnaces.	(T)
K062	Spent pickle liquor from steel finishing operations	(C, T)
Secondary lead:		
K069	Emission control dust/sludge from secondary lead smelting.....	(T)
K100	Waste leaching solution from acid leaching of emission control dust/sludge from secondary lead smelting.	(T)
Veterinary pharmaceuticals:		
K064	Wastewater treatment sludges generated during the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.	(T)
K101	Distillation tar residues from the distillation of aniline-based compounds in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.	(T)
K102	Residue from the use of activated carbon for decolorization in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.	(T)
Ink formulation: K086		
K086	Solvent washes and sludges, caustic washes and sludges, or water washes and sludges from cleaning tubes and equipment used in the formulation of ink from pigments, driers, soaps, and stabilizers containing chromium and lead.	(T)
Coking:		
K060	Ammonia still lime sludge from coking operations.....	(T)
K067	Decanter tank tar sludge from coking operations.....	(T)

[46 FR 4618, Jan. 16, 1981, as amended at 46 FR 27476-27477, May 20, 1981; 49 FR 37070, Sept. 21, 1984]

Hazardous waste No.	Substance
P023.....	Acetaldehyde, chloro-
P002.....	Acetamide, N-(aminothioxomethyl)-
P057.....	Acetamide, 2-fluoro-
P058.....	Acetic acid, fluoro-, sodium salt
P066.....	Acetimidic acid, N-[(methylcarbamoyloxy)thio-, methyl ester
P001.....	3-(alpha-Acetoxybenzyl)-4-hydroxycoumarin and salts, when present at concentrations greater than 0.3%
P002.....	1-Acetyl-2-thiourea
P003.....	Acrolein
P070.....	Aldicarb
P004.....	Aldrin
P005.....	Allyl alcohol
P006.....	Aluminum phosphide
P007.....	5-(Aminomethyl)-3-isoxazolol
P008.....	4-aAminopyridine
P009.....	Ammonium picrate (R)
P119.....	Ammonium vanadate
P010.....	Arsenic acid
P012.....	Arsenic (III) oxide
P011.....	Arsenic (V) oxide
P011.....	Arsenic pentoxide
P012.....	Arsenic trioxide
P038.....	Arsine, diethyl-
P054.....	Aziridine
P013.....	Barium cyanide
P024.....	Benzenamine, 4-chloro-
P077.....	Benzenamine, 4-nitro-
P028.....	Benzene, (chloromethyl)-
P042.....	1,2-Benzenediol, 4-[1-hydroxy-2-(methylamino)ethyl]-
P014.....	Benzenethiol
P028.....	Benzyl chloride
P015.....	Beryllium dust
P016.....	Bis(chloromethyl) ether
P017.....	Bromoacetone
P018.....	Brucine
P021.....	Calcium cyanide
P123.....	Camphene, octachloro-
P103.....	Carbamimidoseelenic acid
P022.....	Carbon bisulfide
P022.....	Carbon disulfide
P065.....	Carbonyl chloride
P033.....	Chlorine cyanide
P023.....	Chloroacetaldehyde
P024.....	p-Chloroaniline
P026.....	1-(o-Chlorophenyl)thiourea
P027.....	3-Chloropropionitrile
P029.....	Copper cyanides

Hazardous waste No.	Substance
P030.....	Cyanides (soluble cyanide salts), not elsewhere specified
P031.....	Cyanogen
P033.....	Cyanogen chloride
P036.....	Dichlorophenylarsine
P037.....	Dieldrin
P038.....	Diethylarsine
P039.....	O,O-Diethyl S-[2-(ethylthio)ethyl] phosphorodithioate
P041.....	Diethyl-p-nitrophenyl phosphate
P040.....	O,O-Diethyl O-pyrazinyl phosphorothioate
P043.....	Diisopropyl fluorophosphate
P044.....	Dimethoate
P045.....	3,3-Dimethyl-1-(methylthio)-2-butanone, O-[(methylamino)carbonyl] oxime
P071.....	O,O-Dimethyl O-p-nitrophenyl phosphorothioate
P062.....	Dimethylnitrosamine
P046.....	alpha, alpha-Dimethylphenethylamine
P047.....	4,6-Dinitro-o-cresol and salts
P034.....	4,6-Dinitro-o-cyclohexylphenol
P048.....	2,4-Dinitrophenol
P020.....	Dinoseb
P085.....	Diphosphoramide, octamethyl-
P039.....	Disulfoton
P049.....	2,4-Dithioburet
P109.....	Dithiopyrophosphoric acid, tetraethyl ester
P050.....	Endosulfan
P068.....	Endothal
P051.....	Endrin
P042.....	Epinephrine
P046.....	Ethanamine, 1,1-dimethyl-2-phenyl-
P064.....	Ethanamine, N-methyl-N-nitroso-
P101.....	Ethyl cyanide
P054.....	Ethylaniline
P097.....	Famphur
P056.....	Fluorine
P057.....	Fluoroacetamide
P058.....	Fluoroacetic acid, sodium salt
P065.....	Fulminic acid, mercury(II) salt (R,T)
P059.....	Heptachlor
P051.....	1,2,3,4,10,10-Hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-endo,endo-1,4:5,8-dimethanonaphthalene
P037.....	1,2,3,4,10,10-Hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-endo,exo-1,4:5,8-dimethanonaphthalene
P060.....	1,2,3,4,10,10-Hexachloro-1,4,4a,5,8,8a-hexahydro-1,4:5,8-endo,endo-dimethanonaphthalene
P004.....	1,2,3,4,10,10-Hexachloro-1,4,4a,5,8,8a-hexahydro-1,4:5,8-endo,exo-dimethanonaphthalene
P060.....	Hexachlorohexahydro-exo,exo-dimethanonaphthalene
P062.....	Hexaethyl tetraphosphate
P116.....	Hydrazinecarbothioamide
P068.....	Hydrazine, methyl-
P063.....	Hydrocyanic acid
P063.....	Hydrogen cyanide
P096.....	Hydrogen phosphide
P064.....	Isocyanic acid, methyl ester
P007.....	3(2H)-isoxazalone, 5-(aminomethyl)-
P092.....	Mercury, (acetato-O)phenyl-
P065.....	Mercury fulminate (R,T)
P016.....	Methane, oxybis(chloro-
P112.....	Methane, tetranitro- (R)
P118.....	Methanethiol, trichloro-
P059.....	4,7-Methano-1H-indene, 1,4,5,6,7,8,8-heptachloro-3a,4,7,7a-tetrahydro-
P066.....	Methomyl
P067.....	2-Methylaziridine

Hazardous waste No	Substance
P068.....	Methyl hydrazine
P064.....	Methyl isocyanate
P069.....	2-Methylactonitrile
P071.....	Methyl parathion
P072.....	alpha-Naphthylthiourea
P073.....	Nickel carbonyl
P074.....	Nickel cyanide
P074.....	Nickel(II) cyanide
P073.....	Nickel tetracarbonyl
P075.....	Nicotine and salts
P076.....	Nitric oxide
P077.....	p-Nitroaniline
P078.....	Nitrogen dioxide
P076.....	Nitrogen(II) oxide
P078.....	Nitrogen(IV) oxide
P081.....	Nitroglycerine (R)
P082.....	N-Nitrosodimethylamine
P084.....	N-Nitrosomethylvinylamine
P050.....	5-Norbornene-2,3-dimethanol, 1,4,5,6,7,7-hexachloro, cyclic sulfite
P085.....	Octamethylpyrophosphoramide
P067.....	Osmium oxide
P067.....	Osmium tetroxide
P068.....	7-Oxabicyclo[2.2.1]heptane-2,3-dicarboxylic acid
P069.....	Parathion
P034.....	Phenol, 2-cyclohexyl-4,6-dinitro-
P046.....	Phenol, 2,4-dinitro-
P047.....	Phenol, 2,4-dinitro-6-methyl-
P020.....	Phenol, 2,4-dinitro-6-(1-methylpropyl)-
P009.....	Phenol, 2,4,6-trinitro-, ammonium salt (R)
P036.....	Phenyl dichloroarsine
P092.....	Phenylmercuric acetate
P093.....	N-Phenylthiourea
P094.....	Phorite
P095.....	Phocgens
P096.....	Phosphine
P041.....	Phosphoric acid, diethyl p-nitrophenyl ester
P044.....	Phosphorodithioic acid, O,O-dimethyl S-[2-(methylamino)-2-oxoethyl]ester
P043.....	Phosphorofluoric acid, bis(1-methylethyl)-ester
P094.....	Phosphorothioic acid, O,O-diethyl S-(ethylthio)methyl ester
P089.....	Phosphorothioic acid, O,O-diethyl O-(p-nitrophenyl) ester
P040.....	Phosphorothioic acid, O,O-diethyl O-pyrazinyl ester
P097.....	Phosphorothioic acid, O,O-dimethyl O-[(di-methylamino)-sulfonyl]phenyl]ester
P110.....	Plumbene, tetraethyl-
P098.....	Potassium cyanide
P099.....	Potassium silver cyanide
P070.....	Propanal, 2-methyl-2-(methylthio)-, O-[(methylamino)carbonyl]oxime
P101.....	Propanenitrile
P027.....	Propanenitrile, 3-chloro-
P069.....	Propanenitrile, 2-hydroxy-2-methyl-
P061.....	1,2,3-Propanetriol, trinitrate- (R)
P017.....	2-Propanone, 1-bromo-
P102.....	Propargyl alcohol
P003.....	2-Propanol
P005.....	2-Propan-1-ol
P067.....	1,2-Propylenamine
P102.....	2-Propyn-1-ol
P006.....	4-Pyridinamine
P075.....	Pyridine, (S)-3-(1-methyl-2-pyrrolidinyl)-, and salts
P111.....	Pyrophosphoric acid, tetraethyl ester
P103.....	Selenourea
P104.....	Silver cyanide
P105.....	Sodium azide

Hazardous waste No.	Substance
P106.....	Sodium cyanide
P107.....	Strontium sulfide
P108.....	Strychnidin-10-one, and salts
P018.....	Strychnidin-10-one, 2,3-dimethoxy-
P108.....	Strychnine and salts
P115.....	Sulfuric acid, thallium(I) salt
P109.....	Tetraethylthiopyrophosphate
P110.....	Tetraethyl lead
P111.....	Tetraethylpyrophosphate
P112.....	Tetranitromethane (R)
P062.....	Tetraphosphoric acid, hexaethyl ester
P113.....	Thallic oxide
P113.....	Thallium(III) oxide
P114.....	Thallium(I) sesquioxide
P115.....	Thallium(I) sulfate
P045.....	Thiofanox
P049.....	Thioimidocarbonic diamide
P014.....	Thiophenol
P116.....	Thiosemicarbazide
P026.....	Thiourea, (2-chlorophenyl)-
P072.....	Thiourea, 1-naphthalenyl-
P093.....	Thiourea, phenyl-
P123.....	Toxaphene
P118.....	Trichloromethanethiol
P119.....	Vanadic acid, ammonium salt
P120.....	Vanadium pentoxide
P120.....	Vanadium(V) oxide
P001.....	Warfarin, when present at concentrations greater than 0.3%
P121.....	Zinc cyanide
P122.....	Zinc phosphide (R,T)
P122.....	Zinc phosphide, when present at concentrations greater than 10%

(f) The commercial chemical products, manufacturing chemical intermediates, or off-specification commercial chemical products referred to in paragraphs (a) through (d) of this section, are identified as toxic wastes (T) unless otherwise designated and are subject to the small quantity exclusion defined in § 261.5 (a) and (f).

[Comment: For the convenience of the regulated community, the primary hazardous properties of these materials have been indicated by the letters T (Toxicity), R (Reactivity), I (Ignitability) and C (Corrosivity). Absence of a letter indicates that the compound is only listed for toxicity.]

These wastes and their corresponding EPA Hazardous Waste Numbers are:

Hazardous Waste No.	Substance
U001.....	Acetaldehyde (I)
U034.....	Acetaldehyde, trichloro-
U187.....	Acetamide, N-(4-ethoxyphenyl)-
U005.....	Acetamide, N-9H-fluoren-2-yl-
U112.....	Acetic acid, ethyl ester (I)
U144.....	Acetic acid, lead salt
U214.....	Acetic acid, thallium(I) salt

Hazardous Waste No.	Substance
U002.....	Acetone (I)
U003.....	Acetonitrile (I,T)
U248.....	3-(alpha-Acetylbenzyl)-4-hydroxycoumarin and salts, when present at concentrations of 0.3% or less
U004.....	Acetophenone
U005.....	2-Acetylaminofluorene
U006.....	Acetyl chloride (C,R,T)
U007.....	Acrylamide
U008.....	Acrylic acid (I)
U009.....	Acrylonitrile
U150.....	Alanine, 3-[p-bis(2-chloroethyl)amino] phenyl-, L-
U011.....	Amitrole
U012.....	Aniline (I,T)
U014.....	Auramine
U015.....	Azaserine
U010.....	Azirino(2',3':3,4)pyrrolo(1,2-a)indole-4,7-dione, 6-amino-6-(((aminocarbonyl oxy)methyl)-1,1a,2,8,8a,8b-hexahydro-8a-methoxy-5-methyl-,
U157.....	Benz[<i>j</i>]aceanthrylene, 1,2-dihydro-3-methyl-
U016.....	Benz[<i>c</i>]acridine
U016.....	3,4-Benzacridine
U017.....	Benzal chloride
U018.....	Benz[<i>a</i>]anthracene
U018.....	1,2-Benzanthracene
U094.....	1,2-Benzanthracene, 7,12-dimethyl-
U012.....	Benzenamine (I,T)
U014.....	Benzenamine, 4,4'-carbonimidoylbis(N,N-dimethyl-
U049.....	Benzenamine, 4-chloro-2-methyl-
U093.....	Benzenamine, N,N'-dimethyl-4-phenylazo-
U156.....	Benzenamine, 4,4'-methylencbis(2-chloro-
U222.....	Benzenamine, 2-methyl-, hydrochloride
U181.....	Benzenamine, 2-methyl-5-nitro
U019.....	Benzene (I,T)
U038.....	Benzenecetic acid, 4-chloro-alpha-(4-chloro-phenyl)-alpha-hydroxy, ethyl ester
U030.....	Benzene, 1-bromo-4-phenoxy-
U037.....	Benzene, chloro-
U190.....	1,2-Benzenedicarboxylic acid anhydride
U028.....	1,2-Benzenedicarboxylic acid, [bis(2-ethylhexyl)] ester
U069.....	1,2-Benzenedicarboxylic acid, dibutyl ester
U068.....	1,2-Benzenedicarboxylic acid, diethyl ester
U102.....	1,2-Benzenedicarboxylic acid, dimethyl ester
U107.....	1,2-Benzenedicarboxylic acid, di-n-octyl ester
U070.....	Benzene, 1,2-dichloro-
U071.....	Benzene, 1,3-dichloro-
U072.....	Benzene, 1,4-dichloro-
U017.....	Benzene, (dichloromethyl)-
U223.....	Benzene, 1,3-dicyanatomethyl- (R,T)
U239.....	Benzene, dimethyl-(I,T)
U201.....	1,3-Benzenediol
U127.....	Benzene, hexachloro-
U056.....	Benzene, hexahydro- (I)
U186.....	Benzene, hydroxy-
U220.....	Benzene, methyl-
U105.....	Benzene, 1-methyl-1,2,4-dinitro-
U106.....	Benzene, 1-methyl-2,6-dinitro-
U203.....	Benzene, 1,2-methylenedioxy-4-allyl-
U141.....	Benzene, 1,2-methylenedioxy-4-propenyl-
U090.....	Benzene, 1,2-methylenedioxy-4-propyl-
U055.....	Benzene, (1-methylethyl)- (I)
U169.....	Benzene, nitro- (I,T)
U183.....	Benzene, pentachloro-
U185.....	Benzene, pentachloro-nitro-
U020.....	Benzenesulfonic acid chloride (C,R)
U020.....	Benzenesulfonyl chloride (C,R)
U207.....	Benzene, 1,2,4,5-tetrachloro-
U023.....	Benzene, (trichloromethyl)-(C,R,T)

Hazardous Waste No	Substance
0234	Benzene, 1,3,5-trinitro- (R,T)
U021	Benzidine
U202	1,2-Benzisothiazolin-3-one, 1,1-dioxide
U120	Benzo[<i>j,k</i>]fluorene
U022	Benzo[<i>a</i>]pyrene
U022	3,4-Benzopyrene
U197	p-Benzoquinone
U023	Benzotrichloride (C,R,T)
U050	1,2-Benzphenanthrene
U085	2,2'-Bioxirane (I,T)
U021	(1,1'-Biphenyl)-4,4'-diamine
U073	(1,1'-Biphenyl)-4,4'-diamine, 3,3'-dichloro-
U091	(1,1'-Biphenyl)-4,4'-diamine, 3,3'-dimethoxy-
U095	(1,1'-Biphenyl)-4,4'-diamine, 3,3'-dimethyl-
U024	Bis(2-chloroethoxy) methane
U027	Bis(2-chloroisopropyl) ether
U244	Bis(dimethylthiocarbamoyl) disulfide
U028	Bis(2-ethylhexyl) phthalate
U246	Bromine cyanide
U225	Bromoform
U030	4-Bromophenyl phenyl ether
U128	1,3-Butadiene, 1,1,2,3,4,4-hexachloro-
U172	1-Butanamine, N-butyl-N-nitroso-
U035	Butanoic acid, 4-[Bis(2-chloroethyl)amino] benzene-
U031	1-Butanol (I)
U159	2-Butanone (I,T)
U180	2-Butanone peroxide (R,T)
U053	2-Butenal
U074	2-Butene, 1,4-dichloro- (I,T)
U031	n-Butyl alcohol (I)
U136	Cacodylic acid
U032	Calcium chromate
U238	Carbamic acid, ethyl ester
U178	Carbamic acid, methylnitroso-, ethyl ester
U176	Carbamide, N-ethyl-N-nitroso-
U177	Carbamide, N-methyl-N-nitroso-
U219	Carbamide, thio-
U097	Carbamoyl chloride, dimethyl-
U215	Carbonic acid, diethylamine(I) salt
U156	Carbonochloridic acid, methyl ester (I,T)
U033	Carbon oxyfluoride (R,T)
U211	Carbon tetrachloride
U033	Carbonyl fluoride (R,T)
U034	Chloral
U035	Chlorambucil
U036	Chlordane, technical
U026	Chlornaphazine
U037	Chlorobenzene
U039	4-Chloro-m-cresol
U041	1-Chloro-2,3-epoxypropene
U042	2-Chloroethyl vinyl ether
U044	Chloroform
U046	Chloromethyl methyl ether
U047	beta-Chloronaphthalene
U048	o-Chlorophenol
U049	4-Chloro-o-toluidine, hydrochloride
U032	Chromic acid, calcium salt
U050	Chrysene
U051	Cresols
U052	Cresylic acid
U053	Crotonaldehyde
U055	Cumene (I)
U246	Cyanogen bromide
U197	1,4-Cyclohexanedione
U056	Cyclohexane (I)
U057	Cyclohexanone (I)
U130	1,3-Cyclopentadiene, 1,2,3,4,5,5-hexa- chloro-
U058	Cyclophosphamide
U240	2,4,4-D, salts and esters
U059	Daunomycin

Hazardous Waste No	Substance
U060	DDD
U061	DDT
U142	Decachlorooctahydro-1,3,4-metheno-2H-cyclobuta[<i>c,d</i>]-pentalen-2-one
U062	Diallate
U133	Diamine (R,T)
U221	Diaminotoluene
U063	Dibenz[<i>a,h</i>]anthracene
U063	1,2:5,6-Dibenzanthracene
U064	1,2:7,8-Dibenzopyrene
U064	Dibenz[<i>a,i</i>]pyrene
U066	1,2-Dibromo-3-chloropropane
U069	Dibutyl phthalate
U062	S-(2,3-Dichloroethyl) diisopropylthiocarbamate
U070	o-Dichlorobenzene
U071	m-Dichlorobenzene
U072	p-Dichlorobenzene
U073	3,3'-Dichlorobenzidine
U074	1,4-Dichloro-2-butene (I,T)
U075	Dichlorodifluoromethane
U192	3,5-Dichloro-N-(1,1-dimethyl-2-propynyl) benzamide
U060	Dichloro diphenyl dichloroethane
U061	Dichloro diphenyl trichloroethane
U078	1,1-Dichloroethylene
U079	1,2-Dichloroethylene
U025	Dichloroethyl ether
U081	2,4-Dichlorophenol
U082	2,6-Dichlorophenol
U240	2,4-Dichlorophenoxyacetic acid, salts and esters
U063	1,2-Dichloropropane
U064	1,3-Dichloropropane
U065	1,2:3,4-Dioxxybutane (I,T)
U108	1,4-Diethylene dioxide
U066	N,N-Diethylhydrazine
U087	O,O-Diethyl-S-methyl-dithiophosphate
U068	Diethyl phthalate
U069	Diethylstilbestrol
U148	1,2-Dihydro-3,6-pyridazinodione
U090	Dihydroaztrioic
U091	3,3'-Dimethoxybenzidine
U092	Dimethylamine (I)
U093	Dimethylaminosobenzene
U094	7,12-Dimethylbenz[<i>a</i>]anthracene
U095	3,3'-Dimethylbenzidine
U096	alpha, alpha-Dimethylbenzylhydroperoxide (R)
U097	Dimethylcarbamoyl chloride
U098	1,1-Dimethylhydrazine
U099	1,2-Dimethylhydrazine
U101	2,4-Dimethylphenol
U102	Dimethyl phthalate
U103	Dimethyl sulfate
U105	2,4-Dinitrotoluene
U106	2,6-Dinitrotoluene
U107	Di-n-octyl phthalate
U108	1,4-Dioxane
U109	1,2- Diphenylhydrazine
U110	Dipropylamine (I)
U111	Di-N-propylnitrosamine
U001	Ethanal (I)
U174	Ethanamine, N-ethyl-N-nitroso-
U067	Ethane, 1,2-dibromo-
U076	Ethane, 1,1-dichloro-
U077	Ethane, 1,2-dichloro-
U114	1,2-Ethanediybiscarbamodithioic acid
U131	Ethane, 1,1,1,2,2,2-hexachloro-
U024	Ethane, 1,1'-[methylenebis(oxy)]bis[2-chloro-
U003	Ethanenitrile (I, T)
U117	Ethane, 1,1'-oxybis- (I)
U025	Ethane, 1,1'-oxybis[2-chloro-
U184	Ethane, pentachloro-

Hazardous Waste No.	Substance
U179	N-Nitrosopiperidine
U180	N-Nitrosopyrrolidine
U181	5-Nitro-o-toluidine
U193	1,2-Oxathiolane, 2,2-dioxide
U058	2H-1,3,2-Oxazaphosphorine, 2-[bis(2-chloro-ethyl)amino]tetrahydro-, oxide 2-
U115	Oxirane (I,T)
U041	Oxirane, 2-(chloromethyl)-
U182	Paraldehyde
U183	Pentachlorobenzene
U184	Pentachloroethane
U185	Pentachloronitrobenzene
See F027	Pentachlorophenol
U186	1,3-Pentadiene (I)
U187	Phenacetin
U188	Phenol
U048	Phenol, 2-chloro-
U039	Phenol, 4-chloro-3-methyl-
U081	Phenol, 2,4-dichloro-
U082	Phenol, 2,6-dichloro-
U101	Phenol, 2,4-dimethyl-
U170	Phenol, 4-nitro-
See F027	Phenol, pentachloro-
Do	Phenol, 2,3,4,6-tetrachloro-
Do	Phenol, 2,4,5-trichloro-
Do	Phenol, 2,4,6-trichloro-
U137	1,10-(1,2-phenylene)pyrene
U145	Phosphoric acid, Lead salt
U087	Phosphorodithioic acid, 0,0-diethyl-, S-methyl-ester
U189	Phosphorous sulfide (R)
U190	Phthalic anhydride
U191	2-Picoline
U192	Pronamide
U194	1-Propanamine (I,T)
U110	1-Propanamine, N-propyl- (I)
U088	Propene, 1,2-dibromo-3-chloro-
U149	Propenedinitrile
U171	Propene, 2-nitro- (I)
U027	Propene, 2,2'-oxybis(2-chloro-
U193	1,3-Propene sulfone
U235	1-Propanol, 2,3-dibromo-, phosphate (3:1)
U126	1-Propanol, 2,3-epoxy-
U140	1-Propanol, 2-methyl- (I,T)
U002	2-Propanone (I)
U007	2-Propanamide
U084	Propene, 1,3-dichloro-
U243	1-Propene, 1,1,2,3,3,3-hexachloro-
U008	2-Propanenitrile
U152	2-Propanenitrile, 2-methyl- (I,T)
U008	2-Propanoic acid (I)
U113	2-Propanoic acid, ethyl ester (I)
U118	2-Propanoic acid, 2-methyl-, ethyl ester
U182	2-Propanoic acid, 2-methyl-, methyl ester (I,T)
See F027	Propionic acid, 2-(2,4,5-trichlorophenoxy)-
U194	n-Propylamine (I,T)
U063	Propylene dichloride
U198	Pyridine
U155	Pyridine, 2-[(2-(dimethylamino)-2-phenylamino)-
U179	Pyridine, hexahydro-N-nitroso-
U191	Pyridine, 2-methyl-
U164	4(1H)-Pyrimidinone, 2,3-dihydro-6-methyl-2-thio-
U180	Pyrrole, tetrahydro-N-nitroso-
U200	Reserpine
U201	Resorcinol
U202	Saccharin and salts
U203	Safrole
U204	Selenious acid
U204	Selenium dioxide
U205	Selenium disulfide (R,T)

Hazardous Waste No.	Substance
U015	L-Serine, diazoacetate (ester)
See F027	Silver
U089	4,4'-Stilbene-diol, alpha, alpha'-diethyl-
U206	Streptozotocin
U135	Sulfur hydride
U103	Sulfuric acid, dimethyl ester
U189	Sulfur phosphide (R)
U205	Sulfur selenide (R,T)
See F027	2,4,5-T
U207	1,2,4,5-Tetrachlorobenzene
U208	1,1,1,2-Tetrachloroethane
U209	1,1,2,2-Tetrachloroethane
U210	Tetrachloroethylene
See F027	2,3,4,6-Tetrachlorophenol
U213	Tetrahydrofuran (I)
U214	Thallium(I) acetate
U215	Thallium(I) carbonate
U216	Thallium(I) chloride
U217	Thallium(I) nitrate
U218	Thioacetamide
U153	Thiomethanol (I,T)
U219	Thiourea
U244	Thiram
U220	Toluene
U221	Toluenediamine
U223	Toluene diisocyanate (R,T)
U222	O-Toluidine hydrochloride
U011	1H-1,2,4-Triazol-3-amine
U226	1,1,1-Trichloroethane
U227	1,1,2-Trichloroethane
U228	Trichloroethene
U228	Trichloroethylene
U121	Trichloromonofluoromethane
See F027	2,4,5-Trichlorophenol
Do	2,4,6-Trichlorophenol
Do	2,4,5-Trichlorophenoxyacetic acid
U234	sym-Trinitrobenzene (R,T)
U182	1,3,5-Trioxane, 2,4,5-trimethyl-
U235	Tri(2,3-dibromopropyl) phosphate
U236	Trypan blue
U237	Uracil, 5[bis(2-chloromethyl)amino]-
U237	Uracil mustard
U043	Vinyl chloride
U248	Warfarin, when present at concentrations of 0.3% or less
U239	Xylene (I)
U200	Yohimban-16-carboxylic acid, 11,17-dimethoxy-18-[(3,4,5-trimethoxy-benzoyloxy)-, methyl ester
U249	Zinc phosphide, when present at concentrations of 10% or less.

Hazardous Waste No.	Substance	Hazardous Waste No.	Substance
U208	Ethene, 1,1,1,2-tetrachloro-	U150	Melphalan
U209	Ethene, 1,1,2,2-tetrachloro-	U151	Mercury
U218	Ethanethioamide	U152	Methacrylonitrile (I,T)
U247	Ethane, 1,1,1-trichloro-2,2-bis(p-methoxy-phenyl).	U092	Methanamine, N-methyl- (I)
U227	Ethane, 1,1,2-trichloro-	U029	Methane, bromo-
U043	Ethene, chloro-	U045	Methane, chloro- (I,T)
U042	Ethene, 2-chloroethoxy-	U048	Methane, chloromethoxy-
U078	Ethene, 1,1-dichloro-	U068	Methane, dibromo-
U079	Ethene, trans-1,2-dichloro-	U080	Methane, dichloro-
U210	Ethene, 1,1,2,2-tetrachloro-	U075	Methane, dichlorodifluoro-
U173	Ethanol, 2,2'-(nitrosoimino)bis-	U138	Methane, iodo-
U004	Ethanone, 1-phenyl-	U119	Methanesulfonic acid, ethyl ester
U006	Ethanoyl chloride (C,R,T)	U211	Methane, tetrachloro-
U112	Ethyl acetate (I)	U121	Methane, trichlorofluoro-
U113	Ethyl acrylate (I)	U153	Methanethiol (I,T)
U238	Ethyl carbamate (urethan)	U225	Methane, tribromo-
U038	Ethyl 4,4'-dichlorobenzilate	U044	Methane, trichloro-
U114	Ethylenebis(dithiocarbamic acid)	U121	Methane, trichlorofluoro-
U067	Ethylene dibromide	U123	Methanoic acid (C,T)
U077	Ethylene dichloride	U038	4,7-Methanoiden, 1,2,4,5,6,7,8,8-octa-chloro-3a,4,7,7a-tetrahydro-
U115	Ethylene oxide (I,T)	U154	Methanol (I)
U116	Ethylene thiourea	U155	Methapyrilene
U117	Ethyl ether (I)	U247	Methoxychlor
U076	Ethylidene dichloride	U154	Methyl alcohol (I)
U118	Ethylmethacrylate	U029	Methyl bromide
U119	Ethyl methanesulfonate	U188	1-Methylbutadiene (I)
U139	Feric dextran	U045	Methyl chloride (I,T)
U120	Fluoranthene	U156	Methyl chlorocarbonate (I,T)
U122	Formaldehyde	U226	Methylchloroform
U123	Formic acid (C,T)	U157	3-Methylcholanthrene
U124	Furan (I)	U158	4,4'-Methylenbis(2-chloroaniline)
U125	2-Furancarboxaldehyde (I)	U132	2,2'-Methylenbis(3,4,6-trichlorophenol)
U147	2,5-Furandione	U068	Methylene bromide
U213	Furan, tetrahydro- (I)	U080	Methylene chloride
U125	Furfural (I)	U122	Methylene oxide
U124	Furfuran (I)	U159	Methyl ethyl ketone (I,T)
U208	D-Glucopyranose, 2-deoxy-2(3-methyl-3-nitroso-urido)-	U180	Methyl ethyl ketone peroxide (R,T)
U126	Glycidaldehyde	U138	Methyl iodide
U163	Guanidine, N-nitroso-N-methyl-N'-nitro-	U161	Methyl isobutyl ketone (I)
U127	Hexachlorobenzene	U162	Methyl methacrylate (I,T)
U128	Hexachlorobutadiene	U163	N-Methyl-N'-nitro-N-nitrosoguanidine
U129	Hexachlorocyclohexane (gamma isomer)	U161	4-Methyl-2-pentanone (I)
U130	Hexachlorocyclopentadiene	U164	Methylthiouracil
U131	Hexachloroethane	U010	Mitomycin C
U132	Hexachlorophene	U059	5,12-Naphthalenedione, (8S-cis)-8-acetyl-10-[(3-amino-2,3,6-trideoxy-alpha-L-xyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-
U243	Hexachloropropene	U165	Naphthalene
U133	Hydrazine (R,T)	U047	Naphthalene, 2-chloro-
U086	Hydrazine, 1,2-diethyl-	U166	1,4-Naphthalenedione
U098	Hydrazine, 1,1-dimethyl-	U236	2,7-Naphthalenedisulfonic acid, 3,3'-[(3,3'-dimethyl-(1,1'-biphenyl)-4,4'-diyl)]-bis (azo)bis(5-amino-4-hydroxy)-, tetrasodium salt
U099	Hydrazine, 1,2-dimethyl-	U166	1,4-Naphthalenedione
U109	Hydrazine, 1,2-diphenyl-	U167	alpha-Naphthylamine
U134	Hydrofluoric acid (C,T)	U168	beta-Naphthylamine
U134	Hydrogen fluoride (C,T)	U026	2-Naphthylamine, N,N'-bis(2-chloromethyl)-
U135	Hydrogen sulfide	U169	Nitrobenzene (I,T)
U096	Hydroperoxide, 1-methyl-1-phenylethyl- (R)	U170	p-Nitrophenol
U136	Hydroxydimethylarsine oxide	U171	2-Nitropropane (I)
U116	2-Imidazolidinethione	U172	N-Nitrosodi-n-butylamine
U137	Indeno[1,2,3-cd]pyrene	U173	N-Nitrosodiethanolamine
U139	Iron dextran	U174	N-Nitrosodiethylamine
U140	Isobutyl alcohol (I,T)	U111	N-Nitroso-N-propylamine
U141	Isoctrole	U176	N-Nitroso-N-ethylurea
U142	Kepons	U177	N-Nitroso-N-methylurea
U143	Lasiocarpine	U178	N-Nitroso-N-methylurethane
U144	Lead acetate		
U145	Lead phosphate		
U146	Lead subacetate		
U128	Lindane		
U147	Maleic anhydride		
U148	Maleic hydrazide		
U148	Malononitrile		

APPENDIX F

"State of Nevada Hazardous Materials Operations Support Plan," June 1986.

APPENDIX F

STATE OF NEVADA
HAZARDOUS MATERIALS
OPERATIONS SUPPORT PLAN

Prepared by:
State of Nevada Hazardous Materials Committee
and
Nevada Division of Emergency Management
June 1986



THE STATE OF NEVADA
EXECUTIVE CHAMBER

Carson City, Nevada 89710

RICHARD H. BRYAN
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May 29, 1986

To: The State Hazardous Materials Committee:

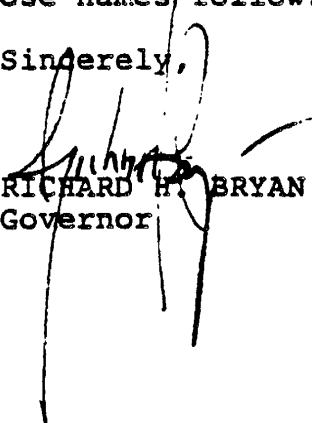
I would like to express my personal appreciation to the members of the Committee who have given their time and expertise in the development of this plan.

The handling of hazardous materials is fast becoming America's number one public safety concern. While the tragedies in Bhopal and Chernobyl grab headlines, smaller but no less significant accidents are occurring in the United States, as well.

Here in Nevada the transportation, storage and use of hazardous materials have increased dramatically over the last decade. This trend is disturbing, and highlights our need to upgrade the analysis of hazardous materials, as well as the preparation, training and coordinated efforts of emergency response and management personnel. With the completion of the State Hazardous Materials Operations Support Plan, I believe we have made a good beginning.

Again, my personal thanks to those who cooperatively developed this plan, and whose names follow.

Sincerely,


RICHARD H. BRYAN
Governor

RHB/sc

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SPECIAL ACKNOWLEDGMENT TO THE FOLLOWING PRIVATE SECTOR ORGANIZATIONS THAT
ADDITIONALLY CONTRIBUTED THEIR EXPERTISE TO THIS PLAN'S DEVELOPMENT:

Association of General Contractors
GTE Government Systems Corporation (Henderson)
Kerr-McGee Chemical Corporation (Henderson)
McKesson Chemical Company (Carlin)
Pacific Engineering and Production Company
Sierra Chemical Company
Southern Pacific Transportation Company (Railroad)
Stauffer Chemical Company
Union Pacific Railroad

LEGISLATIVE LIASON

Senator Lawrence Jacobsen
Assemblyman James Schofield

STATE OF NEVADA
HAZARDOUS MATERIALS OPERATIONS SUPPORT PLAN

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HAZARDOUS MATERIAL EMERGENCY RESPONSE

TELEPHONE DIRECTORY

<u>AGENCY/ORGANIZATION</u>	<u>TELEPHONE</u>
Agriculture, Department of	789-0180
American Red Cross	North and Central Nevada 322-3416 Eastern Nevada 801/582-3431 Clark County 384-1225
Association of General Contractors	329-6116 (work days) 322-2803 (24-hr)
C P National Gas (Henderson)	565-8941
Cal-Nev Pipeline (Las Vegas)	644-3943
CHEMTREC	800/424-9300 (24-hr)
Civil Air Patrol	358-3700
Coast Guard, U.S. - National Response Center	800/424-8802
Conservation and Natural Resources, Dept. of	885-4360
Environmental Protection, Division of	885-4670
Forestry, Division of	849-2500
DuPont Chemical	(Carlin) 754-6333 (CHEMTREC) 800/424-9300
Emergency Management, Division of (24-hr coordinating agency; incident reporting)	885-4240 (work days) 885-5300 (24-hr)
Energy, U.S. Dept. of	295-1278 (work days) 295-3343 (24-hr)
Environmental Protection Agency	
Regional Office - San Francisco	415/974-8131
Environmental Monitoring Systems Laboratory, Las Vegas	798-2525 295-3343 (24-hr)
Federal Emergency Management Agency (FEMA)	415/556-8794
Fire Marshal Division	885-4290
GTE Government Systems Corporation (Henderson)	564-8300

TELEPHONE DIRECTORY (cont'd)

Human Resources, Department of	885-4400
Administration/Board of Health	885-4740
Consumer Health Protection (Engineering/Sanitation)	885-4750
Emergency Medical Services	885-3065
Radiological Health	885-5394
Industrial Relations, Department of	885-3032
Kerr-McGee Chemical Corp (Henderson)	565-8901
Liquefied Petroleum Gas Board, Nevada	885-4890
McKesson Chemical Co. (Carlin)	754-6373
Military Department	887-7200
Mines, U.S. Bureau of (Dept. of Interior)	Reno 784-5394
Motor Vehicles and Public Safety, Department of	
Nevada Highway Patrol, Headquarters, Carson City	885-5300 (24-hr)
Statewide Emergency: call operator, ask for	Zenith 1-2000 (24-hr)
National Poison Antidote Center (NPAC)	800/424-9300
National Response Center (NRC)	800/424-8802
Nevada Power Company (Las Vegas)	367-5161 367-5906 (dispatch)
Pacific Engineering and Production Company	565-8741
Pesticide Hot Line	800/531-7790
Poison Control Centers	
Humana Hospital Sunrise (Las Vegas)	732-4989
St. Mary's Hospital (Reno)	789-3013
University Medical Center (Las Vegas)	385-1277
Washoe Medical Center (Reno)	785-4129
Public Service Commission	885-5134

TELEPHONE DIRECTORY (cont'd)

Sierra Chemical Company	786-7777 (work days) 851-1863 (24-hr) (Battle Mountain) 635-2495 Toll free 1-800-648-6310
Sierra Pacific Power Company (Reno)	
PCBs	789-4754
Oil spills	789-4379
Southern Pacific Transportation Company (Railroad) (Dispatcher, Roseville, CA)	916/781-5151 or 781-5157
Southwest Gas Corporation (Northern Nevada)	882-0148 (24-hr)
Southwest Gas Corporation (Southern Nevada)	876-7221 (24-hr)
State Industrial Insurance System	885-5245
Stauffer Chemical Company	565-8781
Transportation, Department of	885-5440
Transportation, U.S. Department of - Nevada Division	885-5335
Union Pacific Railroad	Las Vegas 384-0866 Salt Lake City 801/359-7505
Van Waters and Rodgers	(Las Vegas) 736-7066 (Sparks) 331-3370
The 34th Ordnance Detachment, Explosive Ordnance Disposal Team Sierra Army Depot at Herlong, California	916/827-4408
The 259th Ordnance Detachment, Explosive Ordnance Disposal Team Fort Irwin, California	619/386-4092

BASIC PLAN

**BASIC PLAN
STATE OF NEVADA
HAZARDOUS MATERIALS OPERATIONS SUPPORT PLAN**

I. PURPOSE

The purposes of this plan are to provide:

- A. A base for coordinated hazardous materials response and recovery support efforts by State Government in cooperation with local, Federal, and private organizations.
- B. An inventory of resources available to respond to hazardous materials emergencies and to assist with training and preparation for such emergencies.

II. SCOPE

- A. This plan has been developed to provide information and procedures relative to state support in combination with Federal and private assistance to deal with hazardous materials emergencies of any kind.
- B. It does not address local plans and operations, but provides support mechanisms to local authorities by state agencies in cooperation with Federal and private organizations when needed and so requested.

III. AUTHORITY

The authority for this plan is derived from the following:

- A. NRS 414.020 to 414.160 - Emergency Management
- B. NRS 415.010 - Interstate Mutual Compact
- C. NRS 444.700 to 444.778 - Sanitation
- D. NRS 445.131 to 445.354 - Water controls; air pollution
- E. NRS 459 - Hazardous materials (Western Interstate Nuclear Compact)
- F. NRS 586.010 to 586.450 - Pesticides
- G. NRS 704 - Public Utilities Regulations
- H. U.S. Code of Federal Regulations Title 40, Parts 100-359
- I. U.S. Code of Federal Regulations Title 49, Parts 100-399
- J. Federal Water Pollution Control Act Amendments of 1972 (PL 92-500)
Clean Water Act
- K. State of Nevada Emergency Plan
- L. Memorandum of Understanding for Hazardous Materials, November 1984

BASIC PLAN (cont'd)

IV. DEFINITIONS

- A. BLEVE (Boiling Liquid Expanding Vapor Explosion) Highly flammable/explosive hazard ordinarily resulting from compressed gasses.
- B. Cargo Manifest A document, list or storage plan sent with goods in transit via vessels. The manifest will include information on the vessel and hazardous materials on board.
- C. Carrier An individual or organization transporting passengers or goods for hire by land, water or air.
- D. CHEMTREC (Chemical Transportation Emergency Center) Washington D.C. based center which is a service of the Chemical Manufacturers Association. CHEMTREC provides advice for those at the scene of emergencies and will contact the shipper involved for additional information and assistance as necessary.
- E. Incident Any occurrence which causes the use of emergency resources.
- F. Federal Regional Response Team (RRT) The teams are established under Section 311 of the Federal Clean Water Act and National Contingency Plan and are comprised of representatives from local, State, and Federal agencies. The RRT serves as the regional body for planning and preparedness activities, and provides coordination and advice during an incident. It is ordinarily chaired by either the Environmental Protection Agency (EPA) or the United States Coast Guard.
- G. Hazardous Materials Any materials, substances, mixture of substances or wastes which possess one or more of the following characteristics: poisonous, toxic, corrosive, radioactive, an irritant, volatile, a strong sensitizer, oxidizer, flammable, combustible, explosive or compressed gases in such quantities as to present an imminent and substantial danger to public health or property; or to fish, shellfish, livestock, wildlife, waterways, or vegetation.
- H. Hazardous Waste Manifest A shipping document listing waste chemicals and volumes on board. The generator's name and emergency response information are also contained on the manifest.
- I. Release (of Hazardous Material) Any spilling, leaking, emitting, discharging, injecting, escaping, leaching, dumping, or disposing into the environment.
- J. Responsible Party The owner, user, shipping agent, carrier, or other individuals in whose custody the material has been placed.

BASIC PLAN (cont'd)

IV. DEFINITIONS (cont'd)

- K. Risk The probability that damage to life, property, and/or the environment would occur if a hazard manifests itself.
- L. Shipper One that sends goods by any form of conveyance.
- M. Shipping Document A manifest, bill of lading, or other document which identifies the cargo being carried by a transporter.
- N. Superfund A Federal account established under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (Public Law 96-510) to clean up abandoned hazardous waste sites, and provide funds for emergency response to hazardous substance incidents.

BASIC PLAN (cont'd)

V. CONCEPT OF OPERATIONS

- A. Under Federal Regulations and provisions of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) the primary responsibility for the control of hazardous materials resides with the owner, user, shipping agent, carrier, or other individuals in whose custody the material has been placed. However, in the event of an incident or accident resulting in loss of control of a hazardous material by the responsible party, it would ordinarily be the responsibility of local government to respond and seek assistance as necessary. Exceptions would be incidents that occur within State or Federal jurisdictions such as state highways or military installations, or in situations where State or Federal pre-emption is mandated by law.
- B. State involvement, with exceptions as noted above, would be at the request of a local jurisdiction when it has been determined that additional resources or expertise is necessary to effectively deal with the situation.

VI. HAZARDS ANALYSIS

A. Summary

This section of the plan addresses the hazardous materials problems which confront Federal, State, and local agencies throughout the State. The information on potential hazards which are described in this section should help reinforce, support, and justify the need for hazardous materials training at all levels of emergency response and management. At the same time it should point up the need for procurement of personal protective gear, and professional hazmat response, recovery, and clean-up equipment for those State and local emergency departments with very limited capabilities.

B. Transportation

Hazardous materials of every type, as defined in CFR 49 - Transportation - Parts 100-177, are transported throughout the State of Nevada on a daily basis by the four common modes of transportation:

Highway

Vehicle - Main arteries include:

1. Interstate Highways I-80 and I-15 have the highest density of hazardous materials movement on a daily basis with a daily average of over 230 shipments.

BASIC PLAN (cont'd)

VI. HAZARDS ANALYSIS (cont'd)

2. U.S. Highways 50, 95, 395, 93
3. Numerous county and urban roadways

Railroad - Main routes include:

1. Southern Pacific RR - (Montello, Wells, Carlin, Winnemucca, Hazen, Reno, Verdi, plus a branch line Hazen-Mina and track-age rights on Union Pacific Winnemucca to Flannigan.)
2. Union Pacific RR - Henderson-Las Vegas, and Baker-Caliente. Wendover, Wells, Elko, Winnemucca, Flannigan, and a branch line - Reno Junction-Reno.
3. Nevada Northern RR (Ely-Cobre)

Air - Main terminals and airports include:

1. Cannon International Airport (Reno)
2. McCarran International Airport (Las Vegas)
3. North Las Vegas, Elko, Ely, Carson City
4. Nellis Air Force Base
5. Indian Springs Air Force Base
6. Fallon Naval Air Station
7. Numerous county/city airports/strips

Water

Shipment of hazardous materials by waterway is very unlikely; however, hazardous materials spills affecting rivers, lakes, creeks, and streams do occur frequently due to accidents involving motor carriers.

Pipelines/Transmission Lines

1. Liquid - There are two interstate pipelines which provide jet fuel to military installations:

BASIC PLAN (cont'd)

VI. HAZARDS ANALYSIS (cont'd)

- a) Los Angeles to Nellis Air Force Base (via Las Vegas) - There are recorded incidents of leakage and/or seepage of fuel in the Las Vegas area emanating from this line.
 - b) Truckee (CA) to Fallon Naval Air Station - This pipeline parallels two significant waterways - the Truckee and Carson Rivers, which could pose an environmental problem in the event of a rupture or leak.
2. High Pressure Gas Transmission Lines - These transmission lines provide natural gas throughout the State of Nevada. The Public Service Commission provides safety oversight for this system.

C. Agriculture Supplies

Pesticides, chemicals, fertilizers, and gaseous ammonia.

D. Mining/Industry

1. The mining industry in Nevada requires large and frequent shipments of hazardous materials, commonly used in mining operations. These shipments occur on main arteries, state/county roads, and rural access ways. Shipment of these materials especially in the rural/remote areas represents a serious and potential hazard to responders with little or no personal protective gear or equipment to cope with a major hazardous materials incident. Chemical products most commonly used in mining processes include, but are not limited to sodium cyanide, chlorine, caustic soda, hydrochloric acid, sulfuric acid, mercury, and explosives.
2. Industrial use and/or manufacture of products requiring hazardous materials or substances is for the most part confined to small industrial complexes in urban areas of the larger cities.

There are some selected complexes or companies where relatively large scale industrial use, manufacture, or shipment of hazardous materials take place:

- a) Henderson Industrial Complex
- b) Carlin (DuPont Chemical Terminal), (Foremost McKesson Company)
- c) Hawthorne Army Ammunition Plant
- d) Sierra Chemical Company (Reno, Battle Mountain)

BASIC PLAN (cont'd)

VI. HAZARDS ANALYSIS (cont'd)

- e) Valmy Power Plant - Sierra Pacific Power Company
- f) Hazen/Wesco (railroad spurs)
- g) Environmental Resource Management (PCBs) - Yerington

E. Hazardous Materials Disposition

1. Beatty Disposal Site (U.S. Ecology) - This is the only authorized recipient for burial or disposal of commercial hazardous waste including low-level radioactive waste.
2. Nevada Test Site (Mercury/DOE) - Location of nuclear tests and other activities involving radioactive and other hazardous materials. Represents a potential hazard for contiguous localities in the event of seepage or venting during testing of nuclear devices. The Department of Energy (DOE) has prepared contingency plans with local governments to respond to such an event. The Department of Energy at the Nevada Test Site (NTS) is an authorized recipient for burial or disposal of defense low-level radioactive waste.

The Nevada Operations Office (NV) of DOE is responsible for all activities at the Nevada Test Site including responding to any NTS related incidents which may affect locations beyond the boundaries of the NTS.

DOE also provides a 24-hour response capability to radiation incidents outside the NTS, when requested.

3. Yucca Mountain High-Level Nuclear Waste Repository (Proposed - under study).
4. Nuclear Waste Shipments - Pre-notification of all shipments of low-level nuclear waste into Nevada is provided to the Nevada Highway Patrol who relays this information to the local sheriffs and other proper officials. There are approximately 300 shipments per year.

Pre-notification of shipments of high-level nuclear waste are provided to the Department of Human Resources (Radiological Health) who disseminate this information to appropriate agencies on a need-to-know basis.

F. Illegal/Unauthorized Disposal of Hazardous Waste

Illegal disposal ("dumping") of hazardous material/waste is a recurring problem for State and local officials. This occurs in rural

BASIC PLAN (cont'd)

VI. HAZARDS ANALYSIS (cont'd)

areas, particularly along roads and highways, and poses a serious problem to first responders. In most cases, they cannot identify the substances with which they are confronted. The Nevada Highway Patrol and the State Division of Investigations have a special interest in disposition of these substances because of the possible connection with illegal drug traffic.

G. Propane/Liquid Natural Gas

1. Propane - used extensively throughout Nevada for home, farm, and industrial operations. Could pose a hazard in the event of flooding or earthquake.

Southwest Gas Propane Storage Plant (Reno)

2. Liquid Natural Gas (LNG)

H. G. Laub Liquid Natural Gas Plant (Lovelock)

VII. AUTHORITY FOR MAINTENANCE AND REVIEW

The Division of Emergency Management will be responsible for insuring that the information and procedures outlined in this Plan are kept current. The Director will coordinate a State review of this Plan at least annually during January.

PARTICIPATING AGENCIES

**PARTICIPATING AGENCIES
STATE OF NEVADA
HAZARDOUS MATERIALS OPERATIONS SUPPORT PLAN**

The following lists the capabilities and assignments of State Agencies with hazardous materials responsibilities; and also lists supporting Federal and private organizations capable of providing advice and/or support for hazardous materials incidents.

The purpose of this section is to provide complete information on total capabilities and responsibilities of participating agencies relative to hazardous materials. Specific response capabilities for given incidents are listed in the RESPONSE section.

STATE AGENCIES

1. Agriculture, Department of
789-0180

This agency can furnish technical knowledge and advice in the handling of pesticides (insecticides, herbicides, nematocides, fungicides and fumigants). An extensive library on the properties and toxicities of pesticides is maintained by the department's chief chemist. Pesticide enforcement and investigative activities are available under the department's law and regulations in pesticide emergencies. Assistance can be provided in evaluating hazardous pesticide contamination. Some equipment is available for decontamination operations.

2. Conservation and Natural Resources, Department of
885-4360

a) Division of Environmental Protection
885-4670

Provides technical assistance and oversight on containment and disposal of industrial, hazardous, and radioactive materials. The Division has primary responsibility for the supervision of the disposal of hazardous materials, exclusive of radiological materials.

Informational assistance can be provided regarding toxic materials, their properties and the necessary procedures to be followed in the handling and disposal of such substances.

Portable equipment is available for an analysis of air and water samples. The Division also can provide assistance for the cleanup of hazardous materials.

STATE AGENCIES (cont'd)

b) Division of Forestry

885-4350

849-2500 (24 hr)

Division can provide response assistance to combat fire resulting from hazardous materials accidents; can provide manpower and provides incident command training programs that can be helpful with the management of large incidents.

3. Emergency Management, Division of

885-4240

885-5300 (24-hr)

The Nevada Division of Emergency Management is the State coordinating agency for emergency services; and as such, provides a point of coordination at the State level for hazardous materials incident reporting, planning, training, response, and recovery. Emergency Management provides the single point of contact to coordinate needed support from State, Federal and private organizations to respond to, and recover from, hazardous materials incidents.

The Division will initiate and coordinate the emergency declaration process with the Governor's Office whenever the magnitude of an emergency so warrants.

4. Fire Marshal Division

885-4290

The Fire Marshal's Office is responsible for fire safety building inspections and reviews plans and procedures for new establishments within which hazardous materials would be stored or processed.

Additionally, this Division is the focal point for coordinating National Fire Academy Outreach courses, and training keyed to the handling of hazardous materials fires.

5. Human Resources, Department of

885-4440

a) Administration/Board of Health

885-4740

Can provide medical advice and health information. Can also issue public statements and warnings when needed.

b) Emergency Medical Services

885-3065

Can coordinate Emergency Medical Technician (EMT) support to assist with medical/health problems during an emergency. Can also provide medical training relative to hazardous materials through EMS Training Program.

STATE AGENCIES (cont'd)

c) Radiological Health
885-5394

Has primary responsibility at State level for radiological safety. Regulates use of radiation sources to prevent excessive exposure to public; will assess incidents involving radioactive material to evaluate health risk and will take the necessary steps to eliminate such risk.

d) Consumer Health Protection (Engineering/Sanitation)
885-4750

Has primary responsibility at State level to regulate public water systems and food sources. Consumer Health Protection (CHP) personnel can assess possible contamination of public water systems and food sources by hazardous materials and take necessary action to quarantine water supplies or food contaminated if a public health risk may exist. The personnel of CHP can direct remedial actions to restore safe drinking water sources and to destroy tainted foods, if necessary.

6. Industrial Relations, Department of
885-3032

Provides safety and health consultant services for workplace surveillance; also can provide air monitoring.

7. Liquefied Petroleum Gas Board, Nevada
885-4890

Will provide technical advice for propane incidents.

8. Military Department
887-7200

Can provide manpower and emergency transportation. It can also assist with evacuation, shelter, and mass feeding.

9. Motor Vehicles and Public Safety, Department of
885-5375

Highway Patrol

885-5300 (24 hr)

Statewide Emergency telephone number call operator ask for Zenith 1-2000

The Nevada Highway Patrol has the statutory responsibility to police all primary and secondary highways in the State and to investigate accidents which occur on these highways, including hazardous materials accidents. In addition, the Highway Patrol is the primary enforcement agency for laws and regulations pertaining to the highway transportation of hazardous materials. The Highway Patrol's Carson City communication center functions as the notification point for the Nevada Division of Emergency Management, as well as for pre-notification of all highway shipments of low-level

STATE AGENCIES (cont'd)

radioactive waste.

Highway Patrol troopers have received basic hazardous materials emergency training and specialized training in radiological emergency response. Two hazardous materials teams, one in Las Vegas and one in Reno, have been established to perform specialized hazardous materials regulation enforcement.

Highway Patrol vehicles are equipped with radiological survey instruments and dosimeters. The commercial enforcement section has a mobile communications center which is equipped with radios, telephones and a computer terminal, and which can function as a command post in an emergency. The hazardous materials teams are equipped with vans containing air compressors and other equipment. Two small trailers with generators and portable lighting equipment are also available, as well as several pickup trucks equipped with mechanics' tools.

Highway Patrol operates a state-wide radio communications network and has available portable radios for on-scene use. The Highway Patrol is also the State warning point for the National Warning System and has the capability to contact all sheriff's offices, police departments, county emergency operations centers, and weather stations, in the State, on a microwave link.

10. Public Service Commission (PSC)
885-5134

The Commission has the responsibility of responding to and investigating all pipeline incidents involving natural gas, liquified petroleum gas, and liquified natural gas when ownership is a utility under their jurisdiction; can also coordinate response of utilities and common carriers to hazardous materials incidents. The Commission is also the regulatory agency for the transportation of radioactive waste and requires railroads to obtain a permit to load, unload, store or transfer certain hazardous materials in Nevada.

The PSC also administers the Federal Pipeline Rail Safety Program under the provisions of NRS 704.215 for enforcement of FRA Track Safety Standards on all tracks that carry hazardous materials. This includes track inspections and derailment and accident investigations. In addition, the PSC is responsible for enforcing the provisions of NRS 704-705 and NAC 705 related to railroad safety. The railway safety inspector also investigates complaints concerning possible violations and assists the FRA in conducting investigations.

In addition the PSC can coordinate the response of utilities (gas, electric, communications) and common carriers to hazardous materials incidents.

STATE AGENCIES (cont'd)

11. State Industrial Insurance System
885-5245

The System has safety specialists and industrial hygienists located in Reno and Las Vegas for state-wide consultation in emergency situations.

12. Transportation, Department of
885-5440

Available emergency assistance includes:

- a) Furnishing traffic signs and assistance with traffic control
- b) Assistance with clean-up and disposal of accident debris if no other means of clean-up is available

The Department maintains an emergency resources list of equipment for possible utilization in a hazardous materials incident. Can also provide emergency communications support.

Participating Agencies Expenses and Losses

1. Each participating agency shall bear and pay all of its administrative and operational costs and expenses of whatever nature and type--including, but not limited to, salaries, retirement, workman's compensation, etc., incurred in performing emergency assistance pursuant to this plan.
2. Any repair or replacement costs and expenses incident to loss of property or equipment belonging to a participating agency shall be borne and paid by such agency.
3. This section is not intended to preclude any agency from recovering its expenses from private individuals, insurance companies, entities responsible for a hazardous material incident/accident, or special appropriations.

Participating Agencies Documentation

Records of all hazardous materials incidents will be kept by participating agencies for the purposes of:

1. Reimbursement for expenses, when applicable
2. Legal claims
3. Accident investigations
4. Statistics
5. Planning

FEDERAL AGENCIES

1. Coast Guard, U.S. - National Response Center
(800)424-8802

The U.S. Coast Guard is responsible for handling hazardous materials spills on navigable inland waterways.

The Coast Guard also provides a range of hazardous material training courses that include response and clean-up for polluted waterways, industrial accidents, highway accidents and spills.

2. Energy, U.S. Department of - Nevada Operations Office Las Vegas
295-1278
295-3343 (24 hr)

DOE is responsible for all activities at the Nevada Test Site including response for any accidents or incidents resulting from NTS programs.

The Department possesses an extensive 24-hour radiological accident/incident assistance capability and can assist with technical information, clean-up, and on-site assistance at the request of the first-on-scene authority in coordination with the Nevada Division of Emergency Management. Also has assistance capability for hazardous materials other than radiological.

Additionally, DOE provides first-on-scene radiological response training for law enforcement, fire fighters, ambulance attendants, medical examiners, morticians, and emergency medical personnel. When feasible, courses are scheduled as requested.

3. Environmental Protection Agency

a) Regional Office - San Francisco
(415) 974-8131

Can provide informational/technical assistance for hazardous materials incidents. Can also provide response teams for on-site assistance when the magnitude of the event so warrants. Additionally, EPA can provide a wide range of hazardous materials training for first responders.

b) Environmental Monitoring Systems Laboratory -Las Vegas
798-2525
295-3343 (24 hr)

The laboratory has the capability for collecting and analyzing a variety of environmental samples to determine content of radioactive material, and it can make direct measurements of radiation exposure rate and integrated radiation exposure.

FEDERAL AGENCIES (cont'd)

The laboratory also has available a whole-body counter and a lung counter with which to rapidly determine the type and amount of gamma-emitting radio-nuclides deposited in body tissue and plutonium deposited in lung tissue. Both thallium-activated sodium iodide crystal and phoswich detectors are available and in routine use.

4. Federal Emergency Management Agency (FEMA)
(415)556-8794

FEMA will coordinate the Federal response and recovery efforts in the event of a major disaster declaration. The Agency can also provide technical assistance and training through the State Emergency Management Division.

5. Mines, U.S. Bureau of (Dept. of Interior)
Reno 784-5394

Can provide technical advice on explosives and chemicals used in mining. Also has a chemical laboratory in Reno that can perform analysis of unknown chemical substances.

6. National Response Center (NRC)
(800) 424-8802

Is the organization at the Federal level to which reports must be made of all hazardous materials spills that fall under the Comprehensive Environmental Response, Compensation, and Liability Act, (CERCLA), or the Federal Water Pollution Control Act. NRC relays this information to the Federal Regional Coordinator.

7. Transportation, U.S. Department of - Nevada Division
885-5335

Office of Motor Carrier Safety

Agency employees are knowledgeable in the packaging, marking, labeling, storage, loading, and transportation of all hazardous materials. During the clean-up/recovery process, technical knowledge and assistance can be furnished to assure that proper containers, safe vehicles, qualified drivers, necessary marking, placarding, and proper manifest or shipping papers are available for further transportation.

This Agency functions as an investigation and enforcement body with nation-wide capabilities of reconstructing chain-of-events leading up to an accident and/or incident. It regulates the manufacturers and shippers of hazardous materials, the manufacturers of hazardous material containers, the subsequent shippers, and all carriers of hazardous materials on highways. The cause of an incident can be used to establish liability and also to prevent or reduce the occurrence of similar incidents.

FEDERAL AGENCIES (cont'd)

8. The 34th Ordnance Detachment, Explosive Ordnance Disposal Team - Sierra Army Depot at Herlong, California
(916) 827-4408

Can provide technical advice on explosives, and demolition support to Northern Nevada.

9. The 259th Ordnance Detachment, Explosive Ordnance Disposal Team - Fort Irwin, California
(619) 386-4092

Can provide technical advice on explosives, and demolition support to Southern Nevada (Clark, Esmeralda, Nye, and Lincoln Counties).

PRIVATE ORGANIZATIONS

1. American Red Cross
North and Central Nevada 322-3416
Eastern Nevada 801/582-3431
Clark County 384-1225

The American Red Cross can provide relief assistance, mass feeding, clothing, shelter and limited medical care in the event of a major hazardous materials incident requiring evacuation.

2. Association of General Contractors
329-6116

Will provide point of reference to obtain equipment and personnel from the private sector for hazardous materials response and clean-up.

3. C P National Gas (Henderson)
565-8941 (24 hr)

Has ability to respond to their own gas line incidents. May be able to provide mutual aid to other gas utilities.

4. CAL-NEV PIPELINE
(Las Vegas 644-3943)

Transports jet fuel from Los Angeles to Nellis Air Force Base (via Las Vegas).

5. CHEMTREC (Chemical Transportation Emergency Center)
(800) 424-9300

Can provide immediate advice for those handling hazardous materials emergencies; also will contact the shipper of the hazardous materials involved for more detailed assistance and appropriate follow-up.

6. Civil Air Patrol
358-3700

Through a working agreement with the State (Emergency Management) will provide air reconnaissance and can deliver emergency supplies in the event of a major hazardous materials disaster. Also has aerial radiological monitoring capability.

7. DuPont Chemical
(Carlin) 754-6333
(CHEMTREC) 1-800-424-9300

The Carlin plant works with sodium cyanide. They have transportation accident kits and medical supplies. Can also provide training locally.

PRIVATE ORGANIZATIONS (cont'd)

8. GTE Government Systems Corporation (Henderson)
565-8901

Provides some hazardous materials training locally. Maintains a response team and is responsible for its own products.

9. Kerr-McGee Chemical Corp. (Henderson)
564-8300

Responsible for its products. Can provide technical advice.

10. McKesson Chemical Co. (Carlin)
754-6373

Will assist with emergency response to acids and cyanide. Can provide technical advice.

11. National Poison Antidote Center
(800) 424-9300

Provides technical advice and information on poisons.

12. Nevada Power Company (Las Vegas)
367-5161
367-5906 (dispatch)

Technical advice and assistance on PCBs. Provides some training locally.

13. Pacific Engineering and Production Company
565-8741

Produces ammonium perchlorate. Can provide technical advice and some chemical analysis.

14. Pesticide Hot Line
(800) 531-7790

Technical advice on pesticides.

15. Poison Control Centers

a) Humana Hospital Sunrise (Las Vegas)
782-4989

b) St. Mary's Hospital (Reno)
789-3013

c) University Medical Center (Las Vegas)
385-1277

d) Washoe Medical Center (Reno)
785-4129

PRIVATE ORGANIZATIONS (cont'd)

16. Sierra Chemical Company

(Reno) 786-7777
851-1863 (24 hr)
(Battle Mountain) 635-2495
Toll free 1-800-648-6310

Can provide technical assistance, chemical analysis, and some response assistance for a wide range of hazardous materials including mining chemicals, industrial chemicals, gasses, and mining explosives.

17. Sierra Pacific Power Company (Reno)

For technical assistance with PCBs 789-4754
For technical assistance with oil spills 789-4379

18. Southern Pacific Pipeline

(Reno) 358-6971
(Roseville) (916) 624-2431

Transports jet fuel from Truckee, CA. to Fallon Naval Air Station.

19. Southern Pacific Transportation Co. (Railroad) (Dispatch, Roseville, CA)
(916) 781-5151 or 5157

Will provide emergency response teams to handle hazardous materials rail incidents.

20. Southwest Gas Corporation (Northern Nevada)

882-0148 (24 hr)

Has ability to respond to their own gas line incidents. May be able to provide mutual aid to other gas utilities.

21. Southwest Gas Corporation (Southern Nevada)

876-7221 (24 hr)

Has ability to respond to their own gas line incidents. May be able to provide mutual aid to other gas utilities.

22. Stauffer Chemical Company

565-8781

Produces chlorine, caustic soda, and muriatic acid. Company participates in the National Emergency Chlorine Plan with some team members at the plant. Can assist with chlorine emergencies.

23. Union Pacific Railroad (Las Vegas/Southern Nevada)

384-0866 (Las Vegas)
(801) 359-7505 (Salt Lake City)

Will provide emergency response teams to handle hazardous materials rail incidents.

PRIVATE ORGANIZATIONS (cont'd)

24. Van Waters and Rodgers
(Las Vegas) 736-7066
(Sparks) 331-3370

Handles mining chemicals and will provide technical assistance in the event of an emergency.

P R E P A R A T I O N

**PREPARATION
STATE OF NEVADA
HAZARDOUS MATERIALS OPERATIONS SUPPORT PLAN**

1. HAZARDS ANALYSIS It is recommended that local jurisdictions develop a detailed hazards analysis relative to the kinds and amount of hazardous materials that are transported, manufactured and/or used within the respective jurisdictions in order to provide a better foundation for planning, training, general preparation work and the development of response procedures.

Refer to Paragraph VI of this document's BASIC PLAN for a general State analysis.

2. PLANNING - This Plan has been developed to be as consistent as possible with the various local and Federal plans. In like manner it is recommended that individual State agency planning and future planning throughout the State be coordinated in such a manner that all systems and procedures are basically compatible.

Plans should be updated regularly, as needed; and they should be field tested. The Nevada Division of Emergency Management is one available resource that coordinates exercises specifically to test existing plans. At the Federal level, the Environmental Protection Agency, the U.S. Coast Guard, and the U.S. Department of Energy can also help to validate plans with appropriate training exercises.

Local fire districts are ordinarily the lead agencies for purposes of hazardous materials preparation and response; and fire personnel are usually the first responders. It is strongly recommended that, in the absence of other arrangements, all local emergency operations plans take this into account and provide adequate support procedures to assist fire districts as needed.

Local Emergency Management offices have an important coordination support responsibility to: a) keep operations plans current, b) maintain updated call lists, and c) develop and maintain reliable resources lists in order to provide adequate support to first responders when needed and so requested.

3. EQUIPMENT/RESOURCE - Equipment and resources inventories need to be kept current. It is particularly important that the appropriate safety gear be readily available to first responders in addition to the necessary response and clean-up equipment.

PREPARATION (cont'd)

4. TRAINING - Because of the high risk associated with a rapidly increasing variety of hazardous material it is essential that good training be made available on an on-going basis.

Also, in order to properly manage a hazardous materials incident, whatever the size or scope, it is important that all participants have knowledge of their respective roles. They should be knowledgeable of the responsibilities of other participants and insure the orderly transition of responsibility from one level to the next as the incident changes.

Roles and responsibilities are outlined on the following pages. Knowledge needed by each of the defined groups is listed on the attached Matrix. The Matrix establishes the importance of the training to the responder agency/individual. Definition of the meaning of each agency/entity is listed before the Matrix.

The segment of the Training Section entitled Hazardous Materials Training outlines training programs that are available.

RESPONSE FORMAT

ROLE
A. First Responders

RESPONSIBILITY
*On-site Response to and
Immediate Assessment of
the Incident

Fire Department
Sheriff's Office
Highway Patrol
Sanitarians
Ambulance/EMS
(NOT LIMITED TO THE ABOVE,
OTHERS MAY BE INCLUDED)

1. Initial identification of material, assessment of the degree of the problem and risk to self.
2. Immediate safety of other "at risk" public and First Responders.
3. Immediate rescue and first aid of injured or affected persons; notification of health agencies and hospitals of kinds of medical problems encountered; triage and transport where appropriate.
4. Notification of supervisor or next level of responder.
5. Immediate control of the scene (traffic, people, etc.)

*The above is a list of priority actions by First Responders, but not necessarily in order of accomplishment; i.e. a single responder will have to determine what is his first action, depending on the circumstances found at the scene; while multiple responders may accomplish these same tasks simultaneously.

B. Incident Management Team

Officials or their designees of the agencies which may be involved or have statutory responsibility or expertise (such as NEM, Health Division, Fire Department, NHP, etc.) and; if needed on the scene; (may or may not be present) participate in on-going incident management if necessary.

Confirm identification of the hazardous material, confirm need for response by secondary in-depth situation assessments, notification of agencies for activation of the appropriate resources, advise public officials of incident status, activate initial hazard containment and suppression; establish information control center gather data for control centers and provide for media information.

C. Medical and Hospital Personnel

Primary and follow-up treatment victims on delivery at location away from the incident site.

D. Public Officials

State and Local agencies; such as Nevada Emergency Management, Mayors, City Council, Supervisors, Commissioners, County and Local department heads, etc.

Make decisions on additional support resources to be used; authorize and obtain funds for incident management actions; assume responsibility for public and media information; establish alternate public service during and after incident control; cooperate with federal agencies officials in other states, and industry as necessary.

E. Containment/Clean-Up Team

Incident Commander (or management team member), Carrier, Manufacturer, local contractor.

Delineate the extent of the hazard; eliminate the hazard; and restore the environment to its pre-existence condition as verified by the appropriate authority.

F. Media

Reporters and camera crews

Cooperate with incident manager understand necessity of control and basic hazards, understand the organization of the response team.

NEVADA HAZARDOUS MATERIALS PLAN

TRAINING GLOSSARY

INCIDENT COMMANDER

A person, ordinarily the local fire chief or his designee, who assumes command of the responding forces in the management of an incident involving hazardous materials.

FIRE DEPARTMENTS

Generally considered to be First Responder, includes the Chief, line officers, fire-fighters, volunteers and any other personnel who would respond on behalf of the chief.

**SHERIFF'S OFFICES
HIGHWAY PATROL**

Generally considered to be First Responders, includes the Sheriff, Highway Patrol officers, troopers, deputies, reserve officers and any other personnel who would respond on behalf of the Sheriff or the Chief of the Highway Patrol.

SANITARIANS, HYGIENISTS

Considered as possible First Responders for the purpose of this plan; and as Public Health providers in the incident management and clean-up phases.

**AMBULANCE
ASSISTANT**

Secondary First Responders for medical assistance for the first response phase of the incident. Expected to rely on the First Response commander for scene information.

**MEDICAL PERSONNEL
HOSPITAL STAFFS**

Secondary and tertiary care of injured and affected persons (victims). Work is primarily expected to be at a secondary triage/treatment center and/or medical facility away from the immediate site of the incident.

RESCUE/EMS RESERVE

Secondary First Responders back-up personnel, activated by the incident commander as necessary for the rescue and evacuations.

PUBLIC HEALTH

State, county and local health authority, responsible for protection of the health of the general public; i.e. declaring contamination of water or food stuffs, need for evacuations, unwarranted exposure to health hazards, etc.

OTHER STATE AGENCIES,
LOCAL AGENCIES,
COUNTY & LOCAL
DEPARTMENTS

Probable involvement in incident management team, support in providing resources and information to the team as appropriate to the incident.

MAYORS, CITY COUNCIL,
COUNTY COMMISSIONERS,
COUNTY & CITY MANAGERS

Responsible for making decisions on use of resources, manpower, equipment, and funding for management, suppression, and clean-up of the incident.

CLEAN-UP CONTRACTOR

An individual or organization hired or brought in to provide the physical aspects of clean-up and decontamination of a hazardous material incident.

MEDIA

Agency information officers; field media personnel such as reporters and technical crews and public media management.

SCHOOLS,
PUBLIC INSTITUTIONS

Persons responsible for the protection of controlled population under their jurisdiction (administrators, teachers, wardens, and other persons as deemed appropriate by the school/institutions)

GENERAL PUBLIC

Self defined.

CARRIER

Commercial industry or governmental entity which provides and arranges for transportation of hazardous materials between shipper and destination; i.e. vehicle drivers, loaders, dock foremen, freight handlers; and including brokers.

MANUFACTURER

Generator of hazardous materials as a product or waste.

INDUSTRIAL FACILITY

Business enterprise which uses hazardous materials in their business; either in production, or from retail sales or the wholesale market; or which also generate hazardous waste as part of the production process.

Purpose of Matrix

The following matrix identifies the type and degree of knowledge recommended by the various role which have been identified for the various functions associated with hazardous materials events.

Priority for knowledge by roles and by type of skill needed:

Must have	1
Should have	2
Desirable to have	3

A brief example of how to use the following matrix:

Sanitarian/Hygienists would note that they must have (1) Hazard Identification; should have (2) Hazard Awareness, ICS Management, Personal Safety, etc.; and desirable to have (3) Legal Aspects, Suppression Technique, etc.

MATRIX

Degree of
KNOWLEDGE
Recommended

FUNCTION	ROLE	INCIDENT COMMANDERS	SHERIFF'S OFFICE	FIRE DEPARTMENT	HIGHWAY PATROL	SANITARIANS/HYGIENIS	AMBULANCE ATTENDANTS	MEDICAL PERSONNEL	HOSPITAL STAFF	RESCUE/EMS RESERVE	PUBLIC HEALTH	OTHER STATE AGENCIES	LOCAL AGENCIES	MAYOR/CITY MANAGERS	CO. COMM/CO. MANAGER	COUNTY/LOCAL DEPARTM	CLEAN-UP CONTRACTORS	MEDIA SCHOOLS / PUBLIC INSTITUTIONS	GENERAL PUBLIC	CARRIER	MANUFACTURER	INDUSTRIAL FACILITY
HAZARD AWARENESS	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
HAZARD IDENTIFICATION	1	1	1	1	1		1			1	1	1				1	1	2		1	1	1
ICS MANAGEMENT	1	1	1	1	2	1	2	2	2	1	1	1	2	2	2	1		2				2
PERSONAL SAFETY	3	1	1	1	2	1	1	1	1	3	2	2				1	1	1	2	1	1	1
PUBLIC SAFETY	3	1	1	1	2					1	1	2				1	2	3	2	1	1	1
LEGAL ASPECTS	1	3	3	3	3						1	1	2	1	1	2	2			2	2	1
MEDIA RELATIONS	1	2	2	2	2		1	1	2	1	1	1	1	1	1	1		1				
INCIDENT ASSESSMENT	1	1	1	1	1	1					2		1			1				2	3	2
PROPERTY PROTECTION	1	1	1	1	2							2	2				2	1		3	3	3
SUPPRESSION TECHNIQUE	1		2		3					2		2				2	1			1	2	1
HAZ-MAT INJURIES & SYMPTOMS	2	3	3	3		1	1	1	1	3		2								3	2	1
DECONTAMINATION	2	3	2	3	3	1	1	1	1	3		2				2	1				2	1
FUNDING SOURCES	1									2	3	3	3	3	3	2					3	
RESOURCES AVAILABLE	1	1	1	1	2	2	2	3	3	1	1	1	1	1	1	1	1		3			1
HOW TO ACCESS RESPONDERS		1	1	1	2														1	1	1	1
EMS 1st RESPONDER or ADV. FIRST AID		3	3	3					1													
EMT or HIGHER						2			2													

1 - Must have 2 - Should have 3 - Desirable to have

Target Audience key: FR = First Responder
 PO = Public Official
 RM = Resource Manager

SPONSORING AGENCY	COURSE TITLE	COURSE DESCRIPTION	COURSE LENGTH HOURS/DAYS	TARGET AUDIENCE	COST ASSOCIATED	POINT OF COORDINATION	RESTRICTION
Dupont	Process Hazards Management Seminar/Workshop	Development skills and confidence in using methods that can identify potential problems; conduct a successful hazards review; assess potential hazards introduced by changes in operating procedures, equipment modifications, maintenance, and throughout; and variety of other topics.	2 1/2 days	Manufacturing Mgmt & Safety personnel	Unknown	E.I. duPont de Nemours & Co. (Inc.); Professional Development Seminars; Barley Mill Plaza 19; Wilmington, DE 19801-9989	Unknown
Energy, U.S Dept. of (DOE)	First on Scene (FOS) Radiological Response Training for law (LE), fire (FF), and medical personnel (EM)	Discipline specialized condensed versions of the RER course listed under FEMA.	LE - 3 1/2 FF - 2 1/2 EM - 1 EM - 1	FR	Free except for travel and per diem	DOE (295.0996) or local agencies who have assigned quotas from DOE	Limited quotas
Environmental Protection Agency, U.S. (EPA)	1) Personnel Protection and Safety (165.2)	Responders to HAZMAT substances or investigators of uncontrolled waste sites. Provides basic information on the protection and safety of personnel engaged in field operations. Topics include: fundamentals of respiratory protection; types of respiratory protection apparatus, use and limitation of equipment; protective clothing; air monitoring, and safety procedures for conducting response operations. Course is	5 days	Relatively inexperienced FR	Free to government public safety personnel	NEM	Two courses per state are offered by EPA's Cincinnati Training Center. Region IX EPA can supplement this with additional first responder courses

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Target Audience key: FR = First Responder
 PO = Public Official
 RM = Resource Manager

SPONSORING AGENCY	COURSE TITLE	COURSE DESCRIPTION	COURSE LENGTH HOURS/DAYS	TARGET AUDIENCE	COST ASSOCIATED	POINT OF COORDINATION	RESTRICTION
EPA cont'd	2) Incident Mitigation and Treatment Methods (165.3)	Deals with concepts and techniques for containing, controlling, and treating releases of hazardous substances. Topics include: first response considerations; hazard evaluation; containment methods; physical, chemical, and biological treatment; disposal options; and safety during response operations. Classroom only.	5 days	FR/RM	Free to government public safety personnel	NEM	Two courses per state are offered by EPA's Cincinnati Training Center. Region IX EPA can supplement this with additional first responder courses
	3) Air Surveillance for Hazardous Materials (165.4)	Instructs participants in the practices and procedures for air monitoring and sampling for hazardous materials. Topics include: air surveillance programs; air monitoring techniques and instruments; air sampling techniques and equipment; radiation detection instruments; calibration; quality control; exposure guidelines; health and safety considerations; leg implications; and air dispersion and meteorology. Combination of classroom, laboratory, and field exercises with hands-on use of equipment and instruments.	5 days	FR	"	"	"

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SPONSORING AGENCY	COURSE TITLE	COURSE DESCRIPTION	COURSE LENGTH HOURS/DAYS	TARGET AUDIENCE	COST ASSOCIATED	POINT OF COORDINATION	RESTRICTION
EPA cont'd 200	4) Hazardous Material Incident Response Operations (165.5)	Contains same repetition of the EPA 165.2 course on personnel protection and safety. Course focuses on response team function methods, procedures, and safety. Topics Include: respiratory protection apparatus, protective clothing, field monitoring instruments, hazards analysis, toxicology, response organization, and standard operating safety guides. Approximately 1/3 time is classroom; the remainder is hands-on use of monitoring equipment, personnel protective apparatus, and other applications of classroom topics.	5 days	FR	Free to government public safety personnel	NEM	Two courses per state are offered by EPA's Cincinnati Training Center. Region IX EPA can supplement this with additional first responder courses
	5) Hazard Evaluation and Environmental Assessment (165.6)	Provides participants with techniques to assess the potential environmental impact of released hazardous materials. Topics include: fundamentals of toxicology; principles of meteorology; basic information and mathematical models for dispersion of contaminants in air, water, and soil; guidances and standards for the protection of public health; and principles of	4 days	RM	"	"	"

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SPONSORING AGENCY	COURSE TITLE	COURSE DESCRIPTION	COURSE LENGTH HOURS/DAYS	TARGET AUDIENCE	COST ASSOCIATED	POINT OF COORDINATION	RESTRICTION
EPA cont'd	6) Response Safety Decision-making Workshop (165.8)	For persons developing, implementing, or managing safety programs for chemical emergencies or cleanup at abandoned hazardous waste sites. Topics include: safety guidance and regulations, risk assessment, air monitoring, respiratory and protective clothing selection, special problems, and site safety plan development. All classroom.	4 days	RM	Free to government public safety personnel	NEM	Two courses per state are offered by EPA's Cincinnati Training Center. Region IX EPA can supplement this with additional first responder courses. Requires completion of Courses 165.4 or 165.5 or similar course
	7) Sampling for Hazardous Materials (165.9)	Focuses on the types of equipment suitable for hazardous materials sampling and the practices and procedures for safely and effectively collecting samples. Air sampling procedures covered in the 165.4 course are not covered in this course. Topics include: sampling plan development; the statistical basis for sampling; equipment and procedures for sampling containerized materials, surface waters/lagoons, sediments/sludges,	3 days	FR	"	"	

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SPONSORING AGENCY	COURSE TITLE	COURSE DESCRIPTION	COURSE LENGTH HOURS/DAYS	TARGET AUDIENCE	COST ASSOCIATED	POINT OF COORDINATION	RESTRICTION
EPA cont'd		soils and groundwater; compatibility testing; sample shipment; safety in sample collection; and quality control/quality assurance considerations. All classroom.					
202 Federal Emergency Management Agency (FEMA)	Hazardous Materials Planning	Designed for emergency management personnel responsible for hazardous materials planning and coordination. Emphasis on interagency cooperation and the identification of technical assistance available. Topics include: local, state, and Federal mechanisms to assist in planning and response; tactical requirement; hazardous materials characteristics, and regulatory compliance.	5 days	RM	\$55 (meals)	NEM	Limited quotas and course offering in Emmitsburg
FEMA/USDOE	Radiological Emergency Response (RER)	3 1/2 days of theory in a classroom followed by 5 days of hands-on field work related to peacetime radiological incidents designed for state and local response teams.	8 1/2 days	RM Response Teams	FEMA will reimburse hotel and limousine cost in Las Vegas plus travel except for hometown travel. No meals	NEM	Team member only. Limited quotas. U.S. citizens only

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SPONSORING AGENCY	COURSE TITLE	COURSE DESCRIPTION	COURSE LENGTH HOURS/DAYS	TARGET AUDIENCE	COST ASSOCIATED	POINT OF COORDINATION	RESTRICTION
FEMA National Fire Academy 203	Hazardous Materials, Technician I	A four module course designed for HAZMAT response team members and fire prevention personnel. Topics include: description of physical and chemical properties and terms; HAZMAT toxicity; protective equipment and its limitations; HAZMAT detection devices; regulations; identification and numbering systems; employment of data bases; pesticide and farm chemicals protective measures; emergency considerations at fixed facilities; pipeline emergencies; maritime emergencies; aircraft emergencies; railroad emergencies; truck and common carrier emergencies; environmental considerations; decontamination procedures; patching HAZMAT containers and vessels; unique HAZMAT evacuation procedures; confinement methods; and materials control measures.	192 hours	FR	meals	State Fire Marshall's Office	Limited quotas
Fire Marshall's Office P-54	National Fire Academy Outreach Training Programs	Fire Academy Outreach Training	Varies	FR		State Fire Marshall's Office	

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SPONSORING AGENCY	COURSE TITLE	COURSE DESCRIPTION	COURSE LENGTH HOURS/DAYS	TARGET AUDIENCE	COST ASSOCIATED	POINT OF COORDINATION	RESTRICTION	
National Guard, Nevada	1) Transportation and Handling of HAZMAT	Types and materials commonly transported, labeling and packaging criteria safety procedures.	4 days	NNG handlers certifiers	None	NNG		
	2) Refresher course on the above subject		2 days					
Nevada Emergency Management, Division of (NEM) 204	Workshop on Emergency Management	Designed with local authorities to meet specific needs and situations. May be keyed to specific hazardous materials subject matter; utilized local and/or contracted training cadre.	8 hours	Varies as needed	None	NEM	Requires a minimum of four months advance planning. Limited course offerings.	
	Disaster Preparedness Improvement Exercises	Designed with local authorities to meet specific needs and situations.	2-4 hours	Varies as needed	None	NEM	Limited course offerings	
	Integrated Emergency Management Course (IEMC)	Offers training and exercising aimed at interagency participation with elected and appointed officials in multiple hazard response scenarios. Course length varies depending upon whether course is offered on site or in Emmitsburg, MD, at ENI. Local course includes ICS orientation.	3 days (on-site)	PO/RM			NEM	Limited course offerings
			5 days Emmitsburg, MD, ENI campus	PO/RM	\$55 (meals)		NEM	Waiting list

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SPONSORING AGENCY	COURSE TITLE	COURSE DESCRIPTION	COURSE LENGTH HOURS/DAYS	TARGET AUDIENCE	COST ASSOCIATED	POINT OF COORDINATION	RESTRICTION
NEM cont'd	Public Officials Conference (POC)	Aimed at addressing public officials awareness of a specific topic within their roles as decision maker in an emergency.	3 hours	PO/RM	None	NEM	Limited course offerings
Nevada Division of Forestry 205	National Interagency Incident Management System (NIIMS) Incident Command System (ICS) (ICS 220)	Orientation to ICS, nomenclature used and case studies where ICS has been utilized.	Varies	FR/RM	None	NDF	None
Occupational Safety & Health, Division of (DOSH)	1) Asbestos Hazards	Review of asbestos hazards and methods of dealing with them.	3 days	FR			
	2) Respiratory Protection	Program review of protective equipment and techniques.	Varies	FR			
	3) Various	Courses designed to address specific occupational safety and health.	Varies	FR			
Railroads, Association of American Transportation Test Center, Pueblo, CO P-56	1) Tank car Safety Program	Realistic experience and classroom instruction in responding to highway accidents involving over-the road HAZMAT carriers. Classroom & field.	5 days	FR	\$595 tuition plus travel, room, & meals	TST Box 11130 Pueblo, CO 303/545-5660	Unknown

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SPONSORING AGENCY	COURSE TITLE	COURSE DESCRIPTION	COURSE LENGTH HOURS/DAYS	TARGET AUDIENCE	COST ASSOCIATED	POINT OF COORDINATION	RESTRICTION
Railroad Association cont'd	2) HAZMAT Spill Control Course	Designed to provide participants with information and training necessary for handling an oil spill. Classroom and field.	5 days	FR	"		
Shell Oil Western Distribution Area 206	Program	Overview the handling of hazardous material incidents of the type which may occur during the transportation of petroleum products in an aluminum truck trailer.	1-2 days	FR	Unknown	Shell's Health, Safety & Environmental Rep. 714/991-9200 ext. 577	Once per year
Southern Pacific Transportation Co.	Response Course for Railroad HAZMAT Accidents	3 hours classroom theory followed by 1 hour of hands-on exercise.	4 hours	FR		NEM	
Transportation, U.S. Dept. of Transportation Safety Institute	Hazardous Materials Safety Inspection and Enforcement Training Course	Designed to equip participants with the skills necessary to conduct basic inspections of hazardous material shipments to determine compliance or noncompliance of regulations by shipper or motor carrier. Topics include: 49 CFR Parts 100-149; proper shipping name and hazard classification; marking, labeling, and placarding requirements; shipping papers and packaging; reclassifying hazardous materials to consumer commodities; radioactiver materials: cargo tank inspection	10 days	FR (enforcement)	no fee (lodging, meals, transportation are not included)	TSI 405/686-4824	Located in Oklahoma City OK

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SPONSORING AGENCY	COURSE TITLE	COURSE DESCRIPTION	COURSE LENGTH HOURS/DAYS	TARGET AUDIENCE	COST ASSOCIATED	POINT OF COORDINATION	RESTRICTION
Transportation Safety Institute cont'd		procedures; enforcement techniques and policies; motor carrier operating requirements, exemptions and their potential impact on the State function.					
University of Nevada, Reno Fire Protection Training Academy	1) HAZMAT Tank Truck Roll-over Course	In-depth class covering all types of hazardous materials involving the use of classroom and hands-on training.	Three 8 hr sessions (Total 24 hours)	FR	\$275	UNR Fire Academy	None
	2) Fire Emergency Management Course	Basic outline of the IC system and how each facility fits in that organization.	"	PO/RM	"	"	"

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R E S P O N S E S U P P O R T

**RESPONSE SUPPORT
STATE OF NEVADA
HAZARDOUS MATERIALS OPERATIONS SUPPORT PLAN**

I. HAZARDOUS MATERIALS INCIDENTS - RESPONSIBILITY

- A. THE PRIMARY RESPONSIBILITY FOR THE CONTROL OF HAZARDOUS MATERIALS RESIDES WITH THE OWNER, USER, SHIPPING AGENT, CARRIER, OR OTHER INDIVIDUAL IN WHOSE CUSTODY THE MATERIAL HAS BEEN PLACED.

Following any hazardous materials incident the responsible party should be contacted, if not already on scene, to provide information on the nature of the material involved, technical advice, response, and clean-up assistance as needed, and reimbursement for costs incurred.

- B. FIRST RESPONSE is ordinarily handled by local officials, generally the fire services with support from law enforcement and other local agencies. Local or county health districts play a major support role in many jurisdictions by helping to evaluate the hazard and providing medical advice. Clean-up assistance can often be provided by local roads or public works departments. Private commercial companies with hazardous materials experience often provide important technical advice, and public utilities are an important source of assistance in the areas of their expertise. When evacuation is necessary, local school districts in cooperation with Red Cross very often provide the necessary shelter and feeding arrangements. Local coordination support can be provided by the various city/county Emergency Management offices.

Local officials, and most probably the local fire chief or his designee, will ordinarily be in charge of a hazardous materials incident unless it occurs within the State or Federal jurisdictions, or is a situation where primary responsibility, other than local, is mandated by law.

Requests for assistance from State or Federal agencies are made by the official in charge of the incident or his designee when local resources need to be supplemented, or additional services are needed to handle the situation. It is critically important that continual two-way communications be maintained between the official requesting assistance and the State coordinating agency until such time as the incident is satisfactorily resolved.

The Nevada Division of Emergency Management is the State coordinating agency through which local requests for State assistance should be directed

- C. STATE SUPPORT capability is detailed in category IV of this section. The Nevada Division of Emergency Management will provide the point of coordination for State support and, when necessary, that of Federal and private organizations.

RESPONSE SECTION (cont'd)

The State agency that is most likely to be either on-scene or first on-scene is The Nevada Highway Patrol (NHP). NHP personnel receive hazardous materials training on a regular basis and can often be of invaluable assistance to first responders. Of particular importance at the time of emergency is Highway Patrol's statewide communications network that enables rapid communications from the incident scene to dispatch offices around the State.

II. HAZARDOUS MATERIALS INCIDENTS - SAFETY PRIORITY

- A. THE MOST IMPORTANT SINGLE CONSIDERATION IN COORDINATING HAZARDOUS MATERIALS RESPONSE SUPPORT IS THE SAFETY OF THE INDIVIDUALS INVOLVED.
It should always be kept in mind that the majority of deaths and injuries attributable to hazardous materials accidents are sustained by first responders.

The following guidelines should be applied to all incidents:

1. First Priority - Protection of life and health
 - a. Hazards Identification - Know the material/s being dealt with. If identification is not readily available through shipper, shipping papers, placards, etc., have an analysis done if at all possible.
 - b. Response Procedure - It is essential that appropriate response procedure and equipment be utilized consistent with personal safety. Local fire districts possess considerable knowledge about response techniques. Additional guidance may be obtained through such sources as the shipper/manufacturer, the DOT Emergency Response Guidebook, CHEMTREC, local health districts, and the other organizations listed in this section of the State Hazardous Materials Response Support Plan.
2. Minimization of Property Damage*
Containment; clean-up
3. Protection of the Natural Environment*
Containment; clean-up

*Priorities are not intended with the listing of items 2 and 3. Ordinarily, the situation will dictate priorities beyond that of personnel safety which needs always to be the foremost consideration.

RESPONSE SECTION (cont'd)

III. HAZARDOUS MATERIALS REPORTING AND REQUESTS FOR ASSISTANCE

- A. The Nevada Division of Emergency Management (885-4240; 885-5300 24-hr)
Provides the single point of contact and coordination for the purposes of reporting incidents and coordinating responses support among State, Federal, and private organizations.

Upon notification the Division will:

1. Immediately contact agencies and organizations that can be of assistance.
 2. Assure reporting compliance by notifying appropriate agencies of incident detail.
 3. Continue follow-up with responding agencies/organizations as necessary.
 4. Record incidents for informational and statistical purposes.
 5. Work with the Governor's Office on State and/or Federal emergency declarations if magnitude of the incident so warrants.
- B. When contacting Emergency Management provide as much of the following information as possible:
1. Nature and description of incident
 2. Your (caller's) name and telephone number
 3. Name and telephone number of follow-up contact (if different from #2)
 4. Type of hazardous material, including I.D. numbers, if known
 5. Quantity involved
 6. Location of incident
 7. Date and time of incident
 8. Risk/hazard involved (public health, waterways, etc.)
 9. Weather conditions, if a factor
 10. Name/s of shipper/manufacturer
 11. Action that has been taken including name of person or agency in charge
 12. Specific assistance needed

RESPONSE SECTION (cont'd)

IV. HAZARDOUS MATERIALS INCIDENTS - RESPONSE SUPPORT

A. CHEMICALS/PESTICIDES/POISONS

This category of hazardous materials can range from mere irritants to lethal substances. Primary danger results from inhalation, ingestion, and absorption. Also flammable potential in many instances.

It is essential that accurate identification of material/s is made prior to response and clean-up.

Any hazardous substance spill should be approached cautiously. If there is the least question concerning safe and appropriate response/clean-up procedure, be certain to obtain accurate information from the best available source such as CHEMTREC, the manufacturer, DOT Emergency Response Guidebook, State Department of Agriculture, or local health districts before proceeding.

Class A Poison is a gas or liquid of such a nature that a very small amount is dangerous to life; hydrogen cyanide, phosgene, and nitrogen tetroxide are examples.

Class B Poison is any substance (liquid or solid) known to be so toxic that a severe health hazard exists if the material is released during transportation. Examples: tetraethyl lead, parathion, aniline.

Etiologic Agents are living micro-organisms that may cause human disease. Examples are: Anthrax, botulism, rabies, and tetanus.

Irritating Materials are liquids or solids which, upon contact with fire or exposure to air, give off dangerous or irritating fumes.

Corrosives are any liquid, gas, or solid that can destroy human skin tissue or any liquid that has a severe corrosion rate on steel. These are ordinarily acids such as sulfuric, nitric, hydrochloric, or bases such as sodium hydroxide, potassium hydroxide, hydrogen fluoride, and alkaline battery fluid.

PCB (Polychlorinated Biphenyl) is used in capacitors and transformers primarily; also found in fluorescent lights, hydraulic fluids, plasticizers (paints), to list a few. PCB is similar in structure to DDT. It is pervasive, persistent, and insoluble in water. Should not be handled without consulting the manufacturer (Monsanto Chemical Corp.) or local power company.

RESPONSE SECTION (cont'd)

Pesticides - Important that spill be contained as much as possible. Needs to be kept from entering storm drains, wells, ditches, or water systems. Appropriate protective clothing a must.

The Nevada Division of Emergency Management (885-4240; 885-5300 24-hr.) will coordinate response support and reporting requirements as needed. Agencies/organizations that can provide support assistance for this category of hazardous materials follow:

1. Agriculture, Nevada Department of
789-0180

Can provide technical information and advice regarding the handling of pesticides.

2. Association of General Contractors
329-6116

Will provide point of reference to obtain equipment and personnel from the private sector for hazardous materials response and clean-up.

3. CHEMTREC
(800) 424-9300 (24-hr)

Can provide immediate advice for those handling hazardous materials emergencies; also will contact the shipper of the hazardous materials involved for more detailed assistance and appropriate follow-up.

4. Emergency Management, Division of
885-4240 (work days)
885-5300 (24-hr)

Provides 24 hour point of coordination for response support, reporting requirements, follow-up, and recovery efforts.

5. Emergency Medical Services, Nevada Division of Health
885-3065

Can coordinate emergency medical technicians and ambulance services in support of accident situation.

6. Environmental Protection Agency - Regional Office
(415) 974-8133 (24-hr)

Provides information and technical assistance. Will also provide field support when lives and/or property are threatened.

RESPONSE SECTION (cont'd)

7. Environmental Monitoring Systems Laboratory - Las Vegas,
Environmental Protection Agency
295-3343 (24-hr)

Can provide hazardous materials analysis. Requests for such analysis should be made through EPA - Region IX (#6 above).

8. Environmental Protection, Nevada Division of
885-4670

Hazardous Waste Program

Provides technical advice and supervision for the disposal of hazardous waste. Provides consultation regarding the containment and disposal of industrial/hazardous material. Can also provide assistance with the analysis of unidentified hazardous materials.

9. Forestry, Nevada Division of
885-4350

Can provide response assistance to combat fire resulting from hazardous materials accidents.

10. Health Division, Nevada
885-4740

Provides medical advice regarding hazardous materials. Can also issue public statements and warnings.

11. Highway Patrol, Nevada Division of
885-5300

Is the primary enforcement agency for laws and regulations pertaining to the highway transportation of hazardous materials. This is the State agency that is ordinarily first on scene. Will assess situation as needed, provide traffic control, and assistance as situation and capabilities allow. Has excellent state-wide communications capability and will provide communications support as needed.

12. Industrial Insurance System, Nevada
885-5245

Has safety specialists and industrial hygienists located in Reno and Las Vegas for state-wide consultation in emergency situations.

13. Industrial Relations, Department of
885-3032

Provides safety and health consultant services for work-place surveillance; also can provide air monitoring.

RESPONSE SECTION (cont'd)

14. Military, Department of
887-7200

Will assist with evacuation, shelter, and feeding if necessary. Can provide assistance for crowd control and cordoning off areas that constitute a threat to public safety.

15. Mines, U.S. Bureau of (Department of Interior)
(Reno) 784-5394

Can provide technical advice on chemicals used in mining. Also has a chemical laboratory in Reno that can perform analysis of unknown chemical substances.

16. National Poison Control Center
(800) 424-9300

Provides information and technical assistance relative to poisons.

17. National Response Center (NRC) U.S. Coast Guard
(800) 424-8802

Is the organization at the Federal level to which reports must be made of all hazardous materials spills that fall under the Comprehensive Environmental Response Compensation, and Liability Act, (CERCLA), or to Federal Water Pollution Control Act. NRC relays this information to the Federal Regional Coordinator.

18. Nevada Power Company (Las Vegas)
367-5161
367-5906 (dispatch)

Will provide technical advice and assistance on PCB.

19. Pesticide Hot Line
(800) 531-7790

Provides technical assistance and information relative to pesticides.

20. Poison Control Centers - Local

Humana Hospital Sunrise (Las Vegas)	782-4989
St. Mary's Hospital (Reno)	789-3013
University Medical Center (Las Vegas)	385-1277
Washoe Medical Center (Reno)	785-4129

RESPONSE SECTION (cont'd)

21. Public Service Commission
885-5134

Will coordinate response of utilities and common carriers to hazardous materials incidents. Handles accident investigations in follow-up to railroad accidents involving hazardous materials.

22. Sierra Chemical Company
(Reno) 786-7777
851-1863 (24 hr)
(Battle Mountain 635-2495
Toll Free 1-800-648-6310

Can provide technical assistance, chemical analysis and some response assistance for a wide range of hazardous materials including mining chemicals, industrial chemicals, and gasses.

23. Sierra Pacific Power Company (Reno)
789-4754

Will provide technical assistance on PCB.

24. Southern Pacific Railroad (Dispatcher, Roseville, CA.)
(916) 781-5151 or 5157
Union Pacific Railroad (Las Vegas/Southern Nevada)
384-0866 (Las Vegas)
(801) 359-7505 (Salt Lake City)

Will provide emergency response teams to handle hazardous materials rail incidents.

25. Transportation, Nevada Department of
885-5440

Is responsible for providing assistance to Highway Patrol for traffic control, and assistance to appropriate authorities with clean-up and disposal of accident debris in instances where no other means of clean-up is available.

RESPONSE SUPPORT (cont'd)

IV. HAZARDOUS MATERIALS INCIDENTS - RESPONSE SUPPORT

B. EXPLOSIVES/FLAMMABLES

This category of hazardous materials can be both unpredictable and volatile. Should explosion or BLEVE threaten, public safety is the obvious priority. Evacuation should be implemented as needed and entry to the area denied.

Property protection or explosion/BLEVE suppression should be considered only when clearly feasible and not a threat to human life.

When an explosion or BLEVE occurs, the two major priorities are to care for any injured and to prevent the spread of any fire. Early contact should be established with the Bureau of Explosives, CHEMTREC, and the shipper for information and assistance.

Explosives are chemical compounds, mixtures, or devices, the primary purpose of which is to function by explosion. Primary hazards are blast overpressure/shock waves, fragment scattering, and fire.

Class A Explosives present a hazard through detonation. Sensitive to heat and shock. Examples are dynamite, TNT, black powder.

Class B Explosives function in general by rapid combustion rather than detonation. A fire once started in these materials is virtually impossible to extinguish until the material has been consumed. Examples are display fireworks and rocket motors.

Class C Explosives contain restricted quantities of either Class A or Class B explosives or both, but present a minimum hazard. Examples are explosive rivets, detonating fuses, and common fireworks.

Blasting Agents function by explosion. In Nevada these agents are used primarily by mining and agricultural industries.

Flammable Liquid is any liquid with a flash point below 100°F (37°C). These are potentially corrosive, toxic, and thermally unstable. Hazards could include fire, explosion, or BLEVE. Examples are gasoline, butane, hydrogen, and sulfur dioxide.

Flammable Solid is any solid material which is liable to cause fire through friction, heat, or exposure to air (oxygen) or water. They are potentially corrosive and toxic, and have the potential for both fire and explosion. Examples are phosphorus, sodium, and lithium metal.

RESPONSE SECTION (cont'd)

Flammable Gas is any compressed gas capable of forming ignitable mixtures with air. Often ignited immediately following a break of their container. BLEVE and fire potential. Examples are butane, propane, and acetylene.

Non-Flammable Gas will not burn but may support combustion. Examples are anhydrous ammonia and chlorine.

Oxidizing Materials yield oxygen readily and can stimulate combustion of normally non-flammable materials. They are sensitive to heat shock and friction and can react spontaneously with organic matter. Examples are sodium nitrate, lithium peroxide, and potassium chlorate.

The Nevada Division of Emergency Management will coordinate response support and reporting requirements as needed. Agencies/organizations that can provide support assistance for this category of hazardous materials follow:

1. C P National
565-8941 (24 hr)

Has ability to respond to their own gas line incidents. May be able to provide mutual aid to other gas utilities.

2. CHEMTREC
(800) 424-9300 (24 hr)

Can provide immediate advice for those handling explosive hazardous materials emergencies; also will contact the shipper of the explosive materials involved for more detailed assistance and appropriate follow-up.

3. Emergency Management, Nevada Division of
885-4240 (work days)
885-5300 (24 hr)

Provides 24 hour point of coordination for response support, reporting requirements, follow-up, and recovery efforts. Will work with the Governor's Office and the Federal Emergency Management Agency if emergency declaration is necessary.

4. Emergency Medical Services, Nevada Division of Health
885-3065

Can coordinate emergency medical technicians and ambulance services in support of accident situations.

RESPONSE SECTION (cont'd)

5. Environmental Protection Agency, Federal
(415) 974-8131

Will provide information and technical assistance. Will also provide response teams for on-site assistance when the magnitude of the event so warrants.
6. Environmental Protection, State Division of
885-4670

Provides technical advice and supervision for the disposal of hazardous waste. Provides consultation regarding the containment and disposal of industrial/hazardous material.
7. Explosives, Bureau of (Association of American Railroads)
(202) 639-2222
(202) 639-5550 (24 hr)

Can provide technical assistance on explosives and BLEVEs.
8. Forestry, Nevada Division of
885-4350

Can provide response assistance to combat fire resulting from explosions.
9. Health, Nevada Division of
885-4475

Provides medical advice regarding hazardous materials. Can also issue public statements and warnings.
10. Highway Patrol, Nevada Division of
885-5300

Is the primary enforcement agency for laws and regulations pertaining to the highway transportation of hazardous materials including explosives and flammables. This is the State agency that is ordinarily first on scene. Will assess situation as needed, provide traffic control and assistance as situation and capabilities allow. Has excellent state-wide communications capability and will provide communications support as needed.
11. Industrial Insurance System, Nevada State
885-5245

Has safety specialists and industrial hygienists located in Reno and Las Vegas for state-wide consultation in emergency situations.

RESPONSE SECTION (cont'd)

12. Industrial Relations, Department of
885-3032

Provides safety and health consultant services for work-place surveillance; also can provide air monitoring.
13. Liquefied Petroleum Gas Board, Nevada
885-5134

Will provide technical assistance for events involving liquefied petroleum/gas.
14. Military, Department of
887-7200 (office)
887-7272 (night)

Can provide assistance for crowd control and cordoning off areas that constitute a threat to public safety. Will assist with evacuation, emergency shelter, and feeding, if necessary.
15. Mines, U.S. Bureau of (Department of Interior)
784-5394 (Reno)

Can provide technical advice on explosives and chemicals used in mining. Also has a chemical laboratory in Reno that can perform analysis of unknown chemical substances.
16. Nellis Air Force Base
643-2446

Can provide expertise, manpower, and equipment support in the event of emergencies involving explosions.
17. Public Service Commission
885-5134

Is responsible for handling all pipeline incidents involving jurisdictional utility facilities which transport natural gas, liquefied petroleum gas and liquefied natural gas. Will coordinate response of utilities and common carriers to hazardous materials incidents.
18. Sierra Chemical Company
786-7777 (work days)
851-1863 (24 hr)
635-2495 (Battle Mountain)
Toll Free 1-800-648-6310

Can provide technical assistance, chemical analysis and some response assistance for a wide range of hazardous materials including mining chemicals, industrial chemicals, gasses, and mining explosives.

RESPONSE SECTION (cont'd)

19. Southern Pacific Railroad (Dispatch Roseville, CA.)
(916) 781-5151 or 5157)
Union Pacific Railroad (Las Vegas/Southern Nevada)
384-0866 (Las Vegas)
Salt Lake City (801) 359-7505

Will provide emergency response teams to handle hazardous materials rail incidents.

20. Southwest Gas Corporation, (Northern Nevada)
882-0148 (24 hr)

Has ability to respond to their own gas line incidents. May be able to provide mutual aid to other gas utilities.

21. Southwest Gas Corporation, (Southern Nevada)
876-7221 (24 hr)

Has ability to respond to their own gas line incidents. May be able to provide mutual aid to other gas utilities.

22. Transportation, Nevada Department of
885-5440

Is responsible for providing assistance to Highway Patrol for traffic control, and assistance to appropriate authorities with clean-up and disposal of accident debris when no other source for clean-up is available.

23. The 34th Ordnance Detachment, Explosive Ordnance Disposal Team
Sierra Army Depot at Herlong, California
(916) 827-4408

Is responsible for providing demolition support to Northern Nevada.

24. The 259th Ordnance Detachment, Explosive Ordnance Disposal Team
Fort Irwin, California
(619) 386-4092

Is responsible for providing demolition support to Southern Nevada (Clark, Esmeralda, Nye, and Lincoln Counties).

RESPONSE SECTION (cont'd)

IV. C. OIL SPILLS

Oil is classified as a combustible liquid but listed separately in this Plan because of the high incidence of occurrence in Nevada.

Primary hazards are fire and contamination. Of particular concern is possible contamination of water supplies.

History of oil spills in Nevada indicates highest frequency on highways and railroad yards.

Important that origin of spill be identified and that immediate measures are taken to prevent further discharge.

Containment is first priority, particularly if waterway is threatened. Barriers, trenches, dikes, and often a truckload of dirt or sand are commonly used as methods for land containment. Booms, weirs, underflow dams and physical barriers are four means of oil containment on water. Skimming, absorbent, and holding ponds are other techniques.

The manufacturer/shipper, EPA (State and Federal), and the U.S. Coast Guard National Response Center are excellent sources for information and technical advice regarding oil spills. The Association of American Railroads will provide information and technical assistance for railroad incidents. Local health districts should be consulted if water supplies are contaminated or threatened.

The Nevada Division of Emergency Management will coordinate response support and reporting requirements as needed. Agencies/organizations that can provide support assistance for this category of hazardous materials follow:

1. Association of American Railroads
(202) 639-2222
(202) 639-5550 (24 hr)

Will provide information and technical assistance for railroad incidents.

2. Association of General Contractors
329-6116

Will provide referral service to obtain clean-up contractors.

3. CAL-NEVA Pipeline (Las Vegas)
644-3943

Will provide emergency response and assistance in the event of a pipeline rupture.

RESPONSE SECTION (cont'd)

4. CHEMTREC (Chemical Transportation Emergency Center)
(800) 424-9300 (24-hr)

Can provide immediate advice for those handling hazardous materials emergencies; also will contact the shipper of the hazardous materials involved for more detailed assistance and appropriate follow-up.

5. Emergency Management, Nevada Division of
885-4240 (work days)
885-5300 (24-hr)

Provides 24 hour point of coordination for response support, reporting requirements, follow-up, and recovery efforts.

6. Emergency Medical Services, Nevada Division of Health
885-3065

Can coordinate emergency medical technicians and ambulance services in support of accident situations.

7. Environmental Protection Agency - Federal Regional Office
(415) 974-8131 (24-hr)

Provides information and technical assistance. Will also provide field support when lives and/or property are threatened.

8. Environmental Protection Division, Nevada
885-4670

Hazardous Waste Program

Provides technical advice and supervision for the disposal of hazardous waste. Provides consultation regarding the containment and disposal of industrial/hazardous materials. Can also provide assistance with the analysis of unidentified hazardous materials.

9. Forestry, Nevada Division of
885-4350

Can provide response assistance to combat fire resulting from hazardous materials accidents.

10. Health, Nevada Division of
885-4475

Provides medical advice regarding hazardous materials. Can also issue public statements and warnings.

RESPONSE SECTION (cont'd)

11. Highway Patrol, Nevada Division of
885-5300

Is the primary enforcement agency for laws and regulations pertaining to the highway transportation of hazardous materials including explosives and flammables. This is the State agency that is ordinarily first on scene. Will assess situation as needed, provide traffic control and assistance as situation and capabilities allow. Has excellent state-wide communications capability and will provide communications support as needed.

12. Industrial Insurance System, Nevada State
885-5245

Has safety specialists and industrial hygienists located in Reno and Las Vegas for state-wide consultation in emergency situations.

13. Industrial Relations, Department of
885-3032

Provides safety and health consultant services for work-place surveillance; also can provide air monitoring.

14. National Response Center (NRC) - U.S. Coast Guard
(800) 424-8802

Is responsible for handling hazardous materials spills on navigable inland waterways.

15. Public Service Commission
885-5134

Coordinate response to pipeline incidents. Will also investigate railroad incidents.

16. Sierra Pacific Power Company (Reno)
789-4379

Will provide technical assistance for oil spills.

17. Southern Pacific Pipeline
(Reno) 358-6971
(Roseville) (916) 624-2431

Will provide emergency response and assistance in the event of a pipeline rupture.

RESPONSE SECTION (cont'd)

18. Southern Pacific Railroad (Dispatch, Roseville,CA.)
(916) 781-5151 or 5157)
Union Pacific Railroad (Las Vegas/Southern Nevada)
384-0866 (Las Vegas)
(801) 359-7505 (Salt Lake City)

Will provide emergency response teams to handle hazardous materials rail incidents.

19. Transportation, Nevada Department of
885-5440

Is responsible for providing assistance to Highway Patrol for traffic control, and assistance to appropriate authorities with clean-up and disposal if no other source is available.

RESPONSE SECTION (cont'd)

IV. D. RADIOLOGICAL

Radioactive material is any material, or combination of materials, that spontaneously emits ionizing radiation. Often further defined as having a specific activity greater than 0.002 microcuries per gram. Examples-plutonium, cobalt, uranium, radioactive iodine.

State Radiological Health Section at the Department of Human Resources has primary responsibility at State level for radiological safety and should be contacted immediately in the event of any radiological incident.

Major concerns are potential sublethal or lethal effects from exposure; also smoke, steam, or run-off water that may be contaminated as a result of an accident.

Until the extent of the hazard can be determined all unauthorized personnel should be kept away from any accident area involving radioactive materials.

Accurate monitoring to determine level of radioactivity is essential prior to any response action. Highway Patrol vehicles and most fire districts in Nevada have monitoring equipment.

Nevada Highway Patrol receives pre-notification of low-level radioactive waste shipments into Nevada; the State Radiological Health section receives pre-notification of high-level radioactive waste shipments.

The Beatty disposal site along Highway 95 and the Nevada Test Site at Mercury are the repositories for low-level radioactive waste in Nevada.

There are two points of contact to be made at the State level for radiological incidents - the State Radiological Health Section is primary and must always be notified immediately. The Nevada Division of Emergency Management will provide coordination support as needed. Agencies that can be of assistance follow:

1. Emergency Management, Nevada Division of

885-4240 (work days)
885-5300 (24 hr)

Provides 24 hour point of coordination for response support, reporting requirement, follow-up, and recovery efforts.

RESPONSE SECTION (cont'd)

2. Emergency Medical Services, Nevada Division of Health
885-3065

Can coordinate emergency medical technicians and ambulance services in support of accident situations.

3. Energy, U.S. Department of
(Nevada) 295-3343 (24 hr)

Is responsible for responding to the Nevada Test Site accidents and can provide response team assistance to the State or its jurisdictions for radiological incidents/accidents.

4. Environmental Protection Agency - Regional Office
(415) 974-8131 (24 hr)

Provides information and technical assistance. Will also provide field support when lives and/or property are threatened.

5. Environmental Monitoring Systems Laboratory - Las Vegas, Environmental
Protection Agency
798-2525
295-3343 (24 hr)

Responsible for responding to a release of radioactive material from the NTS that may be involved off site. EMSL also provides equipment and personnel in support of the DOE Radiological Assistance Team.

Can also provide radiological analysis. Requests for such analysis should be made through EPA, Region IX (#4 above).

6. Highway Patrol, Nevada Division of
885-5300

Receives pre-notification of low-level waste shipments and has statutory responsibility to police all primary and secondary highways in the State; investigates accidents, including radiological incidents, that occur on these highways. Highway Patrol vehicles are equipped with radiological survey instruments and dosimeters. Will assist with monitoring, traffic control, and emergency communications as needed.

RESPONSE SECTION (cont'd)

7. Military Department, Nevada
887-7200

Has some monitoring capability. Can assist with emergency transportation, evacuation, shelter, and mass feeding.

8. Public Service Commission (PSC)
885-5134

Is the regulatory agency for transportation of radiological waste in Nevada.

9. Radiological Health Office, Nevada Health Division
885-5394

Has primary responsibility at State level for radioactive incidents and associated public safety. Receives pre-notification of high level waste shipments and provides safety inspections for waste shipments into Beatty.

10. Southern Pacific Railroad (Dispatch, Roseville, CA.)
(916) 781-5151 or 5157)
Union Pacific Railroad (Las Vegas/Southern Nevada)
384-0866 (Las Vegas)
(801) 359-7505 (Salt Lake City)

Will provide emergency response teams to handle rail incidents involving radiological materials.

11. Transportation, Nevada Department of
885-5440

Is responsible for providing assistance to Highway Patrol for traffic control, and assistance to appropriate authorities with clean-up and disposal of accident debris if no other source of assistance is available.

RESPONSE SUPPORT (cont'd)

V. HAZARDOUS MATERIALS INCIDENTS - EVACUATION

A. THE EVACUATION DECISION

Evacuation decisions are, under most circumstances, the responsibility of local officials. In an emergency situation, when time is of the essence, the Incident Commander--usually the sheriff, police, or fire chief--makes this decision. The ultimate responsibility resides with the chief executives for the respective jurisdictions--commissioners, mayors, city councils/supervisors--depending upon the type of government and its ordinance provisions.

Under conditions of a declared state emergency, the Governor has the legal prerogative under NRS 414.080 to order an evacuation if lives are in jeopardy.

B. EVACUATION GUIDELINES

Evacuation guidelines--when to evacuate, recommended evacuation distances, and related information for hazardous materials incidents--can be obtained from a number of sources, among them:

1. CHEMTREC
2. Department of Transportation Emergency Response Guidebook
3. Manufacturer
4. Environmental Protection Agency

C. EVACUATION SUPPORT

State support to assist with evacuation can be obtained, if needed, by contacting the Nevada Division of Emergency Management.

The American Red Cross and The Nevada National Guard are important resources for assistance with shelters, emergency transportation (National Guard), mass feeding, and limited medical care (Red Cross).

The Department of Education can assist with arrangements to provide schools for shelter; The Department of Human Resources will assist with medical and sanitation measures; traffic control and law enforcement assistance can be provided by Highway Patrol.

RESPONSE SUPPORT (cont'd)

VI. HAZARDOUS MATERIALS INCIDENTS - CLEAN-UP AND DISPOSAL

A. PRIMARY RESPONSIBILITY

Under Federal Regulations and provisions of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) the primary responsibility for the control of hazardous materials resides with the owner, user, shipping agent, carrier, or other individuals in whose custody the material has been placed.

Every effort should be made to contact the responsible party for costs reimbursement associated with clean-up and disposal if such party has not satisfied this obligation.

There are both Federal and State penalties that can be levied for refusal of the responsible party to satisfy the obligation for clean-up and disposal. Such violations should be reported to the Environmental Protection Agency at the federal level, and the Division of Environmental Protection at the state level.

B. STATE ASSISTANCE

In given situations where local jurisdictions do not have the necessary resources or when demands exceed local resources, the State can provide technical assistance and may be able to provide some financial assistance for clean-up. The State Division of Environmental Protection should be contacted in these instances.

C. FEDERAL ASSISTANCE

Federal assistance for clean-up and disposal is often available under emergency conditions that threaten life, human health, or the environment. The Environmental Protection Agency and the U.S. Coast Guard have emergency response programs keyed to clean-up as well as response. The Department of Energy's Nevada Operations Office has an emergency response program for clean-up of radiological spills resulting from activities associated with the NTS including any related shipping incident in the public domain.

THE SUPERFUND which is authorized under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and is accessed through the Region IX EPA Office, is financed by a trust fund. The fund can be used to provide both emergency and long-term clean-up of releases of hazardous substances and inactive waste sites.

Non-emergency clean-up ordinarily requires an on-site evaluation by EPA before recommendations or action can be taken.

RESPONSE SECTION (cont'd)

D. PRIVATE SECTOR ASSISTANCE

Many private contractors have hazardous materials clean-up capability. The Association of General Contractors here in Nevada can provide referral service for such contractors. Additionally, both the State and Federal Environmental offices can provide referrals of those contractors with which they have some experience.

E. DISPOSAL

The Beatty Disposal Site managed by U.S. Ecology provides land fill for solid hazardous wastes, PCBs, and low-level radioactive waste. Additionally, it acts as the trans-shipment point for some hazardous liquid wastes which are then treated and shipped out of State.

Many of Nevada's city/county land fills are used for low risk hazardous wastes. Permission to use those land fills for such purpose ordinarily needs to be obtained from the jurisdiction's health departments or land fill operators.

At the State level, the Division of Environmental Protection has statutory oversight of hazardous waste disposal and should be consulted for advice and direction concerning such disposal.

There are many hazardous materials that need to be transported out of state for disposal. Advice concerning out of state dump sites and transportation arrangements should be obtained from the State Environmental Protection Division. (885-4670)

APPENDIX G

Letter, dated May 28, 1986, to hazardous materials management committee on chemical, toxic and low-level radioactive wastes, from H. LaVerne Rosse, P.E., program director, waste management section, division of environmental protection, department of conservation and natural resources, regarding the preparation of the "State Hazardous Waste Plan".

APPENDIX G

RICHARD H. BRYAN
Governor



STATE OF NEVADA
DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES

DIVISION OF ENVIRONMENTAL PROTECTION

Capitol Complex

Carson City, Nevada 89710

(702) 885-4670

May 28, 1986

Hazardous Materials Management Committee
Legislative Building
Capitol Complex
Carson City, Nevada 89710

Attention: Linda Gardner

Gentlemen:

The Division of Environmental Protection is preparing a State Hazardous Waste Plan for completion in August. The Plan will include recommendations for legislation, regulations and policies to assure the proper management of hazardous waste. The reference to hazardous waste does not include radioactive materials or wastes nor hazardous materials. An example to the wastes the Plan includes are waste solvents. Not solvents that have not been used but solvents that are contaminated and no longer usable.

Part of the process to develop the Plan involved conducting ten public workshops to give Nevadans an opportunity to express their desires in regard to Nevada's role in the management of hazardous waste, and their view of what the issues are and what the solutions might be. The workshops were held in Las Vegas (13), Caliente (78), Tonopah (15), Ely (37), Elko (30), Winnemucca (7), Fallon (6), Carson City (12), Reno (47) and Yerington (44). The numbers were the attendance.

While the workshop discussions principally dealt with hazardous waste, the major issue of public concern involved the transportation of hazardous materials, not only wastes. The public expressed the need for more regulation of trucking, including training of drivers, more regulation and inspection of vehicles, routing, inspection stations, and fees for road repair, emergency response, and regulatory personnel.

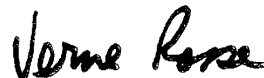
The hazardous waste management planning activities are indicating that for Nevada to be self sufficient, facility needs include transfer facilities, refineries for waste oils, treatment facilities, incinerator capability, recycling facilities and land disposal for residuals. Additional regulatory resources are needed to assure proper management at the above facilities and safe operation of transportation activities. Fees can be established for permits and disposal

Hazardous Materials Management Committee
May 28, 1986
Page -2-

activities to support waste management activities. To support management activities regarding hazardous materials which are not wastes, other funding mechanism will need to be developed.

I appreciate this opportunity to provide this committee with comments, and am available to respond to any questions you may have.

Sincerely,



H. LaVerne Rosse, P.E.
Program Director
Waste Management Section

HLR:kh
cc: L.H. Dodgion
Roland Westergard

APPENDIX H

Letter, dated March 18, 1986, to James W. Schofield, chairman of the hazardous materials management committee on chemical, toxic and low-level radioactive wastes, from Jerome F. Griepentrog, director, department of human resources, regarding the Beatty, Nevada, low-level radioactive waste disposal site.



DEPARTMENT OF HUMAN RESOURCES

DIRECTOR'S OFFICE

Room 600, Kinkead Building

505 E. King Street

Carson City, Nevada 89710

Telephone (702) 885-4400

March 18, 1986

The Honorable James Schofield
1740 Howard Avenue
Las Vegas, NV 89104

Dear Assemblyman Schofield:

As requested, please find below information to update your Hazardous Materials Management Committee on Chemical Toxic and Low-Level Radioactive Wastes on activities occurring within the Department of Human Resources relative to the Beatty low level radioactive waste disposal site.

Much of the current activity is directly related to changes necessitated as the result of congressional action (i.e., the Low Level Nuclear Radioactive Waste Policy Amendments Act of 1985). That Act has established specified milestones which other states must meet in order to continue access to the Beatty site from 1986 to 1992. The Act further provides that states which fail to meet these milestones are subject to increased penalties on waste disposed and loss of access to the disposal sites. In turn, the Act provides that the three sited states (Nevada, Washington and South Carolina) will maintain their existing sites through 1992. However, each site has the authority to impose a ceiling on the amount of waste to be accepted into the respective site. The ceiling for Nevada has been established at 1.4 million cubic feet over the seven-year period.

In addition to the above requirements, the three sited states have been mandated to develop a networked, computerized data collection system which will track the disposal patterns of the waste generators to insure compliance with allocations specified in the Act. Further, the three sited states are to develop criteria for determining nonsited state compliance with the above-referenced milestones. These milestones require that states take specified actions, by dates certain, toward the establishment of their own disposal sites. In addition, the Act provides that the sited states may impose an escalating surcharge on all waste disposed between 1986 and 1992.

In response to the above requirements, Nevada is actively involved in meeting with the other two sited states to develop a coordinated approach to implementation of the federal act. Procedures have been developed to monitor the amount of waste coming into each of the three sites, and we are in the

process of designing the data system essential to the required monitoring activities. Work program changes have been developed and submitted to the Governor's Budget Office to utilize some of the funding derived from the surcharge to purchase the necessary computer hardware and software and the staff person to operate the data system. That request should be before the Interim Finance Committee prior to the end of the current fiscal year. Further, Nevada has imposed a \$10 surcharge on all waste brought to Beatty for disposal, effective January 16, 1986. It is projected that over the seven-year period, approximately \$25 million in revenues will be generated.

The Department of Human Resources is also actively involved in the development of criteria for waste generators wishing to utilize the Beatty site. The primary outcome to be achieved through the developed criteria is to minimize the intrusion of waste shippers on the major metropolitan areas of this state.

The federal Act also provided for ratification of the Rocky Mountain Low Level Waste Compact. This legislation was passed by the involved states (Nevada, Colorado, New Mexico and Wyoming) several sessions ago. However, implementation of that compact was not possible until Congress provided formal ratification. The primary objective of the compact is to facilitate development of a new disposal facility within the four-state region. Under provisions contained in the compact, the state of Colorado must serve as the host state for the next site. A complicating factor relative to site development within the Rocky Mountain Compact is the state of Arizona. That state has the option of joining our compact, but has not yet exercised that option. Should Arizona join the Rocky Mountain Compact, it would be required to develop the next low level waste disposal site. As such, this could render the current planning process within the state of Colorado invalid. Unfortunately, the previous law did not impose any time lines for Arizona to make its decision.

Subsequent to congressional ratification of the compact, Nevada's interaction with that compact has focused on two major areas:

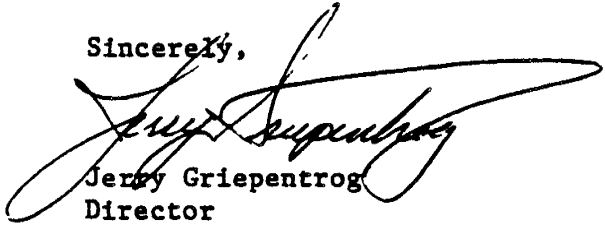
1. A joint approval process has been established for all would-be shippers to the Beatty site. Under this joint approval approach, Nevada retains veto power over proposed shipments. However, it also provides an additional safeguard to insure that generators utilizing the Beatty site are carefully screened.
2. In addition, the compact is exercising control over the location of out-of-region waste processors relocating into this region in order to gain access to the Beatty site without payment of the otherwise required surcharge. This is particularly important for Nevada, given the low amount of waste generated in the region (less than 10,000 cubic feet per year). The Rocky Mountain region is viewed as an ideal region for the establishment of waste processing facilities because of the availability of disposal space at the Beatty site.

I trust the above information has provided you a satisfactory update relative to the disposal of low level nuclear waste in this state. If you have need of

Assemblyman Schofield
March 18, 1986
Page 3

additional information or clarification, please so advise this office. In addition, I would indicate my availability to your committee, should you desire a more formal presentation of information.

Sincerely,

A large, stylized handwritten signature in black ink, appearing to read "Jerry Griepentrog". The signature is written over the typed name and title.

Jerry Griepentrog
Director

cc: Linda Gardner
Research Analyst, LCB

APPENDIX I

Chart prepared by staff of the research division, legislative counsel bureau, entitled "State And Federal Statutes And Regulations Regarding Hazardous Materials (Including Low-Level Radioactive And Nonradioactive Wastes) - Revised".

STATE AND FEDERAL STATUTES AND REGULATIONS REGARDING HAZARDOUS MATERIALS (INCLUDING LOW-LEVEL RADIOACTIVE AND NONRADIOACTIVE WASTES)

R E V I S E D

Classifications

Handling/Packaging

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HAZARDOUS MATERIALS	HAZARDOUS WASTE	RADIOACTIVE MATERIALS AND WASTE
<p><u>Hazardous Materials Table:</u> 49 CFR 172.101*</p>	<p><u>Defined:</u> NRS 459.430 <u>Types Subject to Regulation:</u> NRS 459.465</p>	<p><u>Classification of Radioactive Waste:</u> NAC 459.8265</p>
<p><u>Shipper's Responsibility:</u> 49 CFR 173.22*</p> <p><u>Packaging:</u> 49 CFR 173.50-173.1200*</p> <p><u>Quantities, Container Requirements, Dose Rate:</u> NRS 459.221</p> <p><u>Marking:</u></p> <ol style="list-style-type: none"> <u>Shippers:</u> 49 CFR 172.300* <u>Manufacturers:</u> 49 CFR 178* <p><u>Placarding:</u> 49 CFR 172.500-172.550*</p> <p><u>Labeling:</u></p> <ol style="list-style-type: none"> <u>Shippers:</u> 49 CFR 172.400, 49 CFR 172.430* <u>Type:</u> 49 CFR 172.101 (Hazardous Materials Table)* <p><u>Shipping Papers:</u> 49 CFR 172.202-172.203* NRS 459.221</p> <p><u>Manifest:</u> 40 CFR 262.20 NRS 459.590</p>	<p><u>Handling and Packaging Regulations:</u> NRS 459.500</p> <p><u>Generators of Hazardous Waste:</u> NAC 444.8635</p> <p><u>Identification Number Required:</u> NAC 444.8640</p> <p><u>Packaging, Labeling, Marking and Placarding:</u> NAC 444.8645</p>	<p><u>Enforcement of Handling and Packaging-DHW&PS, NHP, PSCN:</u> NRS 459.250</p> <p><u>Licensee's Responsibilities:</u></p> <ol style="list-style-type: none"> <u>Radioactive Materials:</u> NAC 459.314 <u>Radioactive Waste:</u> NAC 459.910(A)(2) <p><u>Packaging of Radioactive Waste:</u> NAC 459.830, NAC 459.900(2)</p> <p><u>Contents, Restrictions in Packaging:</u> NAC 459.830, NAC 459.8305</p> <p><u>Labeling of Containers:</u> NAC 459.825</p> <p><u>Required Procedures for Transfer:</u> NAC 459.8235</p> <p><u>Shipping Manifest Requirements:</u> NAC 459.823, NAC 459.824, NAC 459.8245</p>

STATE AND FEDERAL STATUTES AND REGULATIONS REGARDING HAZARDOUS MATERIALS (INCLUDING LOW-LEVEL RADIOACTIVE AND NONRADIOACTIVE WASTES)

R E V I S E D

Handling/Packaging (cont'd)

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Transportation/Routing

HAZARDOUS MATERIALS	HAZARDOUS WASTE	RADIOACTIVE MATERIALS AND WASTE
<p><u>Carrier Responsibilities:</u></p> <ol style="list-style-type: none"> <u>Rail:</u> 49 CFR 174* <u>Aircraft:</u> 49 CFR 175* <u>Vessels:</u> 49 CFR 176* <u>Highway:</u> 49 CFR 177* <p><u>Container Manufacturer Responsibilities:</u> 49 CFR 172, 178, 179*</p>		
<p><u>Department of Transportation Regulations:</u> NAC 706.377-706.395</p> <p><u>Motor Carriers:</u></p> <ol style="list-style-type: none"> <u>Safety Requirements:</u> 49 CFR 390-96* <u>Parking and Driving Regulations:</u> 49 CFR 397* <u>Operation of Motor Vehicle:</u> 49 CFR 392, 397* <u>Vehicle Requirements:</u> 49 CFR 393, 396* <u>Railway Cars:</u> 49 CFR 179* 	<p><u>Regulations:</u> NRS 459.500 <u>Unlawful Transportation:</u> NRS 459.590</p> <p><u>Manifest Required:</u> NAC 444.8650-444.444.860</p> <p><u>Transporter's Requirements:</u> NAC 444.8705-444.8725</p> <p><u>Importers and Exporters:</u> NAC 444.8727</p>	<p><u>State Permit to Transport:</u> NRS 706.441</p> <p><u>Shipping Violations:</u> NRS 459.221</p> <p><u>Alternate Routing:</u></p> <ol style="list-style-type: none"> <u>NDOT:</u> NRS 408.125(4) <u>Local Authorities:</u> NRS 484.779(3)(b) <p><u>Enforcement (DHW&S, NHP, PSCN):</u> NRS 459.250</p>

STATE AND FEDERAL STATUTES AND REGULATIONS REGARDING HAZARDOUS MATERIALS (INCLUDING LOW-LEVEL RADIOACTIVE AND NONRADIOACTIVE WASTES)

R E V I S E D

	HAZARDOUS MATERIALS	HAZARDOUS WASTE	RADIOACTIVE MATERIALS AND WASTE
<u>Transportation/Routing (cont'd)</u>	<p><u>Alternate Routing:</u></p> <ol style="list-style-type: none"> 1. <u>NDOT:</u> NRS 408.125(4) 2. <u>Local Authorities:</u> NRS 484.779(3)(b) 		<p><u>USDOT:</u></p> <ol style="list-style-type: none"> 1. <u>Highway Carriers:</u> 49 CFR 350-399 2. <u>Rail Carriers:</u> 49 CFR 200-268 <p><u>NRC:</u> 10 CFR 71, 73, 75</p> <p><u>FAA - Air Carriers:</u> 14 CFR 121, 135</p> <p><u>USCG - Water Carriers:</u> 46 CFR 146-148, 33 CFR 126</p> <p><u>Investigation Required If Waste Not Received:</u> NAC 459.8255</p> <p><u>48-Hour Notice Required:</u> NRS 706.441</p> <p><u>NRC:</u> Defines Circumstances: 10 CFR 71.5a, 73.27</p> <p><u>Railroads Must Obtain Permit to Transport Radioactive Materials:</u> PSCN G.O. 52 (1986)</p> <p>Clark County Ordinance No. 960 (1986)</p> <p>Las Vegas Municipal Code Ch. 9.36 (1986)</p> <p>City of North Las Vegas Resolution 1362 (1985)</p>
<u>Prenotification</u>	<p>Clark County Ordinance No. 960 (1986)</p> <p>Las Vegas Municipal Code Ch. 9.36 (1986)</p> <p>City of North Las Vegas Resolution 1362 (1985)</p>	<p>Clark County Ordinance No. 960 (1986)</p> <p>Las Vegas Municipal Code Ch. 9.36 (1986)</p> <p>City of North Las Vegas Resolution 1362 (1985)</p>	<p>Clark County Ordinance No. 960 (1986)</p> <p>Las Vegas Municipal Code Ch. 9.36 (1986)</p> <p>City of North Las Vegas Resolution 1362 (1985)</p>

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STATE AND FEDERAL STATUTES AND REGULATIONS REGARDING HAZARDOUS MATERIALS (INCLUDING LOW-LEVEL RADIOACTIVE AND NONRADIOACTIVE WASTES)

R E V I S E D

	<u>HAZARDOUS MATERIALS</u>	<u>HAZARDOUS WASTE</u>	<u>RADIOACTIVE MATERIALS AND WASTE</u>
<u>Inspection</u> 250		<p><u>Inspection by State Environmental Commission, State Department of Conservation and Natural Resources:</u> NRS 459.560</p> <p><u>Inspection by Facility Operator:</u> NAC 444.8885, NAC 444.9090</p>	<p><u>Inspection by DWAPS, NRP, PSCN (transportation and handling):</u> NRS 459.250</p> <p><u>Inspection by health division, department of human resources (private or public property):</u> NRS 459.050(1)</p> <p><u>Findings Confidential:</u> NRS 459.050(3)</p> <p><u>Agreement With Federal Government:</u> NRS 459.090</p> <p><u>Inspections:</u> NAC 459.920</p>
<u>Storage/Disposal</u>		<p><u>Definition "Storage":</u> NRS 459.450</p> <p><u>Definition "Disposal":</u> NRS 459.425</p> <p><u>State Environment Commission Regulations:</u></p> <ol style="list-style-type: none"> 1. <u>Solid Waste Disposal:</u> NAC 444.570-444.758 2. <u>Hazardous Waste Disposal:</u> NAC 444.8500- NAC 444.9335 <p><u>Regulations:</u> NRS 459.500</p>	<p><u>Permits Prohibited-Certain Cases:</u> NRS 445.224</p> <p><u>Unlawful to Discharge into Water:</u> NRS 445.254</p> <p><u>Permit to Discharge Required:</u> NRS 445.287</p> <p><u>License to Use Disposal Area:</u> NRS 459.221</p> <p><u>Fees:</u> NRS 459.211</p> <p><u>Trust Fund-Care of Sites:</u> NRS 459.235</p>

STATE AND FEDERAL STATUTES AND REGULATIONS REGARDING HAZARDOUS MATERIALS (INCLUDING LOW-LEVEL RADIOACTIVE AND NONRADIOACTIVE WASTES)

R E V I S E D

Storage/Disposal (cont'd)

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HAZARDOUS MATERIALS	HAZARDOUS WASTE	RADIOACTIVE MATERIALS AND WASTE
	<p><u>Agreement to Provide State Land:</u> NRS 459.505</p> <p><u>Fees:</u> NRS 459.510</p> <p><u>Permit Required:</u> NRS 459.515, NAC 444.8730</p> <p><u>Operators of Facilities:</u> NAC 444.8850-444.8930</p> <p><u>Regulations Governing Permits:</u> NRS 459.520</p> <p><u>Financial Responsibility Required of Owner:</u> NRS 459.525</p> <p><u>Acts Constituting Health Hazard:</u> NRS 459.565</p> <p><u>Order to Prevent Health Hazard:</u> NRS 459.570</p> <p><u>Underground Disposal:</u> NRS 445.287</p> <p><u>Duties of Operator Upon Receipt of Waste:</u> NAC 444.8960-444.8965, NAC 444.8985</p> <p><u>Protecting Ground Water:</u> NAC 444.8995-444.9000</p> <p><u>Closing a Facility:</u> NAC 444.9005-444.9055</p> <p><u>Liability Insurance:</u> NAC 444.9060</p>	<p><u>Duties of Disposal Site Operator:</u> NAC 459.826</p> <p><u>Radioactive Materials:</u></p> <ol style="list-style-type: none"> 1. Storage Rooms Must Have Warning Labels: NAC 459.342 2. Areas of High Radiation Must Be Posted: NAC 459.346 3. Containers Must Be Labeled: NAC 459.350 4. Storage Must Be Secure: NAC 459.356 5. Disposal Limitations: NAC 459.360

STATE AND FEDERAL STATUTES AND REGULATIONS REGARDING HAZARDOUS MATERIALS (INCLUDING LOW-LEVEL RADIOACTIVE AND NONRADIOACTIVE WASTES)

R E V I S E D

	<u>HAZARDOUS MATERIALS</u>	<u>HAZARDOUS WASTE</u>	<u>RADIOACTIVE MATERIALS AND WASTE</u>
<u>Storage/Disposal (cont'd)</u>		<u>Bankruptcy:</u> NAC 444.9065 <u>Containers:</u> NAC 444.9075-444.9110 <u>Tanks:</u> NAC 444.9115-444.9135 <u>Treatment & Management of Waste in Soil:</u> NAC 444.9210 <u>Open Burning & Incineration:</u> NAC 444.9290-444.9295 <u>Polychlorinated Biphenyl:</u> NAC 444.940-444.9555	
<u>Records</u>		<u>Requirement for Licenses:</u> NRS 459.550 <u>Operating Records:</u> NAC 444.8970-444.8980 <u>Documents of Financial Assurance:</u> NAC 444.9070	<u>Records to be Kept by One Acquiring, Possessing or Using:</u> NRS 459.060 <u>Licensing and Registration:</u> NRS 459.201 <u>Records of Disposal Required:</u> NAC 459.364(3)(b), NAC 459.826(2), NAC 459.8235(2)(g), NAC 459.824(5), NAC 459.8245(8)
<u>Emergency Management/Cleanup</u>		<u>Cost of Cleaning, Hazardous Waste Funds:</u> NRS 459.530, 459.535 <u>Emergency Coordinator:</u> NAC 444.8935-444.8955	<u>Emergency Regulations:</u> NRS 459.120 <u>Private Carrier - Duty to Notify:</u> 49 CFR 171.15-17, 174.45, 175.45, 176.48, 394.3 and 394.9

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STATE AND FEDERAL STATUTES AND REGULATIONS REGARDING HAZARDOUS MATERIALS (INCLUDING LOW-LEVEL RADIOACTIVE AND NONRADIOACTIVE WASTES)

R E V I S E D

	HAZARDOUS MATERIALS	HAZARDOUS WASTE	RADIOACTIVE MATERIALS AND WASTE
<u>Emergency Management/Cleanup</u>		<u>Report of Fires, Contamination, Closures:</u> NAC 444.8980	<u>Private Shipper - Duty to Inform Carrier:</u> 49 CFR 172.202-.203 <u>Carriers' Responsibility to Cleanup:</u> 49 U.S.C. 1, et seq. <u>USDOT - In Emergency, Duty to Give Information and Advice:</u> P.L. 93-633, § 109(d)(2)
<u>Enforcement/Penalties</u>		<u>Delegate Enforcement</u> (State Department of Conservation and Natural Resources): NRS 459.480 <u>Subpoena Power:</u> NRS 459.575 <u>Injunctive Relief:</u> NRS 459.580 <u>Civil Penalties; Damages:</u> NRS 459.585 <u>False Statements; Tampering:</u> NRS 459.595 <u>Operating Without Permit:</u> NRS 459.600 <u>Fees, Penalties; Transportation:</u> NRS 459.500	<u>Hearing for License Suspension:</u> NRS 459.100 <u>Disciplinary Action:</u> NRS 459.105 <u>Deposit of Fines:</u> NRS 459.235 <u>Enforcement (DMVAPS, NHP, PSCN):</u> NRS 459.250 <u>Impounding:</u> NRS 459.260 <u>Injunctive Relief:</u> NRS 459.270 <u>Violations Concerning Shipping:</u> 1. <u>Penalties:</u> NRS 459.221

STATE AND FEDERAL STATUTES AND REGULATIONS REGARDING HAZARDOUS MATERIALS (INCLUDING LOW-LEVEL RADIOACTIVE AND NONRADIOACTIVE WASTES)

R E V I S E D

	HAZARDOUS MATERIALS	HAZARDOUS WASTE	RADIOACTIVE MATERIALS AND WASTE
<u>Enforcement Penalties</u>		<u>Fees, Penalties; Use of Disposal Area:</u> NRS 459.510 <u>Suspend, Revoke Land Use Permit:</u> NRS 459.520	2. <u>Delinquent Fees:</u> NRS 459.211 3. <u>Removal by Employee:</u> NRS 459.280 4. <u>Misdemeanor Penalty:</u> NRS 459.290 5. <u>Suspension of License:</u> NAC 459.885 <u>Insurance for Damages:</u> 42 U.S.C. 2014 and 2210 (Price-Anderson Act)
<u>Regulatory Agency</u>		<u>State Conservation and Natural Resources:</u> NRS 459.470, 459.475 <u>General Requirements:</u> NRS 459.490 <u>Limitation on Regulation:</u> NRS 459.495 <u>Local Regulation:</u> NRS 459.480, 459.520	<u>Health Division:</u> NRS 459.020, NRS 459.030
<u>Federal Government/Preemption</u>			<u>Agreement with State:</u> NRS 459.080

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REGULATIONS REGARDING HAZARDOUS CHEMICAL AND TOXIC WASTES AND LOW-LEVEL RADIOACTIVE WASTES

CFR	Code of Federal Regulations	
DMV&PS	Department of Motor Vehicles and Public Safety	*DMV&PS adopted 49 CFR 170-178
FAA	Federal Aviation Administration	DMV&PS adopted 49 CFR 390-397
NAC	Nevada Administrative Code	Division of Health Adopted 49 CFR 100-177
NDOT	Nevada Department of Transportation	
NHP	Nevada Highway Patrol	
NRC	United States Nuclear Regulatory Commission	
NRS	Nevada Revised Statutes	
PL	Public Law	
USC	United States Code	
USCG	United States Coast Guard	
USDOT	United States Department of Transportation	

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APPENDIX J

Resolution No. 13-85, "Requesting Modification Of The State Moratorium On Processing Of Low-Level Hazardous Waste," and Resolution No. 14-85, "Endorsing More Stringent Regulations For The Disposal Of Hazardous Materials In The State of Nevada," which were adopted by the Nevada Association of Counties and submitted to the committee on April 4, 1986, for consideration.



NEVADA ASSOCIATION OF COUNTIES

308 NORTH CURRY STREET, SUITE 205 • CARSON CITY, NEVADA 89701
(702) 883-7863

APPENDIX J



RESOLUTION NO. 13-85

REQUESTING MODIFICATION OF THE STATE MORATORIUM

ON PROCESSING OF LOW-LEVEL HAZARDOUS WASTE

WHEREAS, effective August 17, 1985, the State of Nevada has imposed a one-year moratorium on the issuance of all permits allowing private enterprise to operate hazardous waste processing facilities within the State of Nevada; and

WHEREAS, the Nevada Association of Counties recognizes and supports the need for the State to carefully consider the impacts of the disposal and processing of hazardous wastes, especially those listed as toxic by nature; and

WHEREAS, there is a need to stop the dumping or disposal in landfills of waste that will cause eventual harm to the environment; and

WHEREAS, the moratorium now in place prevents the issuance of permits to all facilities that dispose of waste regardless of type or class, but places no restrictions on industry within Nevada that generate hazardous wastes; and

WHEREAS, processing of appropriate classes of hazardous waste by incineration under properly controlled conditions causes no environmental harm when Federal Regulations now in place govern this process; and

WHEREAS, this moratorium is equally restrictive in the permitting process to sites that would handle only non-toxic, non-radioactive, low hazard wastes; and

WHEREAS, there are respected companies with demonstrated records of responsible performance and high regard for public safety and the environment which have shown intent to locate waste incinerator facilities within Nevada to dispose of non-toxic, non-radioactive low hazard wastes; and

WHEREAS, this process would serve to preserve our environment by facilitating disposal of Nevada's non-toxic hazardous wastes in a safe manner; and

RESOLUTION NO. 13-85

REQUESTING MODIFICATION OF THE STATE MORATORIUM
ON PROCESSING OF LOW-LEVEL HAZARDOUS WASTE

WHEREAS, the moratorium on permit applications for companies utilizing this process may compromise efforts to enhance the integrity of existing landfill disposal sites and delay the economic and environmental benefits such facilities offer Nevada counties;

NOW, THEREFORE, BE IT RESOLVED, that the general membership of the Nevada Association of Counties acting at the 1985 Annual Conference respectfully urges the Honorable Richard Bryan, Governor of Nevada, to:

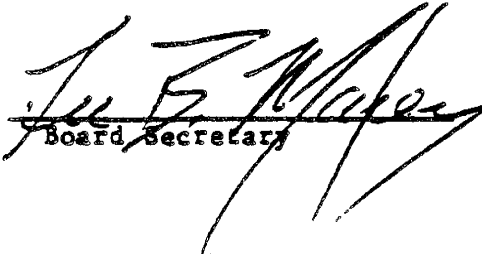
- (1) Review the applications for permits covered by said moratorium
- (2) Establish classes of waste with regard to levels of hazard;
- (3) Exempt those classes which pose no threat to the public safety and environment to expeditiously facilitate efforts to safely preserve the integrity of local landfills and enhance economic growth of Nevada's counties.

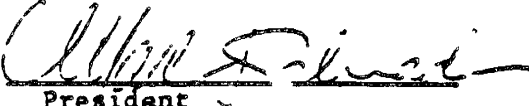
PASSED, APPROVED AND ADOPTED this 21st day of September, 1985 by the following vote of the full Board at their Annual Business Meeting in Minden, Nevada.

AYES: Unanimous
NAYS: None
ABSENT: None

Board of Nevada Association
of Counties

ATTEST:


Board Secretary


President



NEVADA ASSOCIATION OF COUNTIES



308 NORTH CURRY STREET, SUITE 205 • CARSON CITY, NEVADA 89701
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RESOLUTION NO. 14-85

ENDORING MORE STRINGENT REGULATIONS

FOR THE DISPOSAL OF HAZARDOUS MATERIALS IN

THE STATE OF NEVADA

WHEREAS, NRS.444.700 provides for the regulation of hazardous waste disposal;

WHEREAS, Nevada is being considered for a national waste disposal site;

WHEREAS, the State Department of Conservation and Natural Resources (the Department) is charged with the responsibility of enforcing the State Environmental Commission's regulations governing hazardous waste;

WHEREAS, the Department is limited as to funding and personnel to carry out the regulations to the fullest extent;

WHEREAS, the Department has the authority to develop a plan of management of hazardous waste for this state;

WHEREAS, the Department should follow the lead of the neighboring State of California and adopt that State's more stringent rules for control of hazardous waste;

WHEREAS, an example of the preceding statement is the California regulation for polychlorinated biphenyls (PCBs) in liquid form which are considered hazardous if the PCB concentration is over 5ppm while the State of Nevada's figure is over 49ppm;

NOW, THEREFORE, BE IT RESOLVED, that the Nevada Association of Counties supports any action by the State Legislature to increase funding to the Nevada State Department of Conservation and Natural Resources to increase the amount of trained staff to monitor the regulation of hazardous waste by setting a fee schedule for all handlers of hazardous waste in the State; and

RESOLUTION NO. 14-85

ENDORING MORE STRINGENT REGULATIONS

FOR THE DISPOSAL OF HAZARDOUS MATERIALS IN

THE STATE OF NEVADA

BE IT FURTHER RESOLVED, that the Nevada Association of Counties also support the development of a hazardous waste plan as stringent as California's plan, and that the Department of Conservation and Natural Resources commit itself to vigorous enforcement of the plan, rules and regulations established to regulate the disposal of hazardous materials in Nevada; and

BE IT FURTHER RESOLVED, that in any plans, rules, regulations or enforcement procedures established by the Nevada Legislature and the Nevada Department of Conservation and Natural Resources, provisions be made so that all federal, state and local government entities which may be affected by accidents or inadvertant spills involving hazardous wastes be required to:

(1) Evaluate and approve the applicant's emergency plan prior to approval of any application for the disposal of hazardous waste in Nevada;

(2) Prior to approval of any application, certify that the applicant(s) will provide appropriate remedial measures to mitigate any public or private damages or injuries resulting from an accident or inadvertant spill involving hazardous wastes.

PASSED, APPROVED AND ADOPTED this 21st day of September, 1985 by the following vote of the full Board at their Annual Business Meeting in Minden, Nevada.

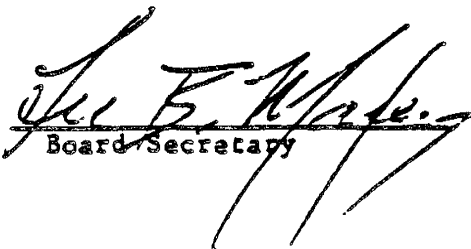
AYES: Unanimous

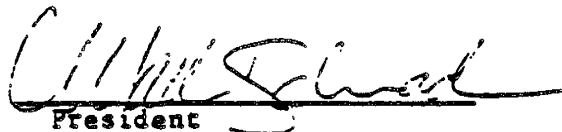
NAYS: None

ABSENT: None

Board of Nevada Association
of Counties

ATTEST:


Board Secretary


President

APPENDIX K

Suggested Legislation

	<u>Page</u>
BDR 192.....Urges state agencies to cooperate with other states and regional organizations concerning transportation of hazardous materials.....	265
BDR 193.....Urges Congress to establish regional training center at Stewart for response to emergencies..	267
BDR 194.....Urges Congress to establish strict standards for training drivers who transport hazardous materials and for tracking shipments of hazardous materials.....	269
BDR 0-195...Provides definition of "hazardous material" applicable to NRS as whole....	271
BDR 40-196..Requires spills of and accidents involving hazardous materials to be reported to the division of emergency management of the department of the military.....	275
BDR 40-197..Requires department of transportation to develop plans for routing shipments of hazardous materials.....	279
BDR 198.....Urges Congress to require agreement for notification of State of Nevada of intended entry of hazardous materials into state.....	283
BDR 40-199..Requires permit for transportation of hazardous materials into or through Nevada.....	285

**SUMMARY---Urges state agencies to cooperate with other states and regional organizations concerning transportation of hazardous materials.
(BDR 192)**

CONCURRENT RESOLUTION---Urging state agencies to cooperate with other states and regional organizations concerning the transportation of hazardous materials.

WHEREAS, Hazardous materials are being transported on the highways and railroads of this nation every day; and

WHEREAS, Each state is affected in some way by that transportation, but one state alone cannot address the related issues nor solve the resulting problems; and

WHEREAS, Cooperation among the states is necessary to develop a sensible and coordinated approach to the transportation of hazardous materials; and

WHEREAS, There are several regional and interstate organizations which can offer assistance to the states in this endeavor; now, therefore, be it

RESOLVED BY THE OF THE STATE OF NEVADA, THE

CONCURRING, That the Public Service Commission of Nevada, the Department of Transportation and the Department of Motor Vehicles and Public Safety are urged to work actively with other states and regional organizations on issues regarding the transportation of hazardous materials, including:

1. The desire of states and local governments to be notified when hazardous material is to be transported within their respective jurisdictions; and

2. The need to improve the capability of state and local governments to respond to emergencies;

and be it further

RESOLVED, That copies of this resolution be transmitted by the
to the Chairman of the Public Service Commission of Nevada, the Director of the
Department of Transportation and the Director of the Department of Motor Vehicles and
Public Safety.

SUMMARY---Urges Congress to establish regional training center at Stewart for response to emergencies. (BDR 193)

FISCAL NOTE: Effect on Local Government: No.
Effect on the State or on Industrial Insurance: No.

JOINT RESOLUTION---Urging the Congress of the United States to establish a center at Stewart, Nevada, for the training of persons who respond to emergencies, particularly those involving hazardous materials.

WHEREAS, There is a serious need to train properly persons who respond to emergencies, particularly in situations involving hazardous materials; and

WHEREAS, A regional center exists in the eastern United States to provide that training, but no such facility exists in the west; and

WHEREAS, The facilities of the former Indian school in Stewart, Nevada, are presently vacant and should be used to benefit the people of this area; now, therefore, be it

RESOLVED BY THE AND OF THE STATE OF NEVADA, JOINTLY, That the Legislature of the State of Nevada hereby urges the Congress of the United States to establish a western regional training center at Stewart, Nevada, to train persons who respond to emergencies, particularly those involving hazardous materials; and be it further

RESOLVED, That the Division of Emergency Management of Nevada's Department of the Military is directed to cooperate with the Federal Government and western regional organizations in establishing such a center; and be it further

RESOLVED, That copies of this resolution be transmitted by the to the Vice President of the United States as presiding officer of the Senate, the

Speaker of the House of Representatives, the members of the Nevada Congressional Delegation and the Division of Emergency Management of Nevada's Department of the Military;
and be it further

RESOLVED, That this resolution becomes effective upon passage and approval.

SUMMARY---Provides definition of "hazardous material" applicable to NRS as whole. (BDR 0-195)

FISCAL NOTE: Effect on Local Government: No.
Effect on the State or on Industrial Insurance: No.

AN ACT relating to statutes; providing a definition of the term "hazardous material" applicable to Nevada Revised Statutes as a whole; and providing other matters properly relating thereto.

THE PEOPLE OF THE STATE OF NEVADA, REPRESENTED IN SENATE AND
ASSEMBLY, DO ENACT AS FOLLOWS:

Section 1. The preliminary chapter of NRS is hereby amended by adding thereto a new section to read as follows:

Unless the context otherwise requires, "hazardous material" has the meaning ascribed to "hazardous substance" in 49 C.F.R. §§ 171.8 and 172.101, as those sections existed on January 1, 1987. The term includes:

1. Any raw material which is hazardous before its use.
2. Any hazardous waste or byproduct which results from the use of a raw material that is hazardous before its use.
3. Low-level radioactive material and waste.
4. Commercial high-level radioactive material and waste.

Sec. 2. NRS 408.125 is hereby amended to read as follows:

408.125 The board may:

1. Adopt such rules, bylaws, motions and resolutions, not inconsistent with this chapter, as may be necessary to govern the administration, activities and proceedings of the department.
2. On behalf of the State of Nevada, enter into agreements with any adjoining state,

or any proper agency of [such] that state, for the construction, reconstruction, improvement, operation and maintenance by any party to [such] the agreement, in such manner and by such means as may be provided in the agreement, of bridges over interstate waters, and may enter into like agreements with respect to construction, reconstruction, improvement, operation and maintenance of highways within the State of Nevada or [such] an adjoining state, when [such] those highways are at or near the common boundary of the states.

3. Authorize the department to join associations of highway officials of other states and other organizations which have been heretofore or may hereafter be established, having as their purpose the interchange of information, establishment of standards and policies relating to highway construction, reconstruction, improvement, maintenance and administration.

4. Designate by regulation alternative routes for the transport of [radioactive, chemical or other] hazardous materials over the highways or county roads of this state, in lieu of the preferred highways for [such] that transport designated by the United States Department of Transportation, or approve alternative routes set forth in a proposed county or city ordinance if the regulation or ordinance does not conflict with the standards for alternative routes established by the United States Department of Transportation.

Sec. 3. NRS 484.779 is hereby amended to read as follows:

484.779 1. Except as provided in subsection 3, a local authority may adopt, by ordinance, regulations with respect to highways under its jurisdiction within the reasonable exercise of the police power:

(a) Regulating or prohibiting processions or assemblages on the highways.

(b) Designating particular highways as one-way highways and requiring that all vehicles thereon be moved in one specific direction.

(c) Designating any highway as a through highway, requiring that all vehicles stop

before entering or crossing the highway, or designating any intersection as a stop or a yield intersection and requiring all vehicles to stop or yield at one or more entrances to the intersection.

(d) Designating truck and bicycle routes.

(e) Adopting such other traffic regulations related to specific highways as are expressly authorized by this chapter.

2. An ordinance relating to traffic control enacted under this section is not effective until official traffic-control devices giving notice of those local traffic regulations are posted upon or at the entrances to the highway or part thereof affected as may be most appropriate.

3. An ordinance enacted under this section is not effective with respect to:

(a) Highways constructed and maintained by the department of transportation under the authority granted by chapter 408 of NRS; or

(b) Alternative routes for the transport of [radioactive, chemical or other] hazardous materials which are governed by regulations of the United States Department of Transportation,

until the ordinance has been approved by the board of directors of the department of transportation.

Sec. 4. NRS 706.173 is hereby amended to read as follows:

706.173 The commission and the department may, by regulation applicable to common, contract and private motor carriers of passengers and property, adopt standards for:

1. Safety for drivers and vehicles; and

2. The transportation of hazardous materials . [, including hazardous waste as defined in NRS 459.430.]

SUMMARY---Requires spills of and accidents involving hazardous materials to be reported to the division of emergency management of the department of the military. (BDR 40-196)

FISCAL NOTE: Effect on Local Government: No.
Effect on the State or on Industrial Insurance: Yes.

AN ACT relating to hazardous materials; requiring the reporting of spills and accidents; requiring the division of emergency management of the department of the military to establish a procedure for that reporting; providing a definition of the term "hazardous material" applicable to Nevada Revised Statutes as a whole; and providing other matters properly relating thereto.

THE PEOPLE OF THE STATE OF NEVADA, REPRESENTED IN SENATE AND
ASSEMBLY, DO ENACT AS FOLLOWS:

Section 1. Chapter 459 of NRS is hereby amended by adding thereto the provisions set forth as sections 2, 3 and 4 of this act.

Sec. 2. As used in sections 2, 3 and 4 of this act, unless the context otherwise requires, "division" means the division of emergency management of the department of the military.

Sec. 3. The division shall:

1. Develop a uniform procedure for the reporting of spills of or accidents involving a hazardous material and for the subsequent notification of necessary federal, state and local governmental agencies.

2. Establish a single, statewide, toll-free telephone number for use by persons who are reporting spills of or accidents involving a hazardous material.

Sec. 4. If such a spill or accident occurs, the person who was in control of the hazardous material at the time it was involved in the spill or accident or his representative shall immediately report the spill or accident by using the toll-free telephone number established by the division for that purpose.

Sec. 5. The preliminary chapter of NRS is hereby amended by adding thereto a new section to read as follows:

Unless the context otherwise requires, "hazardous material" has the meaning ascribed to "hazardous substance" in 49 C.F.R. §§ 171.8 and 172.101, as those sections existed on January 1, 1987. The term includes:

1. Any raw material which is hazardous before its use.
2. Any hazardous waste or byproduct which results from the use of a raw material that is hazardous before its use.
3. Low-level radioactive material and waste.
4. Commercial high-level radioactive material and waste.

Sec. 6. NRS 408.125 is hereby amended to read as follows:

408.125 The board may:

1. Adopt such rules, bylaws, motions and resolutions, not inconsistent with this chapter, as may be necessary to govern the administration, activities and proceedings of the department.
2. On behalf of the State of Nevada, enter into agreements with any adjoining state, or any proper agency of [such] that state, for the construction, reconstruction, improvement, operation and maintenance by any party to [such] the agreement, in such manner and by such means as may be provided in the agreement, of bridges over interstate waters, and may enter into like agreements with respect to construction, reconstruction, improvement, operation and maintenance of highways within the State of Nevada or [such] an adjoining state, when [such] those highways are at or near the common boundary of the states.
3. Authorize the department to join associations of highway officials of other states and other organizations which have been heretofore or may hereafter be established, having as their purpose the interchange of information, establishment of standards

and policies relating to highway construction, reconstruction, improvement, maintenance and administration.

4. Designate by regulation alternative routes for the transport of [radioactive, chemical or other] hazardous materials over the highways or county roads of this state, in lieu of the preferred highways for [such] that transport designated by the United States Department of Transportation, or approve alternative routes set forth in a proposed county or city ordinance if the regulation or ordinance does not conflict with the standards for alternative routes established by the United States Department of Transportation.

Sec. 7. NRS 484.779 is hereby amended to read as follows:

484.779 1. Except as provided in subsection 3, a local authority may adopt, by ordinance, regulations with respect to highways under its jurisdiction within the reasonable exercise of the police power:

(a) Regulating or prohibiting processions or assemblages on the highways.

(b) Designating particular highways as one-way highways and requiring that all vehicles thereon be moved in one specific direction.

(c) Designating any highway as a through highway, requiring that all vehicles stop before entering or crossing the highway, or designating any intersection as a stop or a yield intersection and requiring all vehicles to stop or yield at one or more entrances to the intersection.

(d) Designating truck and bicycle routes.

(e) Adopting such other traffic regulations related to specific highways as are expressly authorized by this chapter.

2. An ordinance relating to traffic control enacted under this section is not effective until official traffic-control devices giving notice of those local traffic regulations are posted upon or at the entrances to the highway or part thereof affected as may be most appropriate.

3. An ordinance enacted under this section is not effective with respect to:

(a) Highways constructed and maintained by the department of transportation under the authority granted by chapter 408 of NRS; or

(b) Alternative routes for the transport of [radioactive, chemical or other] hazardous materials which are governed by regulations of the United States Department of Transportation,

until the ordinance has been approved by the board of directors of the department of transportation.

Sec. 8. NRS 706.173 is hereby amended to read as follows:

706.173 The commission and the department may, by regulation applicable to common, contract and private motor carriers of passengers and property, adopt standards for:

1. Safety for drivers and vehicles; and

2. The transportation of hazardous materials . [, including hazardous waste as defined in NRS 459.430.]

SUMMARY---Requires department of transportation to develop plans for routing shipments of hazardous materials. (BDR 40-197)

FISCAL NOTE: Effect on Local Government: No.
Effect on the State or on Industrial Insurance: Yes.

AN ACT relating to hazardous materials; requiring the department of transportation to develop a plan for routing shipments of hazardous materials in this state and cooperate with the Federal Government, regional organizations and other states in developing a plan for interstate shipments; providing a definition of the term "hazardous material" applicable to Nevada Revised Statutes as a whole; and providing other matters properly relating thereto.

THE PEOPLE OF THE STATE OF NEVADA, REPRESENTED IN SENATE AND
ASSEMBLY, DO ENACT AS FOLLOWS:

Section 1. Chapter 459 of NRS is hereby amended by adding thereto a new section to read as follows:

1. The department of transportation shall:

(a) Conduct an analysis of the risks involved in the transportation of hazardous materials within this state;

(b) Consult with each regional transportation commission and the governing body of the largest city in each county which does not have a regional transportation commission to determine the safest routes for the transportation of hazardous materials;
and

(c) Develop and enforce a plan for the routing of shipments of hazardous materials in this state.

2. The department of transportation shall cooperate with the United States Department of Transportation, interstate regional transportation commissions and states contiguous to Nevada to develop plans for the interstate routing of shipments of hazardous materials.

3. The department of transportation may adopt regulations necessary to carry out the provisions of this section.

Sec. 2. The preliminary chapter of NRS is hereby amended by adding thereto a new section to read as follows:

Unless the context otherwise requires, "hazardous material" has the meaning ascribed to "hazardous substance" in 49 C.F.R. §§ 171.8 and 172.101, as those sections existed on January 1, 1987. The term includes:

1. Any raw material which is hazardous before its use.
2. Any hazardous waste or byproduct which results from the use of a raw material that is hazardous before its use.
3. Low-level radioactive material and waste.
4. Commercial high-level radioactive material and waste.

Sec. 3. NRS 408.125 is hereby amended to read as follows:

408.125 The board may:

1. Adopt such rules, bylaws, motions and resolutions, not inconsistent with this chapter, as may be necessary to govern the administration, activities and proceedings of the department.
2. On behalf of the State of Nevada, enter into agreements with any adjoining state, or any proper agency of [such] that state, for the construction, reconstruction, improvement, operation and maintenance by any party to [such] the agreement, in such manner and by such means as may be provided in the agreement, of bridges over interstate waters, and may enter into like agreements with respect to construction, reconstruction, improvement, operation and maintenance of highways within the State of Nevada or [such] an adjoining state, when [such] those highways are at or near the common boundary of the states.
3. Authorize the department to join associations of highway officials of other states

and other organizations which have been heretofore or may hereafter be established, having as their purpose the interchange of information, establishment of standards and policies relating to highway construction, reconstruction, improvement, maintenance and administration.

4. Designate by regulation alternative routes for the transport of [radioactive, chemical or other] hazardous materials over the highways or county roads of this state, in lieu of the preferred highways for [such] that transport designated by the United States Department of Transportation, or approve alternative routes set forth in a proposed county or city ordinance if the regulation or ordinance does not conflict with the standards for alternative routes established by the United States Department of Transportation.

Sec. 4. NRS 484.779 is hereby amended to read as follows:

484.779 1. Except as provided in subsection 3, a local authority may adopt, by ordinance, regulations with respect to highways under its jurisdiction within the reasonable exercise of the police power:

(a) Regulating or prohibiting processions or assemblages on the highways.

(b) Designating particular highways as one-way highways and requiring that all vehicles thereon be moved in one specific direction.

(c) Designating any highway as a through highway, requiring that all vehicles stop before entering or crossing the highway, or designating any intersection as a stop or a yield intersection and requiring all vehicles to stop or yield at one or more entrances to the intersection.

(d) Designating truck and bicycle routes.

(e) Adopting such other traffic regulations related to specific highways as are expressly authorized by this chapter.

2. An ordinance relating to traffic control enacted under this section is not effective until official traffic-control devices giving notice of those local traffic regulations are

posted upon or at the entrances to the highway or part thereof affected as may be most appropriate.

3. An ordinance enacted under this section is not effective with respect to:

(a) Highways constructed and maintained by the department of transportation under the authority granted by chapter 408 of NRS; or

(b) Alternative routes for the transport of [radioactive, chemical or other] hazardous materials which are governed by regulations of the United States Department of Transportation,

until the ordinance has been approved by the board of directors of the department of transportation.

Sec. 5. NRS 706.173 is hereby amended to read as follows:

706.173 The commission and the department may, by regulation applicable to common, contract and private motor carriers of passengers and property, adopt standards for:

1. Safety for drivers and vehicles; and

2. The transportation of hazardous materials . [, including hazardous waste as defined in NRS 459.430.]

SUMMARY---Urges Congress to require agreement for notification of State of Nevada of intended entry of hazardous materials into state. (BDR 198)

FISCAL NOTE: Effect on Local Government: No.
Effect on the State or on Industrial Insurance: No.

JOINT RESOLUTION---Urging the Congress of the United States to require an agreement for the notification of the State of Nevada of the intended entry of hazardous materials into this state.

WHEREAS, The transportation of hazardous materials creates situations which greatly increase the danger that any related accident may cause serious harm to persons and property; and

WHEREAS, State and local governmental agencies are primarily responsible for responding to any such accident; and

WHEREAS, Advance notification that a shipment of hazardous materials will be entering the state would enable the proper agencies for law enforcement and public safety to prepare to respond to any accident involving that shipment; now, therefore, be it

RESOLVED BY THE AND THE OF THE STATE OF NEVADA, JOINTLY, That the Legislature of the State of Nevada urges the Congress of the United States to require each federal agency which transports hazardous materials through this state to enter into a written agreement with Nevada's Department of Motor Vehicles and Public Safety and the Public Service Commission of Nevada regarding the procedure for notification of the Department of Motor Vehicles and Public Safety and the Public Service Commission of Nevada by the federal agency of each intended entry of hazardous materials into this state; and be it further

RESOLVED, That each such agreement must set forth any exceptions to the general policy that advance notice of each such shipment must be given; and be it further

RESOLVED, That copies of this resolution be transmitted by the to the Vice President of the United States as presiding officer of the Senate, the Speaker of the House of Representatives and the members of the Nevada Congressional Delegation; and be it further

RESOLVED, That this resolution becomes effective upon passage and approval.

SUMMARY---Requires permit for transportation of hazardous material into or through Nevada. (BDR 40-199)

FISCAL NOTE: Effect on Local Government: Yes.
Effect on the State or on Industrial Insurance: Yes.

AN ACT relating to hazardous material; requiring certain carriers to obtain a permit to transport hazardous material into or through Nevada; creating a special fund for training for incidents involving hazardous material; requiring prior notification of shipments into or through Nevada; defining hazardous material; providing penalties; and providing other matters properly relating thereto.

THE PEOPLE OF THE STATE OF NEVADA, REPRESENTED IN SENATE AND
ASSEMBLY, DO ENACT AS FOLLOWS:

Section 1. Chapter 459 of NRS is hereby amended by adding thereto the provisions set forth as sections 2 to 7, inclusive, of this act.

Sec. 2. 1. Except as otherwise provided in this section, a transporter, including an interstate or intrastate motor carrier, shall not transport a hazardous material on the public roads of this state unless he has an annual or temporary permit from the state department of conservation and natural resources specifically allowing him to transport the hazardous material.

2. An application for a permit must specifically describe the material to be transported, the vehicle transporting the material and the particular roads over which the material is to be transported. If the application is for a temporary permit, the application must also specify the period for which the permit is requested. The application must be accompanied by a fee of \$500 and adequate proof that each driver has received proper training in the safe handling and transportation of the hazardous materials. This proof may include a copy of a certificate of training issued to each driver.

3. A permit must be issued to a transporter if he adequately demonstrates that he complies and will continue to comply with all laws and regulations of this state and the Federal Government respecting the handling and transport of hazardous materials and the safety of drivers and vehicles.

4. A transporter of hazardous material shall notify the state department of conservation and natural resources and the Nevada highway patrol not less than 4 nor more than 48 hours before he begins to transport the material in this state.

5. The provisions of this section do not apply to:

(a) A transporter of radioactive waste who holds a permit issued pursuant to section 7 of this act; or

(b) Vehicles leased to or owned by:

(1) The Federal Government or any instrumentality thereof.

(2) Any state or a political subdivision thereof.

6. The department of motor vehicles and public safety shall cooperate with and provide assistance to the state department of conservation and natural resources in administering the provisions of this section. Designated employees of the state department of conservation and natural resources, the public service commission of Nevada and the Nevada highway patrol shall enforce the laws and regulations of this state relating to the transport and handling of hazardous materials, as they affect the safety of drivers and vehicles and the leakage or spill of that material from packages.

7. The state environmental commission may adopt regulations for the issuance of a permit pursuant to this section.

Sec. 3. Every permit issued pursuant to section 2 of this act must be carried in the vehicle or combination of vehicles to which it refers. Any vehicle of a transporter who holds such a permit must be open to inspection by any peace officer, authorized agent of the state department of conservation and natural resources or any other person charged with the care or protection of the highways of this state.

Sec. 4. The fees collected pursuant to section 2 of this act must be used to pay for the costs of administering the provisions of sections 2 and 3 of this act. Any money remaining from the fees and all civil penalties imposed pursuant to section 5 of this act must be deposited with the state treasurer for credit to the fund for training for incidents involving hazardous material, which is hereby created as a special fund. The money in this fund may be expended only to pay the costs of providing training and equipment for persons who are first official responders to a spill of or an accident involving hazardous material, particularly in rural areas. The money in the fund must be paid as other claims against the state are paid.

Sec. 5. Any person who does not obtain a permit as required pursuant to section 2 of this act or who violates a term or condition of a permit issued pursuant to that section:

1. Is liable to the state department of conservation and natural resources for a civil penalty of not more than \$10,000 for each day of the violation; and

2. Shall be punished by a fine of not more than \$25,000 for each day of the violation.

Sec. 6. The public service commission of Nevada and the department of motor vehicles and public safety may, by regulation applicable to common, contract and private motor carriers of property, adopt standards for the transportation of hazardous materials.

Sec. 7. 1. A common, contract or private motor carrier of property shall not transport radioactive waste upon the highways of this state unless he obtains from the public service commission of Nevada a permit specifically allowing him to transport radioactive waste. An interstate common or contract carrier must register with the public service commission of Nevada the certificate issued to him by the Interstate Commerce Commission when he applies for such a permit.

2. The public service commission of Nevada shall issue a permit to a carrier allowing him to transport radioactive waste if the carrier:

(a) Registers his certificate issued by the Interstate Commerce Commission and complies with the regulations of the public service commission of Nevada respecting the registration of interstate carriers; or

(b) Demonstrates to the satisfaction of the public service commission of Nevada that he complies and will continue to comply with all laws and regulations of this state and the Federal Government respecting the handling and transport of radioactive waste and the safety of drivers and vehicles.

3. A carrier of radioactive waste shall reject any package containing such waste which is tendered to him for transport in this state if the package is leaking or spilling its contents, or does not bear a shipping label or is not accompanied by a bill of lading or other shipping document in a form prescribed by the regulations of the state board of health. A carrier who accepts such waste for transport in this state is liable for any package in his custody which leaks or spills its contents, does not bear the required shipping label or is not accompanied by the required shipping documents, unless, in the case of a leak or spill of such waste and by way of affirmative defense, the carrier proves that he did not and could not know of the leak when he accepted the package for transport.

4. A carrier of radioactive waste shall notify the public service commission of Nevada and the Nevada highway patrol not less than 4 nor more than 48 hours before he begins to transport the waste in this state.

5. A carrier need not obtain the permit required by this section if he has been exempted from licensing by the health division because he transports only radioactive waste the possession of which has been exempted from licensure pursuant to the regulations of the state board of health.

6. The public service commission of Nevada may revoke a certificate issued pursuant to this chapter, and shall revoke a permit to transport radioactive waste issued pursuant to this section, or in the case of a carrier whose certificate is issued by the Interstate Commerce Commission it may file a complaint with that commission, if it finds that, while transporting radioactive waste, the carrier has failed to comply with any laws or regulations of this state or the Federal Government respecting the handling or transport of radioactive waste and the safety of drivers or vehicles.

Sec. 8. NRS 459.010 is hereby amended to read as follows:

459.010 As used in NRS 459.010 to 459.290, inclusive, and section 7 of this act, unless the context requires otherwise:

1. "By-product material" means:

(a) Any radioactive material, except special nuclear material, yielded in or made radioactive by exposure to the radiation incident to the process of producing or making use of special nuclear material; and

(b) The tailings or wastes produced by the extraction or concentration of uranium or thorium from any ore which is processed primarily for the extraction of the uranium or thorium.

2. "General license" means a license effective pursuant to regulations adopted by the state board of health without the filing of an application to transfer, acquire, own, possess or use quantities of, or devices or equipment for utilizing, by-product material, source material, special nuclear material or other radioactive material occurring naturally or produced artificially.

3. "Health division" means the health division of the department of human resources.

4. "Ionizing radiation" means gamma rays and X-rays, alpha and beta particles,

high-speed electrons, neutrons, protons and other nuclear particles, but not sound or radio waves, or visible, infrared or ultraviolet light.

5. "Person" includes any agency or political subdivision of this state, any other state or the United States, but not the Nuclear Regulatory Commission or its successor, or any federal agency licensed by the Nuclear Regulatory Commission or any successor to such a federal agency.

6. "Source material" means:

(a) Uranium, thorium or any other material which the governor declares by order to be source material after the Nuclear Regulatory Commission or any successor thereto has determined that material to be source material.

(b) Any ore containing one or more of the materials enumerated in paragraph (a) in such concentration as the governor declares by order to be source material after the Nuclear Regulatory Commission or any successor thereto has determined the material in the concentration to be source material.

7. "Special nuclear material" means:

(a) Plutonium, uranium 233, uranium enriched in the isotope 233 or in the isotope 235 and any other material which the governor declares by order to be special nuclear material after the Nuclear Regulatory Commission or any successor thereto has determined such material to be special nuclear material, but does not include source material.

(b) Any material artificially enriched by any of the materials enumerated in paragraph (a), but does not include source material.

8. "Specific license" means a license issued pursuant to the filing of an application to use, manufacture, produce, transfer, receive, acquire, own or possess quantities of, or devices or equipment for utilizing, by-product material, source material, special nuclear material or other radioactive material occurring naturally or produced artificially.

Sec. 9. NRS 459.250 is hereby amended to read as follows:

459.250 1. Peace officers of the public service commission of Nevada and the Nevada highway patrol shall enforce those provisions of NRS 459.221 and [706.441] section 7 of this act which govern the transport and handling of radioactive waste as they affect the safety of drivers or vehicles, the leakage or spill of radioactive waste from its package or the emission of ionizing radiation in an unsafe amount as established by the regulations of the state board of health.

2. The peace officer may:

(a) Impound a vehicle with unsafe equipment; or

(b) Detain a vehicle, if any waste has leaked or spilled from its package or if he has detected the emission of ionizing radiation in an unsafe amount, and order the driver of the vehicle to park it in a safe place, as determined by an officer designated by the health division , [of the department of human resources,] pending remedial action by that division.

3. After a vehicle has been so detained, an officer designated by the health division [of the department of human resources] may order:

(a) The vehicle to be impounded;

(b) The leaked or spilled waste to be cleaned up;

(c) The contents of any unsafe or leaking package to be repackaged; or

(d) Any other appropriate precaution or remedy,

at the expense of the shipper or broker, carrier or other person who is responsible as determined by the health division . [of the department of human resources.]

Sec. 10. NRS 459.460 is hereby amended to read as follows:

459.460 1. NRS 459.400 to 459.600, inclusive, do not apply to any activity or substance which is subject to control pursuant to NRS 445.131 to 445.399, inclusive.

NRS 459.010 to 459.290, inclusive, and section 7 of this act and sections 2 to 6, inclusive, of this act, except to the extent that they can be applied in a manner which is not inconsistent with those sections.

2. The director shall administer NRS 459.400 to 459.600, inclusive, in a manner which avoids duplication of the provisions of NRS 445.131 to 445.601, inclusive, and the Federal Insecticide, Fungicide and Rodenticide Act, 7 U.S.C. §§ 136 et seq.

Sec. 11. NRS 459.500 is hereby amended to read as follows:

459.500 1. Regulations of the commission must provide for safety in packaging, handling, transport and disposal of hazardous waste, including safety of vehicles and drivers, and may provide for the licensing and other necessary regulation of generators [and transporters, including shippers, brokers and carriers, both intrastate and interstate,] who transport that waste or cause it to be transported into [or through Nevada or] Nevada for disposal in Nevada.

2. The regulations may include provisions for:

(a) Fees to pay the cost of inspection and other regulation; and

(b) Administrative penalties of not more than \$2,500 per violation or \$10,000 per shipment for violations by persons licensed by the department, and the criminal prosecution of violations of its regulations by persons who are not licensed by the department.

[3. Designated employees of the department, the public service commission of Nevada and the Nevada highway patrol shall enforce the regulations of the commission relating to the transport and handling of hazardous waste, as they affect the safety of drivers and vehicles and the leakage or spill of that waste from packages.]

Sec. 12. The preliminary chapter of NRS is hereby amended by adding thereto a new section to read as follows:

Unless the context otherwise requires, "hazardous material" has the meaning

ascribed to "hazardous substance" in 49 C.F.R. §§ 171.8 and 172.101, as those sections existed on January 1, 1987. The term includes:

1. Any raw material which is hazardous before its use.
2. Any hazardous waste or by-product which results from the use of a raw material that is hazardous before its use.
3. Low-level radioactive material and waste.
4. Commercial high-level radioactive material and waste.

Sec. 13. NRS 408.125 is hereby amended to read as follows:

408.125 The board may:

1. Adopt such rules, bylaws, motions and resolutions, not inconsistent with this chapter, as may be necessary to govern the administration, activities and proceedings of the department.

2. On behalf of the State of Nevada, enter into agreements with any adjoining state, or any proper agency of [such] that state, for the construction, reconstruction, improvement, operation and maintenance by any party to [such] the agreement, in such manner and by such means as may be provided in the agreement, of bridges over interstate waters, and may enter into like agreements with respect to construction, reconstruction, improvement, operation and maintenance of highways within the State of Nevada or [such] an adjoining state, when [such] those highways are at or near the common boundary of the states.

3. Authorize the department to join associations of highway officials of other states and other organizations which have been heretofore or may hereafter be established, having as their purpose the interchange of information, establishment of standards and policies relating to highway construction, reconstruction, improvement, maintenance and administration.

4. Designate by regulation alternative routes for the transport of [radioactive, chemical or other] hazardous materials over the highways or county roads of this state, in

lieu of the preferred highways for [such] that transport designated by the United States Department of Transportation, or approve alternative routes set forth in a proposed county or city ordinance if the regulation or ordinance does not conflict with the standards for alternative routes established by the United States Department of Transportation.

Sec. 14. NRS 481.023 is hereby amended to read as follows:

481.023 Except as otherwise provided therein, the department shall execute, administer and enforce, and perform the functions and duties provided in:

1. Title 43 of NRS relating to vehicles.
2. Chapter 706 of NRS relating to licensing of motor vehicle carriers and the use of public highways by those carriers.
3. Chapter 366 of NRS relating to imposition and collection of taxes on special fuels used for motor vehicles.
4. Chapter 233F of NRS relating to the state communications system.
5. Chapter 453 of NRS relating to controlled substances and chapter 454 of NRS relating to dangerous drugs.
6. Chapter 459 of NRS relating to the transportation of hazardous materials.

Sec. 15. NRS 481.180 is hereby amended to read as follows:

481.180 1. The duties of the personnel of the Nevada highway patrol are:

(a) To police the public highways of this state, and to enforce and to aid in enforcing thereon all the traffic laws of the State of Nevada. They have the powers of peace officers:

- (1) When enforcing traffic laws; and
- (2) With respect to all other laws of this state when:
 - (I) In the apprehension or pursuit of an offender or suspected offender;
 - (II) Making arrests for crimes committed in their presence or upon or adjacent to the highways of this state; or

(III) Making arrests pursuant to a warrant in the officer's possession or communicated to him.

(b) To investigate accidents on all primary and secondary highways within the State of Nevada resulting in personal injury, property damage or death, and to gather evidence for the purpose of prosecuting any person guilty of any violation of the law contributing to the happening of such an accident.

(c) To enforce the provisions of chapters 365, 366, 408, 482, 483, 485, 486, 487 and 706 of NRS.

(d) To enforce the provisions of chapter 459 of NRS relating to the transportation of hazardous materials.

(e) To maintain the central repository for Nevada records of criminal history and to carry out the provisions of chapter 179A of NRS.

[(e)] (f) To perform such other duties in connection with the duties specified in this section, as may be imposed by the director.

2. Commercial officers, supervisors and inspectors:

(a) Shall enforce the provisions of chapters 365, 366, 408, 482, 483, 484, 487 and 706 of NRS.

(b) Shall enforce the provisions of chapter 459 of NRS relating to the transportation of hazardous materials.

(c) Have the powers of peace officers when carrying out the duties specified in [paragraph (a).] paragraphs (a) and (b).

Sec. 16. NRS 484.779 is hereby amended to read as follows:

484.779 1. Except as provided in subsection 3, a local authority may adopt, by ordinance, regulations with respect to highways under its jurisdiction within the reasonable exercise of the police power:

(a) Regulating or prohibiting processions or assemblages on the highways.

(b) Designating particular highways as one-way highways and requiring that all vehicles thereon be moved in one specific direction.

(c) Designating any highway as a through highway, requiring that all vehicles stop before entering or crossing the highway, or designating any intersection as a stop or a yield intersection and requiring all vehicles to stop or yield at one or more entrances to the intersection.

(d) Designating truck and bicycle routes.

(e) Adopting such other traffic regulations related to specific highways as are expressly authorized by this chapter.

2. An ordinance relating to traffic control enacted under this section is not effective until official traffic-control devices giving notice of those local traffic regulations are posted upon or at the entrances to the highway or part thereof affected as may be most appropriate.

3. An ordinance enacted under this section is not effective with respect to:

(a) Highways constructed and maintained by the department of transportation under the authority granted by chapter 408 of NRS; or

(b) Alternative routes for the transport of [radioactive, chemical or other] hazardous materials which are governed by regulations of the United States Department of Transportation,

until the ordinance has been approved by the board of directors of the department of transportation.

Sec. 17. NRS 703.155 is hereby amended to read as follows:

703.155 1. The employees of the commission whom it designates as inspectors and as manager of transportation have police power for the enforcement of all regulations of the commission or the department of motor vehicles and public safety pertaining to chapters 459, 704, 705 and 706 of NRS.

2. The commission's inspectors and the manager of transportation are peace officers for the enforcement of chapters 459, 482, 704, 705 and 706 of NRS.

3. The commission's inspectors and the manager of transportation are peace officers for the enforcement of chapters 483 and 484 of NRS for vehicles which are regulated pursuant to chapter 706 of NRS.

4. Inspectors and the manager of transportation may carry firearms in the performance of their duties.

Sec. 18. NRS 706.173 is hereby amended to read as follows:

706.173 The commission and the department may, by regulation applicable to common, contract and private motor carriers of passengers and property, adopt standards for [:

1. Safety] safety for drivers and vehicles . [; and

2. The transportation of hazardous materials, including hazardous waste as defined in NRS 459.430.]

Sec. 19. NRS 706.441 is hereby repealed.