REPORT OF THE

AD HOC COMMITTEE ON HAZARDOUS MATERIALS AND HAZARDOUS WASTE MANAGEMENT

TO THE CITY AND BOROUGH OF JUNEAU ASSEMBLY

March 1990

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EXECUTIVE SUMMARY

Appointed by the Assembly in May 1989, the Ad Hoc Committee on Hazardous Materials and Hazardous Waste Management was charged with the task of examining the hazardous materials and hazardous waste situation in Juneau, identifying areas of concern, and forming recommendations to address those concerns.

The committee members included: Dave DiTraglia, who served as chairman; Jack Cottrell; Mark Johnson, Jeff Mach; and Edward McKrill. In examining the various issues pertaining to hazardous materials and hazardous waste, committee members shared their own professional expertise in various aspects of the field. The committee also invited several guest speakers who provided additional information and ideas.

The committee approached its task by reviewing pertinent laws and regulations and analyzing how they affect Alaska and, in particular, Juneau. The committee focused on those areas where increased local government involvement could enhance existing efforts in hazardous materials and hazardous waste management.

Several important federal laws and their Alaska counterparts were examined and discussed by the committee including: the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) which created the Superfund; the Resource Conservation and Recovery Act (RCRA), which created a tracking system to ensure proper disposal of hazardous wastes; the Superfund Amendments and Reauthorization Act, whose Title III is the Emergency Planning and Community Right-to-Know Act which requires state and local emergency planning as well as the reporting of certain chemical use and emission information; and the Hazardous Materials Transportation Act which ensures the safe shipment of hazardous materials. These complementary sets of laws are intended to protect the environment and public safety by addressing important aspects of hazardous materials and hazardous waste management.

CERCLA created the Superfund trust which provides funding to investigate and clean up sites contaminated by hazardous substances. The program is designed to clean up the worst of the nation's contaminated sites.

RCRA, on the other hand, is primarily a "preventative" program which requires the proper management of hazardous wastes in order to prevent the type of contaminated sites that the Superfund program cleans up. RCRA establishes a regulatory tracking system which requires that a manifest accompany a hazardous waste from its site of generation to its site of final treatment, storage, or disposal. This tracking system establishes accountability to ensure proper disposal of the waste.

SARA Title III requires facilities that use certain chemicals to report to the local governments and for local governments to provide the public with information on hazardous materials present and released into local communities. It also mandates that state and local governments prepare emergency response plans to be used in the event of a hazardous material spill or leak.

The committee determined that it is essential for the City and Borough of Juneau to play an active role in hazardous materials and hazardous waste management for two reasons. First, it is critical that the city and borough protect itself from potential liabilities posed by federal laws. For example, if a serious hazardous materials release occurs and the city and borough has not developed a local emergency response plan, the city and borough could have significant liability under current federal laws. It is also imperative that the city and borough protect itself from liabilities arising from the mismanagement of hazardous materials and wastes on municipally-owned land. State laws as well as Superfund's strict, joint and several liability makes all parties equally liable for cleanup of a contaminated site regardless of the extent to which they were involved in the contamination of the site.

The second reason it is important that the city and borough develop a hazardous materials and hazardous waste program is to address those areas of concern not currently regulated under federal and state environmental laws. For example, household hazardous waste is not stringently regulated under current federal or state hazardous waste laws; yet in Juneau, household hazardous waste makes up a substantial portion of the hazardous waste stream. By some estimates, Juneau households may generate 70 to 350 tons of hazardous waste per year. In contrast, an estimated 58 tons of hazardous waste may be generated each year by Juneau businesses or government facilities. Unlike households, these businesses or facilities are required to dispose of their wastes according to strict federal and state hazardous waste laws. Thus, the potential exists for a large portion of Juneau's hazardous wastes to be improperly discarded at the local incinerator or in the backyard.

In the Recommendations Summary, the committee has identified specific ways for the city and borough to take a lead role in managing hazardous materials and hazardous wastes in Juneau. The recommendations address several areas of concern including: Superfund issues; household hazardous wastes; mine wastes; medical wastes; emergency response planning; transportation; facility siting; and education.

Finally, the committee recommends that two standing committees be created. One would function as a Local Emergency Planning Committee which would oversee emergency response planning and further investigate the facility location and transportation issues. The second committee would focus on community waste

management issues including: household hazardous wastes; medical wastes; mine wastes; Superfund investigations; recycling; sludge disposal; and public education and information.

RECOMMENDATIONS SUMMARY

The Ad Hoc Committee on Hazardous Materials and Hazardous Waste Management recommends that the City and Borough of Juneau take the following actions:

The city and borough should adopt an integrated waste management plan to effectively and safely handle Juneau's hazardous and solid waste streams. An integrated waste management plan will contain some or all of the following components, arranged in the order of emphasis:

* Source waste reduction
* Recycling
* Incineration
* Landfilling

The city and borough should continue to provide the means and incentive for Juneau's citizens and businesses to properly dispose of household and other hazardous wastes.

* The city and borough should continue participating in the jointly sponsored city and borough and Alaska Department of Environmental Conservation (DEC) "Spring Cleanup."
* The city and borough should investigate the feasibility of establishing a year-round hazardous waste collection facility, either for household and small business wastes or for all quantities of hazardous wastes. The city and borough should discuss with DEC the possibility of Juneau serving as a regional collection center.

The city and borough should aggressively begin a public education and information program with emphasis placed on reducing hazardous waste at the source and on proper methods for hazardous waste disposal. It is the committee's view that the assembly should appropriate funds sufficient to develop a comprehensive hazardous materials and hazardous waste education and public information program in Juneau.

* The city and borough should conduct community waste minimization workshops and promote product substitution, recycling, and reuse.
* The city and borough should identify a group of knowledgeable people who are able and willing to speak

to groups within the community on local and state hazardous materials and waste issues.

* The city and borough should disseminate information via the media about the proper disposal of such household wastes as used oil, paint, batteries, chemicals, and infectious wastes.

* The city and borough should investigate providing information on hazardous materials and waste issues on utility bills.

* With the cooperation of the school district, the city and borough should:

  Establish a Natural Resources Month in the local schools (similar to the Fairbanks program) that features speakers who could address hazardous materials and waste issues, among other topics.

  Develop a curriculum kit for use in the schools to educate children about hazardous materials and wastes.

* With the cooperation of the University of Alaska Southeast, the city and borough should incorporate information about proper management of hazardous materials and wastes into university programs.

* The city and borough should disseminate information to local businesses about the proper disposal of hazardous wastes and emergency planning.

The city and borough must protect itself from liabilities arising from the mismanagement of hazardous materials and hazardous wastes on municipally-owned land.

* Prior to acquiring land, the city and borough should determine whether contamination exists from prior use and if so what potential liability exists if the land is acquired. If there is reason to believe the land might have been contaminated, the city and borough must aggressively seek a determination on whether or not contamination exists. This might entail hiring a qualified specialist to conduct an environmental audit. The city and borough may also consider the possibility of requiring the landowner to clean up the contamination prior to the transfer of title.

* When acquiring land, the city and borough should assure the deed language protects the city and borough, to the

extent feasible, from future liability that may arise because of contamination caused by the previous owner.

* When the city and borough leases it land to another party, the city and borough should protect itself from liability for contamination caused by the lessee.

* The city and borough needs to develop a heightened awareness of the substantial economic liabilities that could result from the mismanagement of hazardous materials and hazardous wastes on municipally-owned land.

* The city and borough should continue to actively participate in the review of federal and state investigations of potential Superfund sites within the city and borough, particularly those sites on municipally-owned land.

* The city and borough should continue its independent environmental examinations of municipally-owned lands to identify any contamination problems.

* The city and borough should work with DEC to determine what remedial actions, if any, should be taken at contaminated sites within the city and borough that are determined not eligible for Superfund cleanup monies.

Bartlett Memorial Hospital should install a new medical waste incinerator which meets federal, state and local environmental standards and which is large enough to accommodate future demand. The incinerator should be available as a medical waste disposal option to all of the Juneau medical community.

The Juneau medical community and Channel Sanitation should be encouraged to continue to work together and maintain agreement on which components of the medical waste stream present risks and to whom. Protective measures should be identified and implemented.

The city and borough should work with the Juneau medical community to examine the feasibility of establishing a program to encourage diabetics and other needle users to return used needles to the hospital, doctors' offices, pharmacies or other designated locations.

The city and borough should work with DEC to stay abreast of the pending federal regulations that would impose new requirements on mines producing high volume mine wastes (mine tailings, overburden dumps, and leach dumps) to ensure the final regulations satisfy the city and borough's interests.

The city and borough should encourage local mining companies to

participate in community right-to-know and the chemical inventory reporting system developed under Title III of the Superfund Amendments and Reauthorization Act (SARA Title III).

Information on hazardous materials shipped to and from Juneau should be coordinated between the U.S. Coast Guard, the fire department, and other appropriate agencies as determined by the Local Emergency Planning Committee.

The city and borough should purchase Apple Macintosh computer hardware to enable the fire department to use the Computer-Aided Management of Emergency Operations (CAMEO) software for hazardous materials emergency response operations.

Regulations pertaining to transshipment storage of hazardous materials in Juneau should be more actively enforced to ensure incompatible materials are not being stored too close to each other.

The city and borough should investigate the possibility of adding a staff position to the fire department to coordinate implementation of SARA Title III. This position would also be responsible for providing increased enforcement of the Uniform Fire Code to ensure that hazardous materials are being properly stored at upland facilities.

There should be an ongoing process to share information between the U.S. Coast Guard and the city and borough fire department on hazardous materials shipments into Juneau.

The city and borough should assess the enforcement of state and federal transportation laws. The city and borough should also investigate the possibility of:

* Requiring escort vehicles for transporters of certain extremely hazardous materials.

* Restricting the transportation of certain extremely hazardous materials through town to certain hours of the day or limiting them to certain routes.

The city and borough should investigate the off-loading of explosives onto trucks at the North Douglas boat ramp to determine if that is the safest way to bring them into Juneau.

The city and borough should examine its zoning code to determine if the siting of facilities using or storing large quantities of hazardous materials should be further regulated through the city and borough's zoning powers. The evaluation should determine ways to improve public safety by ensuring that facilities that pose a danger are located away and remain isolated from populated areas

as much as possible.

Commercial as well as industrial facilities using large quantities of hazardous materials or extremely hazardous materials should be specifically mentioned in the Table of Permissible Uses and should require a conditional use permit. Disclosure of the use of hazardous materials or the generation of hazardous waste should be required in the conditional use permit application.

The city and borough should evaluate existing commercial and industrial uses which require storage of hazardous materials to determine need for possible relocation or other mitigative measures.

The city and borough should develop incentive plans for industries to centralize in designated industrial districts. For example, an incentive plan should be developed for fuel tank farms and propane storage facilities to be centrally located away from residential areas.

The city and borough should consider alternative siting and/or mitigation of impacts associated with hazardous materials in approving permits for new development.

The city and borough assembly should recommend that the City and Borough of Juneau be designated as a Local Emergency Planning District (LEPD) and nominate a Local Emergency Planning Committee (LEPC), under SARA Title III, to the State Emergency Response Commission (SERC). In addition to those representatives specified by law, the committee recommends that Juneau's LEPC include a representative from the U.S. Coast Guard. The LEPC would collect and make available information on extremely hazardous substances and would develop an emergency response plan to be used in the event of a hazardous material spill or leak. Additionally, the LEPC could assist in the following:

* Development of a comprehensive emergency response plan for all potential disaster emergencies which may affect the Juneau area, including earthquakes and avalanches.

* Making recommendations on regulating transportation routes of certain hazardous materials.

* Making recommendations in the determination of safest locations for storage or transshipment facilities.

The city and borough assembly should create a second standing committee which would focus on waste management issues, including:

* **Household hazardous wastes**

* **Medical wastes**

* **Mine wastes**

* **Superfund investigations**

* **Recycling**

* **Sludge disposal**

* **Public education and information**

This standing committee would merge the recycling committee's (Mayor's Committee on Recycling) issues with the hazardous waste and other waste issues.

CONTAMINATED SITE CLEANUP

Regulatory Overview

What is "CERCLA"? The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) was enacted by Congress in 1980 to address the releases of hazardous substances and their cleanup. CERCLA was amended by Congress in 1984 by the Superfund Amendments and Reauthorization Act (SARA).

What is the "Superfund"? CERCLA is best known for creating "Superfund," a trust fund that can be used to investigate and clean up sites contaminated by hazardous substances. Originally, Congress allocated $1.6 billion to help begin this cleanup. When reauthorized in 1986, the size of the Superfund was increased to $8.5 billion.

What is a "hazardous substance"? Under CERCLA a hazardous substance is any element, compound, mixture, solution, or substance which, when released to the environment, may present substantial danger to public health or welfare or the environment. This definition includes any substance designated in the Clean Water Act; any hazardous wastes identified in Resource Conservation and Recovery Act (RCRA); any hazardous air pollutant listed in the Clean Air Act; and, any imminently hazardous substance or mixture for which the government has taken action under the Toxic Substance Control Act (TSCA) (Section 7). The definition excludes petroleum including crude oil, natural gas, natural gas liquids, liquified natural gas, or synthetic gas usable for fuel. It is important to remember that the definition of a hazardous substance in CERCLA is much broader than the definition of hazardous waste in RCRA.

Who pays for cleanup? CERCLA authorizes the U.S. Environmental Protection Agency (EPA) to find responsible parties for each abandoned hazardous waste site and hold those parties responsible for cleanup. If responsibility cannot be established early in the process, then EPA has been delegated to clean up the site and recover costs from parties later. The EPA will take legal action to recover its investigation and remedial costs when responsible parties are unwilling to cleanup a site.

Under CERCLA, hazardous waste generators, site owners and operators, and transporters are all liable for cleanup costs. CERLCA's strict, joint and several liability makes all parties equally liable regardless of the extent to which they were involved in the contamination of a site. SARA extends these same liabilities. Cleanup contractors, under the 1986 amendments, are relieved of liability unless it can be proven they were negligent in their duties.

Is a landowner liable even if he didn't cause the contamination on his property? The original CERCLA laws held waste disposal site owners

liable for cleanup under all circumstances of ownership. SARA modified this to protect new owners who had no previous knowledge of hazardous waste activity on the land. This "innocent landowner" exemption applies only if the new owner has the land thoroughly examined and certified "clean" by a qualified specialist before purchasing the land.

Under the original CERCLA statutory and case law, state and local governments were not held liable for cleanups. With the enactment of SARA, a greater responsibility for cleanup was placed on the states and local governments. If a local or state government owns a contaminated site, it is liable for 10% of the cleanup costs. If the site was acquired by legal default, such as by tax foreclosure, the state and local governments are not held responsible. If a local or state government owns a contaminated site and in some way caused the contamination, it is liable for 50% of the cleanup costs.

How is a Superfund site determined? Although the EPA may initiate emergency response actions at a contaminated site at any time, most often these sites are investigated and remedial action is undertaken through a multi-step process that may take years to complete. Sites determined to pose the most serious health threats are placed on the National Priorities List, a nationwide ranking of contaminated sites slated for long-term remedial actions using the Superfund. Long-term remedial actions may include containing contaminants on-site so that they no longer present a threat; treating or destroying contaminants on-site; and removing the hazardous substances from the site to an approved facility for waste treatment, storage or destruction. Contaminated sites that do not rank high enough to be placed on the National Priorities List become the responsibility of the states to manage.

Superfund in Alaska

What is the EPA/DEC process for evaluating potential Superfund sites? EPA provides funding to Alaska, through the Alaska Department of Environmental Conservation (DEC), to conduct preliminary assessments and site investigations, as appropriate, at each site identified as having an actual or potential release of hazardous substances. The EPA/DEC evaluates these sites for placement on the National Priorities List. Once on the National Priorities List, a Remedial Investigation/Feasibility Study is conducted to determine the appropriate remedial alternatives and objectives. Next, a remedial action is selected and cleanup begins.

What is a preliminary assessment? The EPA, through the DEC, initiates a preliminary assessment as the first step in the protocol. This study is often a quick analysis based a readily available information such as site management practices, information from hazardous waste generators, photographs, literature and personal interviews. If more information is needed, a site visit is included. The goal of the

preliminary assessment is to determine the urgency of the situation and to identify any non-federal parties ready, willing and able to undertake a proper response. Citizens may contact either the EPA Alaska Operation office or the DEC to petition the EPA to do preliminary assessment of a site. If the release requires a removal action, the preliminary assessment is done as promptly as possible. If a removal action is appropriate, that action can proceed with consideration of the site for the National Priorities List.

What is a site investigation? Often, information generated in a preliminary assessment is inconclusive for purposes of evaluating the site for the National Priorities List. As a result, the EPA/DEC will conduct an investigation of a site using various contractors funded by the state. The site investigation may involve limited sampling to better assess the potential for release or threat of release. In addition, these sampling results will broaden the data base to evaluate the site for placement on the National Priorities List.

Are there any Superfund sites in Alaska? In Alaska, 206 sites have been identified as suspected contaminated sites. Over half (119) of those sites are located on federally-owned land, and most of those are military sites. The EPA and DEC conducted a preliminary assessment to determine the severity of the hazards on all 87 sites located on state, municipal, and privately-owned land. Two sites, Eielson Air Force Base (Fairbanks) and Alaska Battery Enterprises (Fairbanks), have been placed on the National Priorities List. An additional four sites (two in Fairbanks and two in Anchorage) have been proposed for placement on the National Priorities List. The EPA has directed emergency cleanups at five sites in Alaska (three in the Anchorage vicinity and two in Fairbanks).

Superfund in Juneau

Are there potential Superfund sites within the City and Borough of Juneau? Within the City and Borough of Juneau, eight sites suspected to be contaminated by hazardous substances have been identified to date: the AJ Mine Tailings; the Jualapa Tunnel; the Channel Sanitation Landfill; the Perseverance Mill; the former Red Samm Construction Site; the Thane Mine Dump; the Treadwell Mines; and the Coughlin Island Federal Aviation Administration (FAA) site. Five of those sites are partially located on municipally-owned property. The EPA and DEC have evaluated the eight sites.

In addition to the investigatory work accomplished by the federal and state agencies, the city and borough conducted independent environmental investigations on three city and borough-owned properties: the AJ Mine Tailings; the Perseverence Mill; and the Treadwell Mines. The city and borough staff felt that it was important to take an active role in investigating these sites even though the sites were under the EPA/DEC Superfund investigation. As a result, the city and borough hired Versar, Inc., an environmental

consulting firm to investigate environmental hazards at each site. The work, conducted during July 1988, included sampling the following: soils; stream sediments; and water.

A brief status report on each site follows:

1. AJ Mine Tailings A preliminary assessment was conducted by DEC at this site in March 1989. The preliminary assessment focused on potential problems with air and groundwater contamination associated with the mine tailings. Of particular concern was possible contamination by lead, zinc, arsenic, and mercury. The preliminary assessment did not reveal any major potential environmental or public health problems. However, a site investigation is scheduled to take place during 1990. The site investigation will further evaluate potential problems at this site including health threats from windblown tailings and will recommend any further action that might be required.

   Results of the city and borough analysis of the sample from the rock dump show that metals are present in concentrations which are only moderately above the natural soils in this area. However, the rocks have a very similar mineralogy to the tailings in the Thane area which were mined from the same ore body. Extraction procedure toxicity tests on the Thane tailings showed that, even though low levels of metals were present in the tailings, there were no metals above the acceptable levels present in the leachate . There is no reason to expect that the tailings at this site pose any greater threat than the Thane tailings (the metals don't leach out).

2. Jualapa Tunnel A preliminary assessment was done in April 1989. The preliminary assessment examined potential mercury contamination of a drinking water source. The city and borough completed remedial activities which eliminated the potential for drinking water contamination. This was accomplished by sealing the sediments with grout and bypassing the contaminated areas with polyethylene pipe to avoid contact between the mercury and the water. The site will be reevaluated by the EPA and DEC during 1990. Based on the extent of the remedial action taken by the city and borough, no further remedial action will likely be necessary.

3. Channel Sanitation Landfill A preliminary assessment was conducted in September 1984. The preliminary assessment examined potential leachate problems which might cause heavy metal and organic contamination of drinking water supplies, as well as potential problems associated with incinerator ash disposal. The EPA and DEC conducted a site investigation and did not find any major environmental

contamination associated with the site. As a result of the site investigation, no further action was recommended by either agency. However, the site investigation did suggest that environmental contamination from the generation and migration of leachate appears possible and that routine site monitoring should be done to assess the magnitude of potential impacts.

4. Perseverance Mill A preliminary assessment was conducted by the EPA and DEC during January, 1985. The preliminary assessment addressed potential heavy metal contamination of soil and water due to mismanagement of the mine tailings. The EPA and DEC completed a site investigation during February 1988. No major environmental problems were identified and EPA determined that no further action would be necessary.

   However, the city and borough investigation which analyzed soil, sediment, and stream water samples revealed that the milling and tailings disposal activities have contaminated an area with maximum dimensions of 145 feet by 82 feet. Most of the tailings were removed from the site in the 1930's and reprocessed in the AJ Mine. The residual tailings average 1.5 feet in thickness.

   Although lead, zinc, arsenic, and mercury were detected in the entire area between the mill and the tailings disposal site, the only noticeable environmental impact was seen at the tailings disposal site. The level of contamination drops off rapidly away from the tailings area. Chemical analysis indicated that Gold Creek has not been impacted. Although lead was found to marginally exceed the limit for toxicity, there is no evidence, except for the lack of vegetation in the tailings disposal area, that any environmental impairment has occurred. The greatest concern is that hikers could be adversely affected by metals in the tailings disposal area. The city and borough placed a sign on the site advising hikers of the potential danger. The city and borough consulted with DEC about either removing the remaining tailings or capping them off at the site.

5. Red Samm Construction Site A preliminary assessment was conducted by the EPA and DEC during December 1987. The preliminary assessment evaluated potential groundwater contamination due to mismanaged organic solvents and polychlorinated biphenyls (PCBs). The preliminary assessment did not find potential environmental or public health problems. As a result, no further action was deemed necessary.

6. Thane Mine Dump A preliminary assessment was conducted during November 1987. The preliminary assessment examined environmental contamination that might have occurred as a result of heavy metals present in the mine tailings. In June 1988, the EPA and DEC conducted a site investigation which revealed the site does have low levels of lead, arsenic, zinc, and mercury. However, the EPA's national hazard scoring system, which ranks the relative significance of potential environmental problems, was not in place at the time of the site investigation. Therefore, the EPA and DEC intend to repeat the site investigation during 1990 using the EPA's new hazard ranking system. If the second site investigation reveals potential problems, the EPA will further delineate the extent of contamination by conducting a remedial investigation. It is possible this site could be listed on the Superfund National Priorities List and require remedial activities.

7. Treadwell Mines A preliminary assessment of this site was conducted during June 1989. The purpose of the preliminary assessment was to ascertain heavy metal contamination and potential cyanide soil contamination due to mismanagement of tailings and mining materials. The city and borough's contractor, Versar, Inc., studied this site and determined the heavy metal contaminants do not appear to be mobile. DEC recommended that EPA conduct a site investigation during 1990 to further identify environmental problems. The site investigation will use the new hazard ranking system to rank the relative significance of the potential environmental or public health problems.

8. Coughlin Island This remote FAA site was identified in February 1987 due to potential solvent or PCB contamination. Neither a preliminary assessment nor a site investigation has been conducted at this site. The EPA and DEC intend to conduct a preliminary assessment during 1990.

Copies of the preliminary assessments and site investigations for the above listed sites are available at the EPA and DEC Juneau offices.

Superfund's Impact on Juneau

How does Superfund affect Juneau? Superfund could directly impact the city and borough in four ways. First, if a parcel of land currently owned by the city and borough were identified as a Superfund site and placed on the National Priorities List, the city and borough could be liable for 10% portion of the clean up costs. The city and borough could be liable even though the city and borough did not cause the contamination.

Second, since the Superfund is intended to cleanup only the very worst of the nation's contaminated sites, it is quite possible that sites that do not make the Superfund National Priorities List may nevertheless be hazardous enough to warrant state or local remedial action.

Third, if the city and borough purchases or otherwise acquires land (e.g. by donation) and the land is later determined to be contaminated, the city and borough could be held liable for 10% of cleanup costs even though the city and borough did not cause the contamination.

Fourth, if the city and borough leases its property to a lessee who contaminates the site, the city and borough could be liable for a portion of the cleanup costs.

Recommendations

1. Prior to acquiring land, the city and borough should determine whether contamination exists from prior use and if so what potential liability exists if the land is acquired. If there is reason to believe the land might have been contaminated, the city and borough must aggressively seek a determination on whether or not contamination exists. This might entail hiring a qualified specialist to conduct an environmental audit. The city and borough may also want to consider the possibility of requiring the landowner to clean up the contamination prior to the transfer of title.

2. When acquiring land, the city and borough should assure the deed language protects the city and borough, to the extent feasible, from future liability that may arise because of contamination caused by the previous owner.

3. When the city and borough leases its land to another party, the lease language should protect the city and borough from liability for contamination caused by the lessee.

4. The city and borough needs to develop a heightened awareness the substantial economic liabilities that could result from the mismanagement of hazardous materials and hazardous wastes on municipally-owned land.

5. The city and borough should continue to actively participate in the review of federal and state investigations of potential Superfund sites within the city and borough, particularly those sites on municipally-owned land.

6. The city and borough should continue its independent environmental examinations of municipally-owned lands to identify any contamination problems.

7. The city and borough should work with DEC to determine what remedial actions, if any, should be taken at contaminated sites within the city and borough that are determined not eligible for Superfund cleanup monies.

"CRADLE TO GRAVE" HAZARDOUS WASTE MANAGEMENT

Regulatory Overview

What is RCRA? Hazardous waste first became regulated as a separate category of waste in 1976 when the Resource Conservation and Recovery Act (RCRA) was enacted by Congress. RCRA, and EPA's subsequent regulations that implemented it, are the primary federal laws that regulate the management and disposal of hazardous wastes in the United States.

RCRA is a "preventative" program as distinguished from the Superfund which is a "cleanup" program. RCRA requires the proper management of hazardous wastes in order to prevent the type of contaminated sites that the Superfund program is designed to clean up.

What does it mean to say that hazardous wastes are managed "cradle to grave"? Congress has amended RCRA twice since 1976, each time adding more requirements and complications to the law. Regulations adopted by EPA, beginning in 1980 and still continuing, establish the basic federal program that requires the management of hazardous wastes from the time of their production or "generation" until their ultimate disposal. This has become known as "cradle to grave" tracking.

What are the important features of hazardous waste management under RCRA? The EPA regulations contain criteria and listings that identify what wastes are regulated as hazardous wastes and establish requirements for facilities that generate, treat, transport, store, or dispose of hazardous wastes. Wastes must be properly characterized, labeled, inspected, and transported for treatment, storage, or disposal in a timely manner. Facilities that handle hazardous wastes must train their workers and prepare for emergencies. When wastes are transported "off-site" they must be accompanied by hazardous waste manifest that attests to each shipment's arrival at its designated destination within a prescribed time limit. Copies of these manifests are filed with DEC both before and after each shipment.

All handlers of hazardous waste must submit an annual report of their hazardous waste activities to DEC. All facilities that handle hazardous wastes are subject to inspections by EPA and DEC that determines their compliance with state and federal requirements.

What is a "hazardous waste"? The federal RCRA regulations that became effective on May 19, 1980 basically determined a solid waste to be hazardous in one of two ways:

1) It is on the EPA list of hazardous wastes (the EPA currently lists about 455 wastes).

2) It fails at least one of the following tests:

* Ignitability (will it readily burn?)
* Corrositivity (will it eat away at another substance?)
* Reactivity (will it react in a dangerous manner under commonly occurring conditions?)
* Extraction Procedures (EP) Toxicity (will it likely release eight specific metals or six specific pesticides when placed in a landfill?)

What problems arise when hazardous wastes are placed in solid waste disposal facilities? Hazardous wastes taken to solid waste disposal facilities for disposal often lead to health, safety, and environmental problems that can be difficult and expensive to correct. Waste collection workers can be injured by unseen and unknown hazardous wastes mixed in with municipal solid waste. Solid waste processing equipment can be damaged or destroyed by hazardous wastes. Numerous municipal landfills now are on the EPA's National Priorities List of contaminated sites for possible Superfund cleanup as a result of groundwater contamination problems from leaking wastes. In addition, national concerns about improper hazardous waste management, including household wastes, has caused Congress to consider imposing stricter requirements to keep all hazardous wastes out of landfills and other solid waste management facilities that are not equipped to manage them. These proposals are included in bills to reauthorize RCRA, which Congress is expected to be debate on during 1990.

Does RCRA regulate all hazardous wastes? Not all hazardous wastes are regulated by RCRA nor are all wastes, which initially appear hazardous, regulated as hazardous wastes. For example, Congress singled out polychlorinated byphenyls, commonly known as PCBs, for regulation under the Toxic Substances Control Act (TSCA) in 1977 and asbestos is regulated under the Clean Air Act. Both the state and federal hazardous waste laws do not regulate, among other things, the following wastes as hazardous wastes:

* Lead acid batteries destined for off-site recycling
* Used oil not mixed with other hazardous wastes
* Household hazardous wastes
* Wastes discharged into public wastewater treatment facilities
* Certain solid wastes from ore extraction and processing

It should be noted that wastes and materials not regulated by the RCRA hazardous waste regulations still present liability under Superfund laws, if mismanaged.

How are generators of hazardous wastes impacted by RCRA? The regulation of generators of hazardous wastes is a key component to the EPA program. Each generator must determine if the wastes it produces are hazardous wastes. The state and federal laws for generators set how long hazardous wastes can be stored before disposal and how wastes are labeled. Generators are also required to have contingency plans to ensure quick and effective response in the event of emergencies. Landfilling untreated wastes has been more stringently regulated since the 1984 RCRA amendments required EPA to set limits or ban this type of disposal.

Does the quantity of hazardous wastes generated make a difference in determining who will be regulated by RCRA? Generators of hazardous wastes are placed into one of the three following categories based on the amount of hazardous wastes they generate in a calendar month or accumulate at any one time:

1) Conditionally Exempt Small Quantity Generators - generate no more than 220 pounds of hazardous waste and no more than 2.2 pounds of acutely hazardous waste per month.

2) Small Quantity Generators - generate between 220 pounds and 2,200 pounds of hazardous waste and no more than 2.2 pounds of acutely hazardous waste in any month.

3) Large Quantity Generators - generate more than 2,200 pounds of hazardous waste or more than 2.2 pounds of acutely hazardous waste in a calendar month.

The regulations treat generators differently depending on the amount of hazardous waste produced. For example, large quantity generators and small quantity generators are required to obtain an EPA/DEC waste identification number and are required to comply with more stringent aspects of the regulations. On the other hand, conditionally exempt small quantity generators are not required to have an EPA/DEC waste identification number. However, they must have their hazardous wastes sent off-site to a recycling, treatment, or disposal facility or to a facility approved by the state for industrial or municipal wastes.

May a state administer the RCRA program? A state may administer the RCRA hazardous waste management program or a portion of it in lieu of the EPA, if the state develops and operates a hazardous waste regulatory program that is equivalent to the federal program and it receives authorization from EPA. Since 1980, approximately forty-four states have received some portion of federal program authorization. Although a state may take over EPA regulatory authority, it is extremely difficult to obtain full EPA authority at the state level, in part because states are unable to keep up with changes in federal law. Currently, there is no place in the RCRA regulatory program for further delegation to local governments.

Does the State of Alaska have authorization to administer RCRA? Alaska is not authorized to administer any part of the federal RCRA

program at this time. In 1984, the Alaska Legislature directed DEC to adopt regulations and take other steps necessary to obtain RCRA program authorization. To date, DEC has promulgated regulations that adopt the federal regulations in place as of July 1, 1986. DEC has been building the staff and experience necessary to receive EPA authorization. DEC now conducts a large portion of the RCRA work in Alaska on behalf of EPA, under the terms of interagency memorandum of agreement and an annual State-EPA agreement. DEC is planning to apply to the EPA for authorization of a basic RCRA program in 1992.

RCRA in Alaska

How much hazardous waste is generated in Alaska each year? DEC estimates that approximately 2,000 tons of hazardous wastes are generated each year in Alaska mostly by military and other government facilities and by large businesses. This figure can be put into perspective by comparing it to the national figure. An estimated 275 million tons of hazardous wastes are generated in the United States each year.

What happens to Alaska's hazardous wastes? Currently, there are no commercial hazardous waste treatment, storage, or disposal facilities in Alaska. Alaska's hazardous wastes are shipped for treatment, storage, or disposal to authorized facilities in other states. In November 1989, DEC presented a preliminary report entitled, "Hazardous Waste Facilities in Alaska," to the Governor and the Alaska Legislature. In this report, DEC reviewed the status of hazardous waste production nationwide in Alaska. The relatively small amount of hazardous waste produced in Alaska is probably insufficient to support a commercial treatment/storage/disposal facility, which requires a steady flow and a larger volume of wastes in order to operate economically. DEC, therefore, is recommending the establishment of one or more networks of community collection and transfer facilities for these wastes. DEC is now soliciting public comment on the report and its recommendations and holding public meetings around the state to explain and discuss the report.

What is being done in Alaska to ensure proper disposal of household hazardous wastes? Household hazardous wastes are not regulated by RCRA. However, the cumulative effect of households disposing of their hazardous wastes in their local solid waste collection facility could pose potential problems. To address that concern, Alaska, along with many other states and municipal governments nationwide, are now sponsoring annual hazardous waste collection projects. DEC has encouraged communities to participate in its annual Household and Small Business Hazardous Waste Collection Project, also known as "Spring Cleanup." As many as eight communities in the state have participated each year since the program began in 1983. The Municipality of Anchorage has gone beyond the once-per-year collection program and has established a state-of-the-art, permanent collection facility.

How was the Anchorage hazardous waste collection facility established? The Municipality of Anchorage constructed and opened a permanent hazardous waste collection and transfer facility, in conjunction with the construction of a new municipal solid waste landfill. In July, 1989, committee members DiTraglia and Mach toured the facility. The collection facility was constructed due to concerns about the disposal of hazardous wastes into the municipal solid waste landfill and the municipal sewer system. This facility is operated for the collection of household and small business hazardous wastes, as well as closely associated wastes such as used oil. The facility was constructed at a capital cost of approximately $1,000,000. The annual operating cost is estimated to be $500,000. Construction of the hazardous waste collection facility was funded as part of the $25,000,000 landfill project from a municipal bond and a state grant. Operation of the facility is supported through use fees and a portion of the municipal sewer fees. Although constructed and owned by the municipality, the facility is operated by a contractor. Wastes collected at the facility are packaged properly and shipped to waste recycling, treatment, storage, and disposal facilities in other states.

RCRA in Juneau

How does RCRA affect Juneau? In Juneau, 21 facilities have notified EPA and DEC that they generate less than 2,200 pounds of hazardous wastes per month. These facilities are either the small quantity generators or the conditionally exempt small quantity generators. The number of facilities that have notified DEC and EPA is not necessarily a good indicator of the volume of waste that may be produced, since a facility may produce waste only sporadically or may have notified EPA because of a single instance of hazardous waste generation. Based on per capita data from other locations outside Alaska, DEC estimates that Juneau's small quantity generators and conditionally exempt small quantity generators may produce approximately 58 tons of hazardous wastes per year.

What is the impact of household hazardous waste in Juneau? DEC estimates that between 70 and 350 tons of household hazardous wastes are generated in Juneau each year. Much of this weight may be attributed only to packaging, which would not be managed as hazardous waste. These wastes likely go to Juneau's local incinerator.

What is in Juneau's household hazardous waste? The city and borough and DEC have cosponsored "Spring Cleanup" days in five of the last six years. In 1989, Juneau's Spring Cleanup collected 65 drums of hazardous waste in Juneau. The types and amounts of waste collected in 1989 illustrate the contents of local household hazardous and related wastes:

37 drums of flammable liquids
1 drum of chlorinated solvents
3 drums of corrosive liquids
8 drums of hazardous waste solids
6 drums of used oil
1 drum of aerosol pesticide
2 drums of aerosol paints
4 drums of poisons
2 drums of oxidizers
approximately 120 batteries

These wastes, if not collected during the Spring Cleanup, could have been improperly disposed of in the local incinerator.

How would Juneau benefit from reducing the production of hazardous wastes at the source? Waste reduction efforts may achieve the following:

* Reduce the need for area-wide solid/hazardous waste treatment and disposal

* Reduce the need for pollution control expenditures

* Avoid transferring one form of pollution for another (e.g., transferring a groundwater pollution problem to an air pollution problem by incinerating instead of landfilling).

* Improve workplace safety

* Reduce the liability associated with the use and management of hazardous materials

* Reduce product waste management costs

Recommendations

1. The city and borough should continue to provide the means and incentive for Juneau's citizens and businesses to properly dispose of household and other hazardous wastes.

    * The city and borough should continue participating in the annual jointly sponsored city and borough-DEC Spring Cleanup.

    * The city and borough should investigate the feasibility of establishing a year-round hazardous waste collection facility, either for household and small business waste or for all quantities of hazardous wastes. Discuss with DEC the possibility of Juneau serving as a regional collection center.

2. The city and borough should aggressively begin an education and public information program with emphasis placed on reducing hazardous wastes at the source and on proper methods for hazardous waste disposal.

3. The city and borough should adopt an integrated waste management plan to effectively and safely handle Juneau's hazardous and solid waste streams. An integrated waste management plan will contain some or all of the following components, arranged in order of emphasis:

   * Source waste reduction

   * Recycling

   * Incineration

   * Landfilling

Regulatory Overview

Which mine wastes are considered hazardous wastes? The Resource Conservation and Recovery Act (RCRA) regulates the disposal of those mine wastes which have been identified as hazardous wastes. A mine waste is determined to be a hazardous waste if the volume or type of waste meets the definition of any of the hazardous wastes identified on several of the federal hazardous materials lists, such as SARA Title III, CERCLA, etc. Typically, a mining operation will generate such hazardous wastes as solvents, oils, grease, and paints. These types of hazardous wastes are generated during the mining, milling and maintenance operations of the mine and are similar to hazardous wastes generated by other businesses and households.

Are mine tailings regulated as a hazardous waste under RCRA? High volume wastes which include mine tailings, overburden dumps and leach dumps are not currently regulated under RCRA. These particular aspects of a mining operation pose a unique regulatory challenge: what is the best disposal method for large volumes of waste which may contain low levels of toxins? Through its studies, the EPA is attempting to determine the hazards of high volume mine wastes. The EPA is now developing regulations under RCRA to address high volume mine wastes.

What are the elements of the proposed EPA regulations? The proposed EPA regulations will require approved subsurface discharge monitoring plans and corrective action plans. Corrective action plans will identify appropriate action to be taken in instances when problems develop from mine tailings, overburden dumps, and leach dumps. The proposed regulations will also address closure, post-closure and financial assurance plans. DEC is actively involved in the review and development of these regulations through its participation in the Western Governors Association's Mine Waste Task Force.

Are mine wastes subject to Superfund regulations? It is important to note that Superfund's liability does apply in instances when mismanaged hazardous mine wastes have contaminated a site.

What regulations govern the storage and transportation of hazardous materials used in mining operations? The EPA's Superfund Amendment and Reauthorization Act (SARA Title III) addresses toxic chemical management and releases. The regulations require certain suppliers, manufacturers or users to notify local emergency planning groups of the use of certain chemicals, their quantities and where the materials are stored. Mining companies are required to comply with emergency planning and emergency notification sections of SARA Title III.

U.S. Department of Transportation (DOT) regulations control land transportation of hazardous materials. The U.S. Coast Guard regulates the marine shipment of hazardous materials.

Impacts on Juneau

Do the existing and pending laws and regulations provide Juneau adequate protection? The committee examined the existing and pending laws and regulations pertaining to mine waste, including the city and borough's mining ordinance. It was the committee's opinion that the mine waste issues are being adequately addressed by the existing and pending laws and regulations and by the multi-agency review process which is currently examining the proposals to reopen the AJ Mine and other Juneau area mines.

Mining companies are not required under SARA Title III to participate in community right-to-know and chemical inventory reporting and disclosure. However, most mining companies voluntarily participate in this program. The information provided to local governments by participating companies is considered especially helpful to emergency responders such as fire fighters and medical staff.

The increase in mining activities in the Juneau area will likely cause an increase in hazardous materials being brought into Juneau.

Recommendations

1. The city and borough should work with DEC to stay abreast of the pending federal regulations that would impose new requirements on mines producing high volume mine wastes (mine tailings, overburden dumps, and leach dumps) to ensure the final regulations satisfy the city and borough's interests.

2. The city and borough should encourage local mining companies to participate in community right-to-know and the chemical inventory reporting system developed under SARA Title III.

MEDICAL WASTE MANAGEMENT

Overview

What is medical waste? In its first interim management report to Congress entitled "Medical Waste Management in the United States" (1989), the EPA defined medical waste as "any solid waste which is generated in the diagnosis, treatment (e.g. provision of medical services), or immunization of human beings or animals, in research pertaining thereto, or in the production or testing of biologicals."

Is medical waste dangerous to the public? Only certain types of medical waste are considered infectious and it is that part of the medical waste stream which has received so much public attention in recent years. Experts and health care professionals have expressed opinions that any health hazards posed by medical waste are occupational and that actual threats to the general public are minimal, if any. There is currently much debate among experts, health care professionals and government regulators as to which components, if any, of the medical waste stream pose true health hazards. It is generally agreed among experts that the risk of infection is greater from household medical waste than from waste generated by the medical community. In many households, people routinely dispose of infected waste materials in their garbage and this waste is unregulated except as solid waste.

What is the best method of disposing of infectious waste? There are a variety or methods available for treatment of medical waste to render it noninfectious or less infectious, and unrecognizable. Research shows that incineration is the most effective technique.

Juneau's Medical Waste

How is medical waste handled in Juneau? Juneau's medical waste is collected and incinerated by Channel Corporations. Channel Sanitation offers the doctors, dentists and the various medical facilities in Juneau two specialized services for the disposal of infectious medical waste. One service is the "red bag" service in which Channel Sanitation picks up, transports, and incinerates specially marked cartons containing the medical waste. The other service is a "confidential burn" which allows medical community personnel to transport their own waste and place it directly into the incinerator themselves.

Channel Sanitation and the medical community, assisted by DEC, the Alaska Department of Health and Social Services/Division of Public Health, and the Alaska Department of Labor have agreed upon which parts of the medical waste stream should receive special handling. These wastes are now handled according to that agreement. The

agreement specifies that medical waste generators will assure that this waste is properly marked and disposed of separately from the general solid waste stream.

How does the hospital handle its medical waste? Most of the medical waste in Juneau is generated by Bartlett Memorial Hospital. The hospital has its own incinerator and historically has burned its own waste. However, this incinerator has been declared inadequate by DEC due to air quality violations. A proposal to build a new incinerator at the hospital is now being considered. As an option to building a new incinerator, the hospital could instead subscribe to Channel Sanitation's pickup service.

Would a new medical waste incinerator at the hospital be advantageous? Channel Sanitation has offered to collect the hospital's waste for a fee ranging from $91,000-$106,000 per year. The range in the cost is due to different levels of service from which to select. The hospital administrator has estimated the cost of a new incinerator to be between $100,000 and $150,000. It appears that the cost of a new incinerator would be recouped in less than two years due to "avoided costs" of using Channel Sanitation's services.

Two other advantages should be noted. An incinerator located at the hospital would reduce the potential liability and risks of public exposure to the waste since there would be less transportation and less handling of the waste. Furthermore, the sanitation company employees would not be exposed to the medical waste.

Recommendations

1. Bartlett Memorial Hospital should install a new medical waste incinerator which meets federal, state and local environmental standards and which is large enough to accommodate future demand. The incinerator should be available as a medical waste disposal option to all of the Juneau medical community.

2. The Juneau medical community and Channel Sanitation should be encouraged to continue to work together and maintain agreement on which components of the medical waste stream present risks and to whom. Protective measures should be identified and implemented.

3. The city and borough should develop an information program to educate the general public about the risks of infectious household waste and proper disposal of such waste.

4. The city and borough should work with the Juneau medical community to examine the feasibility of establishing a program

to encourage diabetics and other needle users to return used needles to the hospital, doctors' offices, pharmacies or other designated locations. This would reduce the threat of injury by handlers of the solid waste stream.

HAZARDOUS MATERIALS EMERGENCY RESPONSE PLANNING AND COMMUNITY RIGHT-TO-KNOW

Regulatory Overview

What is SARA Title III? Under Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA TItle III), Congress mandated that the Governor of each state appoint a State Emergency Response Commission, which in turn must designate Local Emergency Planning Districts (LEPD's) and Local Emergency Planning Committees (LEPC's). Each LEPC is to collect and make available information on extremely hazardous substances within each district, and to prepare an emergency response plan to be used in the event of a hazardous material spill or leak.

Why is emergency response planning important? The Center for Disease Control estimates that in 1986 there were at least 587 serious releases of hazardous materials nationwide. These releases resulted in at least 115 deaths, 2,254 injuries, and 111 evacuations.

What is the membership of an LEPC? By law, an LEPC must include the following representatives of groups or organizations:

1. Elected state and local officials
2. Law enforcement
3. Civil defense
4. Firefighting
5. First aid
6. Health
7. Local environmental
8. Hospital
9. Transportation personnel
10. Broadcast and print media
11. Community groups
12. Owners and operators of facilities subject to the requirements of SARA Title III.

What are the elements of an emergency response plan? Under SARA Title III, an emergency response plan shall include:

1. Identification of hazardous materials facilities and transportation systems

2. Emergency response procedures

3. Designation of a community emergency coordinator and facility emergency coordinators

4. Procedures for reliable, effective, and timely notification of hazardous materials spills or leaks to designate persons and to the public

5. Methods for determining the occurrence and affected area of a hazardous material release

6. Description of emergency equipment and facilities subject to SARA Title III requirements and persons responsible

7. Evacuation plans in the event of a hazardous material release

8. Training of emergency responders

9. Methods and schedules for exercising the plan

Who is subject to SARA Title III regulations? A facility is subject to SARA Title III requirements if a threshold quantity of one or more hazardous substances on the EPA list is present at the facility. The facility must provide a Material Safety Data Sheet (MSDS) for each hazardous chemical used or produced to the State Emergency Response Commission, to the appropriate LEPC, and to the local fire department.

What is meant by "community right-to-know"? The LEPC must receive this information and make available MSDS's for each facility upon receiving a written request from anyone. This ensures that the general public has a right to know what hazardous chemicals exists (beyond minimum threshold quantities) within the community. This aspect of the law is referred to as "community right-to-know."

Impacts on Juneau

Would it be advantageous for Juneau to form an LEPD and LEPC? Although Juneau is not a heavily industrialized area, and therefore should not have a high incidence of hazardous materials releases, its isolation and distance from existing hazardous materials emergency response resources justifies the establishment of an LEPD, an LEPC and a local emergency plan. Juneau's current concerns with the location of bulk fuel storage tanks, the potentially rapid growth of mining activities, and its dependence on shipping for supplies, are examples of unique problems which require special attention when planning for a hazardous materials emergency.

Once established, an LEPC could also be used as an advisory committee to help develop a comprehensive emergency response plan for all potential disaster emergencies which may affect the Juneau area, including earthquakes and avalanches.

In addition, the LEPC could make recommendations for the prevention or mitigation of problems which may result from hazardous materials release, such as regulating transportation routes of certain hazardous materials, or determining the safest locations for storage or transshipment facilities.

Would Juneau be required to develop a response team capable of responding to all types of chemical emergencies? Development of an LEPC does not necessarily require Juneau to form a response team. However, the committee believes Juneau should have the capability to respond to chemical release emergencies likely to occur in Juneau. The local emergency plan would identify: the locations of existing or potential hazardous materials facilities or transportation modes; potential evacuation routes in the event of a threat to human populations; and other emergency resources, including response teams in Alaska or outside the state. Juneau also could coordinate a response plan with other communities in southeast Alaska, sharing the costs of developing hazardous materials emergency response resources, such as a response team.

Is emergency response planning addressed in Juneau's comprehensive plan? It should be noted that during the 1988 revisions to Juneau's comprehensive plan the fire protection policy was expanded to include emergency services. Implementation actions identified by the comprehensive plan include the completion of an emergency disaster management plan and establishment of an LEPC.

What happens if Juneau decides not to form an LEPD and LEPC? The State Emergency Response Commission (SERC), chaired by the commissioner of DEC, has requested that all organized boroughs and first class cities consider forming their own LEPD and LEPC. Those cities and boroughs which choose not to form an LEPC may be included in a regional plan under the direction of the Alaska Division of Emergency Services (ADES).

If Juneau chooses not to develop its own LEPC, its needs may not be addressed adequately in the larger regional plan developed by ADES. If a serious hazardous materials release occurs and Juneau has not formed its own LEPC, the city and borough could have significant liability under SARA Title III.

Regardless of the requirements of SARA Title III and availability of state funding, it is incumbent that Juneau begin planning for community emergency response.

Recommendations

1. The city and borough assembly should recommend that the City and Borough of Juneau be designated as a Local Emergency Planning District (LEPD) and nominate a Local Emergency Planning Committee (LEPC), under SARA Title III, to the State Emergency Response Commission (SERC). In addition to those representatives specified by law, the committee recommends that Juneau's LEPC include a representative from the U.S. Coast Guard. The LEPC would collect and make available information on extremely hazardous substances and would develop an emergency response plan to be used in the event of a hazardous material spill or leak. Additionally, the LEPC could assist in the following:

* Development of a comprehensive emergency response plan for all potential disaster emergencies which may affect the Juneau area, including earthquakes and avalanches.

* Making recommendations on regulating transportation routes of certain hazardous materials.

* Making recommendations in the determination of safest locations for storage or transshipment facilities.

2. The city and borough should purchase Apple Macintosh computer hardware to enable the fire department to use the Computer-Aided Management of Emergency Operations (CAMEO) software for hazardous materials emergency response operations.

3. Information on hazardous materials shipped to and from Juneau should be coordinated between the U.S. Coast Guard, the fire department, and other appropriate agencies as determined by the LEPC.

4. The city and borough should investigate the possibility of hiring an extra staff person in the fire department to coordinate implementation of SARA Title III.

HAZARDOUS MATERIALS TRANSPORTATION

Regulatory Overview

How is the transportation of hazardous materials regulated? The U.S Department of Transportation (DOT), under the Hazardous Materials Transportation Act, regulates the shipment of hazardous materials shipped by commercial vehicles, railroads, water vessels, and aircraft. Regulations address the appropriate packaging, marking, labeling, and placarding of hazardous materials shipments. The act also identifies types of information which must be available in the vehicle or vessel, such as the Materials Safety Data Sheets (MSDS's). Shipments of both hazardous materials and hazardous wastes are regulated.

An emergency response guidebook, published by DOT and widely distributed to emergency response agencies, includes information on the types of placards required to be displayed on vehicles and railcars that contain hazardous materials shipments; information on the chemical properties of different hazardous materials; and information for emergency response agencies on actions to take following an accidental release.

Under the Hazardous Materials Transportation Act, the U.S. Coast Guard regulates the shipment of hazardous materials by vessels, including hazardous materials separation and fire protection requirements. The Coast Guard monitors the manifests of all ships and barges; the Material Safety Data Sheets; and the placarding of hazardous materials shipments.

The Federal Aviation Administration regulates the shipment of hazardous materials by aircraft. Although not applicable to the city and borough, the Federal Highway Administration regulates the interstate highway shipment of hazardous materials. The Federal Railroad Administration similarly regulates hazardous materials shipments via rail.

Impacts on Juneau

How are hazardous materials or wastes transported into Juneau? Hazardous materials, including hazardous wastes, can be brought into or shipped out of Juneau only by water or air, and they can be transported within Juneau on the road system. The ad hoc committee did not investigate the amounts or types of shipments of hazardous materials into or out of Juneau by air.

What types of marine vessels are bringing hazardous materials into Juneau? According to the Coast Guard Operations Officer, there are three main types of vessels transporting hazardous materials into Juneau:

1. Containerized barges (with containers going straight to shore)

2. Tanker barges or ships (such as Delta Western or Union Oil)

3. The MV Otter, which brings explosives to the boat ramp at North Douglas, where they are loaded onto contractors' trucks. (Members of the committee had some questions about why explosives are off-loaded onto trucks at North Douglas and driven into Juneau, but no one interviewed knew the answers).

What types of hazardous materials are being brought into Juneau? Typical hazardous materials cargo brought into Juneau on barges includes paint, flammable liquids, and other materials such as acids, caustics, poisons, and pesticides. Most items coming into Juneau are used here. There are approximately 300 shipments of hazardous materials into Juneau annually and almost all barges coming into Juneau contain some amount of hazardous materials.

According to officials of the Greens Creek Mine, approximately 100,000 pounds of explosives are stored at the mine for operations. These explosives and other supplies arrive by barges at the Alaska Marine Lines Dock where they are off-loaded, stored in the upper yard for up to 48 hours, and then loaded onto the Greens Creek barge to be sent over to the mine.

What types of hazardous wastes are being shipped out of Juneau? Hazardous waste shipments leaving Juneau in 1989 were the hazardous wastes from the annual DEC/city and borough household hazardous waste Spring Cleanup program, the National Guard, and one dry cleaner.

Are there areas of concern? U.S. Coast Guard officials raised three issues for possible attention:

1. Storage of hazardous materials at upland facilities and the potential for incompatible materials to be stored too close to each other. Upland storage of materials is not regulated by the Coast Guard.

2. Waste oil disposal. Most waste oil is not being shipped out - where is it going?

3. Lack of local hazardous materials emergency response capability in the event of a disaster here. The nearest top level Coast Guard hazardous materials strike team is located in San Francisco.

Currently, Coast Guard information on hazardous materials shipped into Juneau is not shared with the city and borough fire department, but it could be. Coast Guard officials did express willingness to provide assistance to the city and borough to address concerns relating to the transportation of hazardous materials and wastes.

Officials in the Alaska Department of Public Safety have expressed concern that commercial vehicles carrying hazardous materials cargo in Alaska are not adequately regulated or inspected, and consequently some vehicles transporting hazardous materials may not be adequately placarded.

Recommendations

1. There should be an ongoing process to share information between the U.S. Coast Guard and the city and borough fire department on hazardous materials shipments into Juneau.

2. Regulations pertaining to transshipment storage of hazardous materials in Juneau should be more actively enforced to ensure incompatible materials are not being stored too close to each other.

3. The city and borough should assess the enforcement of state and federal transportation laws. The city and borough should also investigate the possibility of:

    * Requiring escort vehicles for transporters of certain extremely hazardous materials

    * Restricting the transportation of certain extremely hazardous materials through town to certain hours of the day or limiting them to certain routes

4. The city and borough should investigate the off-loading of explosives onto trucks at the North Douglas boat ramp to determine if that is the safest way to bring them into the Juneau area.

SITING FACILITIES

Regulatory Overview

What is the role of local government in siting facilities? Whereas many other aspects of hazardous materials and hazardous waste management are regulated by federal and state laws, the siting of facilities that handle hazardous materials and hazardous wastes is largely a responsibility of local government. Through its planning efforts and zoning regulations, local government has the opportunity to direct where facilities that handle or generate hazardous products will be permitted to locate and operate within a community.

How does Juneau's comprehensive plan address the siting of facilities that use hazardous materials? When Juneau's comprehensive plan was updated in 1988 a new policy statement was added to address concerns pertaining to use of hazardous materials within the borough. Policy 26A states, "it is the policy of the ...(city and borough) to assist in the identification and mitigation of impacts associated with hazardous materials." The comprehensive plan identifies several actions for implementing that policy, including one that states the city and borough shall consider alternative siting and/or mitigation measures in approving permits for new development.

The siting of facilities that use hazardous materials is also discussed in Policy 46 of the comprehensive plan which provided policy on commercial and industrial expansion. Specifically, the plan states the city and borough will:

* Evaluate existing commercial and industrial uses which require storage of hazardous materials to determine need for possible relocation or other mitigative measures.

* Develop incentive plans for industries to centralize in designated industrial districts. For example, incentive for fuel tank farms and propane storage facilities to be centrally located away from residential areas.

How do Juneau's zoning regulations address hazardous materials? The current city and borough zoning regulations segregate land uses according to such factors as the intensity of use and other traditional zoning criteria which are based on the compatibility of different uses within a given area. The current city and borough zoning regulations do not directly address the issue of whether or not a particular use involves hazardous materials or hazardous waste, except for the following reference:

> 4 CBJAC 050.020 (e) identifies performance standards in commercial and industrial zones and prohibits the emission of obnoxious odors or toxic or corrosive fumes or gases.

In addition, the Table of Permissable Uses (CBJ 49.25.300) notes that the manufacture and storage of chemicals and similar industrial activities, require a conditional use permit. Such activities are restricted to only a few zoning designations. Bulk fuel storage is restricted to Industrial or Waterfront Commercial/Industrial zones and requires a conditional use permit.

The Table of Permissable Uses gives the Community Development Director discretionary power in determining whether a proposed industrial use, not specifically listed, shall require a conditional use permit. A facility proposing to use large quantities of hazardous materials or to generate hazardous wastes would probably be required by the Community Development Director to obtain a conditional use permit.

In what other ways is the city and borough addressing the hazardous materials issue? The city and borough is currently examining a comprehensive list of sites in order to identify a preferred location for a new bulk fuel storage facility. Public safety will be one of the criteria considered during the site evaluation.

The city and borough fire department is responsible for enforcing the Uniform Fire Code which addresses the separation of hazardous materials at facilities.

Concerns

What were the committee's concerns? The committee was concerned that although a facility using or storing large quantities of hazardous materials or extremely hazardous materials may initially be located in an isolated area, over the years the area surrounding the facility could develop as the community expands. Eventually, the facility may be in the midst of a highly populated area and pose a significant threat to public safety.

Yet another concern was the transportation of hazardous materials within the city and borough along the Juneau road system. This problem is also discussed in the "Hazardous Materials Transportation" section of this report. However, one aspect of the transportation discussion merits additional comment here. The committee identified a need to site facilities in a manner that reduces the transportation of hazardous materials through highly populated areas such as downtown and the Mendenhall Valley.

The committee was also concerned about the potential for incompatible hazardous materials to be stored, unsegregated, at the upland storage yards of marine transporters. This is not regulated by the U.S. Coast Guard. It is however, addressed in the Uniform Fire Code. The fire department indicated that although this matter is adequately addressed in the Uniform Fire Code, the fire department's limited staffing makes it difficult to actively enforce the code.

Additionally, it was the committee's opinion that the city and borough planning commission should examine the potential use or handling of hazardous materials during its review of conditional use permit applications. The planning commission may deny a conditional use permit and through this ability, the commission holds considerable power to determine the location of industrial facilities. The committee would like to see a heightened awareness of the dangers associated with the use of hazardous materials, such as requiring the disclosure of this type of information in the conditional use permit application.

Recommendations

1. The city and borough should examine its zoning code to determine if the siting of facilities using or storing large quantities of hazardous materials should be further regulated through the city and borough's zoning powers. The evaluation should determine ways to improve public safety by ensuring that facilities that pose a danger are located away and remain isolated from populated areas, as much as possible.

2. Commercial, as well as industrial facilities, using large quantities of hazardous materials or extremely hazardous materials should be specifically mentioned in the Table of Permissible Uses and should require a conditional use permit. Disclosure of the use of hazardous materials or the generation of hazardous waste should be required in the conditional use permit application.

3. The city and borough should examine the possibility of adding a staff position to the fire department to provide increased enforcement of the Uniform Fire Code. This would help ensure that the hazardous materials are being properly stored at upland facilities. It is envisioned that the person in this position would also be responsible for implementing SARA Title III.

4. The city and borough should evaluate existing commercial and industrial uses which require storage of hazardous materials to determine need for possible relocation or other mitigative measures.

5. The city and borough should develop incentive plans for industries to centralize in designated industrial districts. For example, an incentive plan should be developed for fuel tank farms and propane storage facilities to be centrally located away from residential areas.

6. The city and borough should consider alternative siting and/or mitigation of impacts associated with hazardous materials in approving permits for new development.

PUBLIC EDUCATION AND INFORMATION

Overview

Why is public education important? People in Juneau, as elsewhere, need to understand that they play a vital role in hazardous materials and waste management. They need to understand the hazards, risks, and costs associated with the use of hazardous materials and the production of hazardous wastes, as well as the environmental consequences of mismanaging these materials and wastes. People also must know how to properly manage household materials and wastes, what products can be substituted for hazardous materials and what they can do to reduce and recycle hazardous wastes.

Current Education Efforts

What measures are currently being taken to educate the public? It was beyond the scope of the committee to conduct a survey of existing educational efforts, however the committee identified several noteworthy programs or projects developed at a national, state or a local level, which serve as helpful examples of what can be done.

The New Hampshire-based, non-profit organization, Environmental Hazards Management Institute has developed a household hazardous waste wheel. The waste wheel is intended to be an educational tool for consumers. It identifies household products that may contribute to pollution when improperly discarded. It also provides information on ways to reduce the amount of household hazardous materials by recommending specific non-hazardous materials that can be substituted for the hazardous materials. These can be purchased and distributed to local residents, as DEC now does statewide.

The Anchorage-based, Alaska Health Project conducts community workshops throughout the state to inform the public about hazardous wastes. The Alaska Health Project also produces a newsletter on waste reduction.

The local Fred Meyer store is participating in a program to assist consumers in identifying "Earth friendly" products and packaging. "Earth friendly" logos are being placed on the shelves help consumers distinguish the "Earth friendly" products from other options.

Recommendations

1. The city and borough should conduct community waste minimization workshops and promote product substitution, recycling, and reuse.

2. The city and borough should disseminate information via the media about the proper disposal of such household wastes as used oil, paint, batteries, chemicals, and infectious wastes.

3. With the cooperation of the University of Alaska Southeast, the city and borough should incorporate information about proper management of hazardous materials and wastes into university programs.

4. The city and borough should identify a group of knowledgeable people who are able and willing to speak to groups within the community on local and state hazardous materials and waste issues.

5. The city and borough should investigate providing information on hazardous materials and waste issues on utility bills.

6. With the cooperation of the school district, the city and borough should:

   * Establish a Natural Resources Month in the local schools (similar to the Fairbanks program) that features speakers who could address hazardous materials and waste issues, among other topics

   * Develop a curriculum kit for use in the schools to educate children about hazardous materials and wastes

7. The city and borough should disseminate information about the proper disposal of hazardous wastes and emergency planning to local businesses.

8. The committee further recommends that funds be appropriated for the various education efforts. The committee understands that $10,000 was designated to conduct a survey of the types and quantities of hazardous materials and waste in the community. It is the committee's opinion that the benefits of such a survey may not be worth the cost. DEC's estimate of the amount of hazardous wastes generated in Juneau is considered sufficient for developing hazardous waste management strategies. Although a more precise figure of Juneau's hazardous waste volume might be possible by conducting a survey, it is committee's opinion that recommended management strategies would remain the same. Therefore, the funds for the proposed hazardous materials and hazardous waste survey may be better spent on educating Juneau's citizens, as recommended above. Regardless of the funding source, it is the committee's view that the assembly should appropriate funds sufficient to develop a comprehensive hazardous materials and hazardous waste education and public information program in Juneau.

9. The city and borough assembly should create a standing committee which would focus on waste management issues, including:

* Household hazardous wastes
* Medical wastes
* Mine wastes
* Superfund investigations
* Recycling
* Sludge disposal
* Public education and information

This would be a second committee distinct from the proposed Local Emergency Planning Committee (LEPC) which would address emergency response planning issues.

APPENDIX A

DEFINITIONS

DEFINITIONS

CAMEO: (Computer Aided Management of Emergency Operations) Computer program developed by the National Oceanic and Atmospheric Administration (NOAA) to manage data required under SARA Title III. Includes systematic MSDS data on common chemicals, air-plume modeling program, and pre-planning displays of chemical storage sites and amounts at designated sites, based on prior input of data received from facility managers.

CERCLA: The acronym for Superfund which stands for Comprehensive Environmental Response, Compensation and Liability Act of 1980. Superfund which is administered by EPA, provides funding for cleanups and emergency response actions for hazardous substances at the worst hazardous waste sites in the U.S. CERCLA set the first criteria for notification of emergencies involving hazardous substances. Reauthorized via SARA. (Codified as 42 USC 9601 et. seq.)

city and borough: City and Borough of Juneau.

community right-to-know: Legislation requiring disclosure of chemical information to local agencies and/or the public.

Comprehensive Environmental Response, Compensation and Liability Act of 1980: See CERCLA.

corrosivity: Ability of a chemical to cause viable destruction of, or irreversible alteration in, living tissue by chemical action at the site of contact.

DEC: Alaska Department of Environmental Conservation.

disposal: "The term disposal means the discharge, deposit, injection, dumping, spilling, leaking, or placing of any solid waste or hazardous waste into or on any land or water so that such solid waste or hazardous waste or any constituent thereof may enter the environment or be emitted into the air or discharged into any water including ground waters" (RCRA sec 1004(3)). This definition includes both accidental and planned discharge of hazardous waste into the environment. However, since only planned discharges can be permitted, a "disposal facility" is a facility which intentionally discharges hazardous wastes or its constituents and for which these wastes and constituents remain after facility closure (40 CFR 260 subpart B(2) and 18 AAC 62.910).

DOT: U.S. Department of Transportation, the federal agency responsible for regulating transportation by air, water or land. Sets packaging, labeling, and other safety rules for transporting hazardous materials.

"Earth friendly" product or package: Identification system underway at local Fred Meyer store to assist consumers in distinguishing products and packaging made by an environmentally safe process, made from recycled materials, that can be recycled, are degradable or are biodegradable.

EPA: The U.S. Environmental Protection Agency, which was established in 1970; the federal agency with direct responsibility for the implementation of Title III and the primary CERCLA agency.

EP Toxicity: (40 CFR 261.24 and 18 AAC 62.020) This criteria defines a procedure to stimulate leaching of toxic chemicals from land disposition into groundwater. If the result of this test procedure yields concentrations greater than the allowable value for specified metals and hydrocarbons, then the waste exhibits EP toxicity.

FAA: Federal Aviation Administration, the federal agency responsible for regulating transportation of hazardous materials in aircraft.

fire department: A paid or voluntary professional fire department with jurisdiction over local emergency response; receives reports from facilities under SARA Title III.

generator: Any person on site, a firm or facility whose act or process produces hazardous wastes, and, in a month's time produces or accumulates and disposes of over 1000 kilograms of wastes. Farmers, homeowners and commercial retail establishments are not considered to be generators.

hazardous materials: Any substance or material in a particular form or quantity which the Secretary of Transportation finds may pose an unreasonable risk to health, safety and property. Substances so designated may include explosive, radioactive materials, etiologic agents, flammable gases. Defined via rulemaking process, under authority of PL 93-633. In general terms, any substance harmful or injurious to humans, animals, economic crops, structures, environment, waterways, highways, related improvements or other public or private property.

hazardous substance: Defined under two statutes:

* Clean Water Act (33 USC 1251 et. seq.) - definition focuses on prevention of spills of materials identified as hazardous substances into the navigable waters of the U.S. Initial regulations promulgated by the U.S. Department of Transportation include approximately 300 specific chemicals identified by EPA under Section 311 of the Clean Water Act as posing a threat to waterways when spilled. Many of these chemicals had already be regulated in transportation because of hazards unrelated to their pollution potential.

* Comprehensive Environmental Response, Compensation, and Liability Act (Superfund) (42 USC 9601 et. seq.) - as defined by Section 101(14):

    1. any substance designated via the Federal Water Pollution Control Act
    2. any element, compound mixture, solution of substance designated pursuant to CERCLA
    3. any hazardous waste having the characteristics identified under or listed pursuant to the Solid Waste Disposal Act but not including any waste the regulation of which under the Solid Waste Disposal Act have been suspended by Act of Congress
    4. any toxic pollutant listed under Section 307(a) of the Federal Water Pollution Control Act
    5. any hazardous pollutant listed under Section 112 of the hazardous air pollutants listed under Section 112 of the Clean Air Act
    6. any imminently hazardous chemical substance or mixture with respect to which the Administrator has taken action pursuant to Section 7 of the Toxic Substances Control Act.

The term <u>does</u> <u>not</u> include petroleum including crude oil or any fraction thereof that is not otherwise specifically listed or designated as a hazardous substance, and the term <u>does</u> <u>not</u> include natural gas, natural gas liquids, liquefied natural gas, or synthetic gas usable for fuel, or mixture of natural gas and such synthetic gas.

hazardous waste: Discarded materials that EPA regulated under authority of the Resource Conservation and Recovery Act (RCRA) (42 USC 6901 et. seq.) because of public health and safety concerns. Under RCRA, a hazardous waste is fully regulated from "cradle to grave" -- that is, from its time of creation until properly discarded.

high volume mine waste: Mine tailings, overburden dumps, and leach dumps.

infectious waste: Waste material that could harbor infectious agents transmissible to humans or animals, including:

* discarded cultures and stocks of infectious agents, vaccines, culture dishes and devices used to inoculate and mix cultures (cultures and stocks);

* discarded tissue, organs and body parts (pathological waste);

* discarded blood and blood components;

* discarded used sharps (hypodermic needles, syringes, pipettes, scalpel blades, blood vials, needles with attached tubing, and broken and unbroken glassware in contact with infectious agents);

* discarded material from animals inoculated with infectious agents during research, production of biological agents, or testing pharmaceutical agents (animal waste); and

* discarded excretions and secretions from humans and animals with highly communicable diseases (isolation waste).

LEPC: (Local Emergency Planning Committee) Has responsibility for drafting emergency plans for a district under SARA Title III. The LEPC is responsible for collecting and making available information on extremely hazardous substances within its LEPD, and to prepare an emergency response plan to be used in the event of hazardous material spill or leak.

LEPD: (Local Emergency Planning Districts) To be formed by a State Emergency Response Commission which is created by the governor of each state, as mandated by Congress under SARA Title III.

Local Emergency Planning Committee: See LEPC.

Local Emergency Planning District: See LEPD.

Material Safety Data Sheet: See MSDS.

medical waste: Any solid waste which is generated in the diagnosis, treatment (e.g. provision of medical services), or immunization of human beings or animals, in research pertaining thereto, or in the production or testing of biologicals.

MSDS: (Material Safety Data Sheet) A work sheet required by the U.S. Occupational Safety and Health Administration (OSHA) 1910.1200 Hazard Communication Standard containing information (name, characteristics, hazards, emergency first aid procedures, and health information) about hazardous chemicals in the work place; also contains recommended exposure limits, by such organizations as the American Conference of Governmental Industrial Hygienists. Required by SARA to be submitted to LEPC, SERC and local fire department by chemical manufacturer or importer as part of the hazardous chemical inventory reporting requirements.

National Priorities List: A list of hazardous waste sites posing serious threats to health and the environment and eligible for EPA's Superfund program. See Superfund, CERCLA.

placard: Printed or graphic descriptive material affixed to motor vehicles, rail cars, freight containers, portable tanks, cargo tanks, or tank cars containing hazardous materials, as required by DOT. A placard is required for each type of hazardous material being transported.

RCRA: (Resource Conservation and Recovery Act of 1976) A federal law governing hazardous and non-hazardous waste. Established a framework for proper management and disposal of all wastes; directed EPA to identify hazardous wastes, both generically and by listing specific wastes and industrial process waste streams. Generators and transporters are required to use good management practices and to track the movement of wastes with a manifest system. Owners and operators of treatment, storage, and disposal facilities also must comply with standards. Also referred as cradle to grave tracking system of hazardous waste from generation to ultimate disposal.

reactivity: (40 CFR 261.23 and 18 AAC 62.020) Wastes which: 1) readily undergo violent chemical change; 2) react violently or form potentially explosive mixtures with water; 3) generate toxic fumes in a quantity sufficient to present a danger to human health or the environment when mixed with water, or in the case of cyanide or sulfide bearing wastes, when exposed to mild acidic or basic conditions; 4) explode when subject to a strong initiating force; 5) explode at normal temperatures and pressures; or 6) fit within the DOT's forbidden explosives, Class A explosives, or Class B explosives classifications.

recycling: The use of recovered resources.

release: Any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping or disposing into the environment (including the abandonment or discarding of barrels, containers, and other closed receptacles) of any Hazardous Chemical, Extremely Hazardous Substance, or CERCLA Hazardous Substance which enters the environment.

Resource Conservation and Recovery Act: See RCRA.

SARA: (Superfund Amendments and Reauthorization Act) A 1986 law whose Title III is the Emergency Planning and Community Right-to-Know Act.

SERC: (State Emergency Response Commission) Establishes a state's local emergency planning districts, appoints corresponding LEPCs and reviews local emergency plans.

solid waste: Substance that may or may not be hazardous. Includes any garbage, refuse, or sludge from waste and water treatment plants and air pollution control facilities and includes solid, liquid, semisolid, or contained gaseous material. Also includes materials that are abandoned by being disposed of, burned for energy recovery, recycled, stored or treated before recycling, applied to or placed on the land in a manner that constitutes disposal, or used to produce a fuel.

State Emergency Response Commission: See SERC.

Superfund: Trust fund established under the comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and extended under the 1986 Superfund Amendments and Reauthorization Act (SARA) to provide money for cleanups associated with inactive hazardous waste disposal sites.

Superfund Amendments and Reauthorization Act: See SARA.

storage: Storage is defined as the containment of hazardous waste in such a manner as not to constitute disposal. Storage may range from a temporary basis to an extended number of years. The key point is that storage is not the final disposition of a hazardous waste (RCRA sec. 1004(33)).

Title III: The third part of the Superfund Amendments and Reauthorization Act of 1986 (SARA) enacted into law on October 17, 1986. Title III, also known as the Emergency Planning Community Right-to-Know Act of 1986, requires local and state governments to participate in emergency planning and response activities. The Act also establishes procedures for federal, state, and local government to provide the public with information on hazardous chemicals present and released into local communities. There are four major sections of Title III: Emergency planning (Sections 301-303); emergency notification (Section 304); community right-to-know and chemical inventory reporting (Sections 311-312); and toxic chemical release inventory requirements (Section 313).

TSCA: Toxic Substances Control Act.

treatment: The term treatment is defined in RCRA sec 1004(34) in considerable detail. An activity which makes a hazardous waste non-hazardous or makes a hazardous waste safer, more amenable for future activity, or decreases the volume is considered treatment. Treatment does not constrain activities relating to hazardous waste but gives considerable latitude in consideration of future activity.

APPENDIX B

RESOLUTIONS 1350 AND 1398

Presented by: Committee on Committees
Introduced: 01/23/89
Drafted by: B.J.B.

RESOLUTION OF THE CITY AND BOROUGH OF JUNEAU, ALASKA

Serial No. 1350

A RESOLUTION ESTABLISHING AN AD HOC COMMITTEE ON HAZARDOUS MATERIALS AND HAZARDOUS WASTE MANAGEMENT IN THE CITY AND BOROUGH OF JUNEAU.

WHEREAS, there is a growing concern in the community regarding the generation, storage, and disposal of hazardous materials and hazardous wastes in the city and borough, and

WHEREAS, numerous nationwide issues, such as concern with the proper disposal of infectious waste, the occurrence of accidents involving hazardous chemicals, the disposal of industrial waste, the clean-up of hazardous waste sites, and the release of hazardous substances into the environment, have contributed to an increase in the public's awareness of the need to have in place adequate means for handling hazardous materials and wastes and responding to incidents involving hazardous substances, and

WHEREAS, the city and borough does not currently have a hazardous waste management plan, and

WHEREAS, the Assembly has determined that an ad hoc committee should be established to study and make recommendations on policies and plans for the management of hazardous materials and hazardous wastes in the city and borough;

NOW, THEREFORE, BE IT RESOLVED BY THE ASSEMBLY OF THE CITY AND BOROUGH OF JUNEAU, ALASKA:

1. Committee Established. There is established the Ad Hoc Hazardous Materials and Hazardous Waste Management Committee. The committee shall consist of five members appointed by the Assembly. The purpose of the committee is to make findings and recommendations to the Assembly and the city and borough administration on hazardous materials and hazardous waste management policies and plans for the city and borough. The findings and recommendations should focus on the following areas:

(a) Current Situation: An inventory of the quantity, types, and locations of hazardous materials and hazardous wastes in the city and borough, including infectious waste, commercial and industrial waste, petroleum and petroleum products, explosives, hazardous substances and chemicals, and household waste; and an assessment of the current methods of generation, storage, transportation, and disposal of hazardous materials and hazardous wastes in the city and borough.

(b) Education and Prevention: Methods of effective public education on minimizing hazardous waste generation and the proper methods for storage and disposal.

(c) Control of Small Quantities: Methods of managing nonregulated hazardous materials and hazardous wastes that are likely to be disposed of in landfills and sewers.

(d) Local Facilities: Alternatives, both public and private, for handling hazardous materials and hazardous wastes locally, including storage, collection, transportation, and disposal.

(e) Emergency Planning and Community Right-to-Know: Local implementation of the Emergency Planning and Community Right-to-Know Act -- Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA Title III).

(f) Permanent Committee: The need for, role, and composition of a permanent hazardous materials and hazardous waste management committee for the city and borough.

2. Report of Findings and Recommendations. The committee shall report its findings and recommendations to the Assembly and the citizens of Juneau by September 1, 1989. Upon presentation of the report, the ad hoc committee shall dissolve and the Assembly will determine whether to establish a permanent committee on hazardous materials and hazardous waste management.

3. Procedures. The rules of procedure for Assembly advisory committees as established by Resolution Serial No. 1180, as amended by Resolution Serial No. 1213, shall govern the conduct of business by the committee.

4. Staff Support. The lands and resources division of the manager's office shall be responsible for providing the committee with staff support and assistance.

5. Effective Date. This resolution shall be effective immediately upon adoption.

Adopted this 23rd day of January, 1989.

Mayor

Attest:

Clerk

Presented by: The Manager
Introduced: 09/11/89
Drafted by: B.J.B.

RESOLUTION OF THE CITY AND BOROUGH OF JUNEAU, ALASKA

Serial No. 1398

A RESOLUTION AMENDING RESOLUTION SERIAL NO. 1350 TO EXTEND THE TENURE OF THE AD HOC COMMITTEE ON HAZARDOUS MATERIALS AND HAZARDOUS WASTE MANAGEMENT.

WHEREAS, the Assembly, by Resolution No. 1350 adopted on January 23, 1989, established the Ad Hoc Committee on Hazardous Materials and Hazardous Waste Management in the City and Borough of Juneau, and

WHEREAS, the resolution provides that the committee shall report its findings and recommendations to the Assembly by September 1, 1989, and

WHEREAS, at its meeting on August 21, 1989, the Assembly Committee on Committees recommended that the Assembly extend the deadline for submission of the committee's report until February 12, 1990, and further recommended that the committee be requested to present an oral interim report to the Assembly on November 20, 1989, and

WHEREAS, an extension of the committee's tenure would be in the best interests of the community;

NOW, THEREFORE, BE IT RESOLVED BY THE ASSEMBLY OF THE CITY AND BOROUGH OF JUNEAU, ALASKA:

1. Paragraph 2 of Resolution Serial No. 1350 is amended to read:

> 2. Report of Findings and Recommendations. The committee shall report its findings and recommendations to the Assembly and the citizens of Juneau by February 12, 1990. Upon presentation of the report, the ad hoc committee shall dissolve and the Assembly will determine whether to establish a permanent committee on hazardous materials and hazardous waste management. The committee shall present an oral interim report at the regular Assembly meeting on November 20, 1989.

2. Effective Date. This resolution shall be effective immediately upon adoption.

Adopted this 11th day of September, 1989.

Mayor

Attest:

Clerk

APPENDIX C

MEETING MINUTES

MINUTES
AD HOC HAZARDOUS MATERIALS AND HAZARDOUS WASTE COMMITTEE
Wednesday, May 31, 1989
Conference Room - Juneau Downtown Library

Members Present: Mark Johnson, Jack Cottrell, Dave DiTraglia, Edward McKrill

Members Absent: Jeff Mach

Staff Present: Cindy Johnson and Steve Gilbertson, Lands and Resources

The committee decided that they would have regular meetings on the first and third Wednesdays of the month at 7:00 p.m. in the Juneau Downtown Library conference room. There was concern about meeting the September deadline for a report to the Assembly. The committee acknowledged that their work would take them through the fall and that they would have to ask the Assembly for an extension of time to complete the work.

There was a discussion of two important subject areas which the committee will have to address: hazardous materials (including an Emergency Response Plan) and hazardous wastes. A discussion followed about having separate subcommittees to address each subject.

The committee selected Dave DiTraglia to be its chairperson.

The committee members suggested that they try to generally address the important hazardous waste issues in the community and not try to do detailed studies of each issue. The report to the Assembly will identify the main hazardous waste issues and give recommendations on how the issues should be addressed (perhaps suggesting further study being needed).

The committee decided to have individual members give presentations on the subjects about which they are knowledgeable. E. McKrill will make a presentation on medical waste; D. DiTraglia on hazardous waste; M. Johnson on emergency response planning; J. Cottrell on mining waste; S. Gilbertson on "Superfund" investigations in Juneau. It was also suggested that future meetings include presentations from guests on waste oil, transportation of hazardous materials, the Channel Landfill, etc.

The first step for the committee is going to be to identify the various regulations dealing with hazardous materials, hazardous substances, and hazardous waste (eg. TSCA, RCRA, CERCLA), identify which agencies are responsible for implementation of those regulations, and develop a vocabulary list of pertinent terms and definitions.

The June 7, 1989 meeting will include a review of various video tapes provided by Jack Cottrell and Dave DiTraglia and a discussion of definitions. Dave DiTraglia will put together information on the various regulations for the June 21, 1989 meeting.

The meeting adjourned at 8:50 p.m.

MINUTES
AD HOC COMMITTEE ON HAZARDOUS MATERIALS AND
HAZARDOUS WASTE MANAGEMENT
Wednesday, June 7, 1989
Conference Room - Juneau Public Library

Members Present: Dave DiTraglia; Mark Johnson; Jeff Mach; Edward McKrill

Members Absent: Jack Cottrell

Staff Present: Cindy Johnson

Dave DiTraglia opened the meeting and requested members to review the minutes of the May 31 meeting. The minutes were approved. Chairman DiTraglia asked committee members to identify issues or topics they would like the committee to address at upcoming meetings. The following eleven topics were suggested:

1. Hazardous Waste Management
2. Recycling/Waste Reduction
3. Infectious Wastes
4. Mining Wastes
5. Superfund
6. Transportation of Hazardous Materials/Wastes
7. Emergency Response and Planning
8. Local Solid Waste Management
9. Hazardous Materials Siting/Planning
10. Public Education
11. OSHA Regulations/NIOSH

Using the list of topics as a starting point, the committee developed a tentative meeting schedule with dates, topics and speakers identified (see attachment).

Committee members agreed that the inventory of hazardous materials and hazardous wastes will provide critical information for developing a strategy for managing hazardous materials and wastes in Juneau. It was suggested that Juneau might use the DEC's statewide inventory, due for completion this October, as part of the groundwork for conducting a local inventory. Another suggestion was to use the Southeast Conference as a forum for Southeast Alaska communities to work together in the collection and transportation of hazardous wastes to disposal sites down south. The point was raised that it is unrealistic to anticipate the development of an approved hazardous waste disposal site in Alaska due to the low volumes of wastes generated in Alaska; focus should be on collecting and transporting the wastes to approved sites down south. On the subject of local emergency response planning, a suggestion was made that the committee, in its report to the assembly, describe the ideal emergency response system as well as a practical emergency response system suitable for a community the size of Juneau.

The meeting concluded with each member providing a brief biography of his work experience in hazardous materials and hazardous waste management.

The meeting adjourned at 9:00 p.m.

MINUTES
AD HOC COMMITTEE ON HAZARDOUS MATERIALS AND
HAZARDOUS WASTE MANAGEMENT
Wednesday, June 28, 1989
Assembly Chambers - Municipal Building

Members Present: Dave DiTraglia; Mark Johnson; Jeff Mach; Edward McKrill

Members Absent: Jack Cottrell

Staff Present: Cindy Johnson

Chairman DiTraglia opened the meeting and requested members to review the minutes of the June 7 meeting. Mark Johnson noted that the minutes did not reflect that he was going to be a coordinator for the October 4 meeting when emergency response planning is discussed. The minutes were changed by adding asterisks by Mr. Johnson's name to indicate he would be a coordinator for that meeting. With that correction made, the committee approved the minutes.

Cindy Johnson suggested that each speaker or group of speakers to come before the committee to discuss a particular topic be asked to provide a written summary of the key issues they have addressed and any suggestions they might have on how Juneau might best respond to those issues. These summaries of the issues and suggestions could help provide focus for future committee discussions as the committee begins to form recommendations for its report to the assembly. The committee was receptive to the idea.

Chairman DiTraglia indicated that the topic for this meeting and the July 5 meeting would be hazardous waste management. A video entitled "Business As Usual" was shown and then discussed. The movie identified several ways to address the hazardous waste problem including: recycling; reducing wastes at the source; and changing people's attitudes. According to the movie, the agreed preference is to reduce waste at the source, in other words, reduce the amount of waste created. Some companies such as General Dynamics have found new technology to replace old production systems and have substantially reduced their generation of hazardous wastes. Recycling also provides opportunities to reduce wastes. Recycling options have been enhanced by the development of industrial waste clearinghouses which help match industries needing certain materials with those industries seeking to dispose of the same. A substantial portion of the movie focused on thermal, chemical, biological and physical technologies which are being developed to destroy or reduce the hazardous quality of wastes already generated. The movie also stressed the need for improving public education and increasing public awareness of the problems surrounding hazardous waste.

Following the movie, Chairman DiTraglia explained the complexities of trying to define "hazardous waste." After many questions and considerable discussion, it was decided to continue this discussion at the July 5 meeting.

The meeting adjourned at 9:05 p.m.

MINUTES
AD HOC COMMITTEE ON HAZARDOUS MATERIALS AND
HAZARDOUS WASTE MANAGEMENT
Wednesday, July 5, 1989
Conference Room - Juneau Public Library

Members Present: Dave DiTraglia; Mark Johnson; Jeff Mach; Edward McKrill; Jack Cottrell

Staff Present: Cindy Johnson

Chairman DiTraglia opened the meeting and requested members to review the minutes of the June 28 meeting; the minutes were approved.

Chairman DiTraglia stated that this meeting would be a continuation of the June 28 meeting at which the Committee began its discussion of hazardous waste management; he indicated Jeff Mach would lead this part of the discussion.

Mr. Mach explained that the focus of the Alaska Department of Environmental Conservation (DEC) and the Environmental Protection Agency's (EPA) hazardous waste management program at this time is to create a uniform method of handling hazardous wastes, "cradle to grave" tracking regulations. The regulation of generators of hazardous wastes is a key component to the EPA program. The burden is on the generator to determine if it is producing hazardous wastes. The EPA has devised various categories for classifying generators of hazardous wastes based on the quantity of hazardous wastes produced. Laws which regulate generators dictate how long hazardous wastes can be stored before disposal and how wastes are labeled. Generators are also required to have contingency plans to ensure quick and effective response in the event of spills. Since the generator remains liable for hazardous wastes it produces until the wastes are destroyed, landfilling hazardous wastes is now an unpopular method of disposal.

When disposing of wastes, the generator must ship the wastes to an interim holding site or an approved disposal site along with the Uniform Hazardous Wastes Manifest. A sample manifest was shown to the Committee. All parties must sign the manifest including all transporters and the disposal site operator. The disposal site operator sends the original manifest back to the the generator who is required to keep it on file for three years. The entire disposal process, from generator to disposal site operator, must be completed within 35 days.

The Committee also discussed laws and regulations pertaining to transporters and Treatment, Storage or Disposal Facilities (TSD's). A key requirement of transporters is that transporters cannot let the wastes stop in transit for more than ten days. TSD's must obtain a permit from the EPA to operate and must comply with a rigid set of regulations which include worker training programs, contingency plans and record-keeping requirements.

The Committee shifted its focus to address what is happening in the field of hazardous waste management at the state level. Three distinctions were noted between the DEC regulations and federal regulations. First, Alaska has adopted federal regulations only as of July, 1986. Second, Alaska requires

generators, TSD's, and transporters to submit annual reports rather than biennual reports as required under federal regulations. Third, manifests must be submitted to DEC prior to shipment of hazardous wastes; DEC tracks the disposal of hazardous wastes.

The Alaska legislature has also directed DEC to complete a study assessing the current hazardous waste situation within the state and determining how best to deal with the situation. The state legislature has also mandated DEC to develop siting criteria which address both technical concerns and public participation.

Although a state may take over EPA regulatory authority, if a state adopts regulations at least as strict as the EPA regulations and after demonstrating that the state is able and willing to take on the responsibilities, it is extremely difficult to obtain full EPA authority at the state level, in part because states are unable to keep up with the many changes in federal law.

Following the discussion of state issues, the Committee next turned its attention to local hazardous waste management. An estimated 275 million tons of hazardous wastes are generated in the United States each year. Of that amount, approximately 1,500 tons are generated in Alaska, mostly at military facilities. Juneau generates relatively little hazardous waste. Due to the low volume of hazardous wastes in Alaska, it would be difficult to develop a waste treatment site (a costly undertaking) within the state. In the foreseeable future, hazardous wastes will continue to be shipped out of state.

Mr. Mach suggested Juneau could develop a more effective hazardous waste management program by pursuing the following recommendations:

1. Continue participating in the joint CBJ-DEC Hazardous Waste Clean Up Days, an annual clean up effort.

2. Set up a more permanent hazardous waste collection facility for conditionally exempt businesses and households.

3. Become active in educating the public about hazardous wastes: work with the schools (such as an existing program in Fairbanks); put on workshops (such as done by the Alaska Health Project); work with the University and/or community schools; prepare newspaper articles.

Chairman DiTraglia stated that ideally all solid wastes including hazardous wastes would be taken to one facility where they would be properly sorted and recycled, disposed of or destroyed. Short of the ideal solution, he suggested Juneau pursue something similar to the Anchorage program, as noted in Mr. Mach's second recommendation above.

The meeting adjourned at 9:00 p.m.

MINUTES
AD HOC COMMITTEE ON HAZARDOUS MATERIALS AND
HAZARDOUS WASTES MANAGEMENT
Wednesday, July 19, 1989
Conference Room - Juneau Public Library

Members Present: Dave DiTraglia; Mark Johnson; Jeff Mach; Jack Cottrell; Edward McKrill

Staff Present: Cindy Johnson; Steve Gilbertson

Guest Speakers: Jan Carlile (DEC); Irene Alexakos (EPA)

Dave DiTraglia opened the meeting and requested members to review the minutes of the July 5 meeting. A few changes for clarification were made and the minutes approved. Chairman DiTraglia and Jeff Mach gave a report on the Municipality of Anchorage Eagle River Hazardous Waste Collection Facility which they had recently toured.

The Anchorage facility collects only household hazardous wastes and wastes from businesses which generate less than 220 pounds of hazardous wastes per month (conditionally exempt small quantity generators). Due to the fact the facility is accepting only unregulated wastes, the facility if not considered a TSD and no hazardous waste permit is required. The facility cost approximately one million dollars to construct. An additional one million dollars are needed annually to operate the facility; this is a subsidized operation. The facility has been praised for its excellent design features including a good ventilation system and an outstanding containment system designed to protect against the spread of hazardous wastes in the event of spills. The Municipality of Anchorage hired a chemical waste contractor to operate the facility. Households are charged $5.00 per visit while small businesses are charged $1.00 per pound.

Chairman DiTraglia introduced guest speaker, Jan Carlile, who works on Superfund projects at the Alaska Department of Environmental Conservation (DEC). Ms. Carlile provided the Committee with a brief history of the Superfund program, distributed handouts which explained the Superfund investigation process and discussed the status of potential Superfund sites within the City and Borough of Juneau.

Established in 1980, the Superfund program addresses the clean up of abandoned or uncontrolled hazardous wastes sites, including short term remedial responses and long term solutions. Ms. Carlile provided committee members with a flow chart showing the process of Superfund investigations from initial site identification through actual clean up. Several points were brought up during the ensuing discussion. Any person can petition the Environmental Protection Agency (EPA) to put a site on the list of potential Superfund sites. After either the preliminary assessment or the site inspection, the EPA may recommend no further action be taken. In such instances, states may make a determination that site clean up is warranted and may elect to proceed with site clean up; however, Superfund monies would not be available for the clean up.

An important aspect of the investigation process is the Hazard Ranking System (HRS) Score, a scoring system in which the relative hazard of a site is judged by comparing it with other sites. An integral part of the scoring process is the assessment of impacts of a site on the public. Although the EPA never reveals the score, information used to derive the score is made available. A revision of the scoring system is currently being considered by the EPA.

During the final portion of the meeting, Ms. Carlile discussed the status of the eight potential Superfund sites within the City and Borough of Juneau. The eight sites include: the Rock Dump; Jualapa Tunnel; Channel Sanitation Landfill; Perseverance Mill; the former Red Samm Construction site; Thane Mine Dump; Treadwell Mines; and Coughlin Island.

At the close of the meeting, Irene Alexakos (EPA) pointed out that the proposed mining activities of Echo Bay are very near the Thane Dump, a site now being investigated under Superfund. She stated that under the revised EPA scoring system, she anticipates the Thane Dump will become a Superfund site.

Chairman DiTraglia summed up his concerns with a recommendation that the city and borough develop an awareness of the economic liabilities (specifically any city and borough liabilities) resulting from the mismanagement of wastes. He also expressed concern about potential liabilities at the Channel Sanitation landfill.

The meeting adjourned at 9:10 p.m.

MINUTES
AD HOC COMMITTEE ON HAZARDOUS MATERIALS AND
HAZARDOUS WASTES MANAGEMENT
Wednesday, August 2, 1989
Conference Room - Juneau Public Library

Members Present: Dave DiTraglia; Mark Johnson; Jeff Mach; Jack Cottrell; Edward McKrill

Staff Present: Cindy Johnson; Steve Gilbertson

Dave DiTraglia opened the meeting and requested members to review the minutes of the July 19, 1989 meeting. The minutes were approved.

There was a brief discussion of establishing a contingency fund for the closure of the Channel Landfill. This matter will be discussed further at a future meeting on solid waste disposal.

Jack Cottrell lead the main discussion of the evening concerning mining waste.

Mr. Cottrell presented the committee a summary of the Western Governor's Association Mine Waste Task Force's comments on the EPA proposed "Strawman" regulations on mining waste. It was mentioned that there were early attempts to regulate mine waste similar to chemical wastes, and things just didn't fit. Mine wastes were different than chemical wastes in that they were low toxicity, high volume wastes. The Strawman Rules were proposed by EPA and industry was invited to participate in their development. The Mine Waste Task Force was formed to address these regulations. The Task Force urged State oversight of the program rather than on a federal level.

Mr. Cottrell mentioned that there was a possibility that the abandoned Juneau mine sites (A-J, Sheep Creek, Treadwell, Perseverance) would come under the Strawman regulations rather than the Superfund. He also mentioned that the Greens Creek Mine currently has 53 permits in order to operate.

Mr. McKrill asked what concerns there were about mining waste in Juneau. Mr. Cottrell stated the biggest problem would be the discharge from mine tailings into the acquifer. He also said that heavy metal migrations which could affect the food chain was a concern. Mr. Cottrell also stated that extensive monitoring is required for a modern mine to insure that there is no environmental impairment.

The committee discussed the transport and storage of cyanide used in gold mining. Mr. Cottrell said that Greens Creek gets 3,000 lb. containers of cyanide shipped to the mine and that the containers are shipped back for re-use. Greens Creek has expertise in handling spills of hazardous materials and is training a surface team to respond to spills.

The committee also discussed how hazardous materials were shipped into Juneau and concerns about contingency plans, security, transportation routes, storage, etc. Mr. Cottrell said that Greens Creek had 32 operating plans that addressed certain items, including how to handle cyanide.

The committee then discussed the various mine sites in Juneau. Steve Gilbertson outlined the work that the CBJ has done on Perseverance, Rock Dump, Sheep Creek and Treadwell in identifying the hazardous wastes risks. Chairman DiTraglia said that people have to be affected by the waste before a site can become a Superfund site.

Mr. Cottrell mentioned that elemental mercury can be picked up by ocean bottom feeders and then be converted to methel-mercury and end up in the food chain. He also said that any new mine in the Juneau area would most likely be operated in a preventative mode rather than a corrective mode.

The committee made three general recommendations to be considered when the final committee report is written:

1) The transport of hazardous materials for mining needs to be addressed.

2) Keep track of the Strawman regulations and see how they are developing.

3) The CBJ may want to adopt an ordinance which address the transportation of hazardous materials, routes, storage, etc.

Chairman DiTraglia was directed to ask the Assembly for an extension of time to complete the work of the committee. The committee decided to do a session to review the draft E.I.S. for the A-J mine and also add a session to look at the DEC Siting Report. It was thought that three additional sessions were needed to work on recommendations for the committee.

The meeting adjourned at 9:10 p.m.

MINUTES
AD HOC COMMITTEE ON HAZARDOUS MATERIALS AND
HAZARDOUS WASTES MANAGEMENT
Wednesday, August 23, 1989
Assembly Chambers - Municipal Building

Members Present: Dave DiTraglia; Mark Johnson; Jeff Mach; Jack Cottrell; Edward McKrill

Guest Speakers: Bob Valliant (Administrator, Bartlett Memorial Hospital); Bruce Hanlon (Plant Engineer, Bartlett Memorial Hospital); Dr. Paulson (Dentist/Oral Surgeon)

Staff Present: Cindy Johnson; Steve Gilbertson

Dave DiTraglia opened the meeting and requested members to review the minutes of the August 2, 1989 meeting. A few changes were made for clarification and the minutes were approved.

Edward McKrill introduced the guest speakers who had been invited to speak to the committee on the issue of medical waste disposal in Juneau.

Bob Valliant, Administrator at Bartlett Memorial Hospital (BMH) indicated that BMH generates approximately 500 pounds of medical waste per day. The hospital's medical wastes include sharps (needles, scalpels, etc.), blood contaminated wastes, tissues, and radioactive wastes. Although the hospital has been incinerating its wastes onsite, the hospital's incinerator is old and, more importantly, does not meet state or federal emission standards. The hospital board is now facing the decision whether to invest money in construction of a new incinerator or to accept a proposal in which Channel Sanitation would collect the wastes. Channel Sanitation had initially requested approximately a half million dollars per year to provide such a collection service, but has since lowered the annual fee to $91,000. It is thought that BMH could pay for the incinerator within three years.

The hospital board is considering installing a new incinerator that can handle all medical wastes in the community. It was noted that there may be some resistance to that proposal by Channel Sanitation due to the concern about government competing with the private sector.

Mr. Valliant pointed out the alternative to constructing a new incinerator at the hospital is to have the medical waste transported to a disposal site; the transportation of medical waste poses additional liability problems.

Questions were asked about the disposal of radioactive wastes. BMH degenerates its radioactive wastes to ten half lives then incinerates it.

Dr. Paulson explained that the medical waste problem surfaced as a result of incidents of needles washing onto beaches and from the AIDS scare. He stressed the importance of understanding the public perception problems.

Dr. Paulson indicated that the greater problem with medical waste comes from households, for example, from the disposal of needles by diabetics and drug users, rather than from doctors offices and hospitals, where disposal of medical waste is carefully controlled.

In Juneau, medical offices are holding medical wastes and are either paying Channel Sanitation for special pick up service ($25.00/bag) or taking the wastes to Channel Sanitation for a confidential burn ($25.00/burn). A confidential burn is one in which the doctors or dentists are the only ones to handle the wastes; no Channel Sanitation employee handles the wastes. Dr. McKrill added that he currently saves his waste needles and other sharps in a gallon jug. Once it is full (in about 6 months) it is taken to Channel Sanitation for a confidential burn. The dentists work together to collect their waste sharps for a confidential burn.

Dr. Paulson indicated that the hospital is best suited and trained to handle the disposal of medical waste. He recommended that doctors and dentists have the option of taking their medical wastes to the hospital for incineration or using Channel Sanitation's collection service.

Dr. McKrill recommended that the medical wastes of the entire community be handled in a medical waste incinerator at the hospital. Such a proposal should not be viewed as government competing with the private sector because medical waste is not a major part of the solid waste flow. Dr. McKrill also suggested that pharmacists encourage diabetics to store their waste needles and turn them into their doctors for proper disposal.

Chairman Di Traglia pointed out that Exxon has three medical waste incinerators being used for the oil clean up which may not be needed after September. BMH may wish to investigate the possibility of acquiring one of the incinerators. Chairman DiTraglia also pointed out that medical waste is considered a special solid waste problem rather than a hazardous waste problem.

BMH needs to know whether it will be serving as a community or regional medical waste disposal center before it can determine the size and cost of a new incinerator. If a new incinerator were installed, BMH would burn all its wastes.

A question was raised about how medical wastes in outlying communities are currently handled. Some of the clinics bring their waste needles to BMH for incineration.

Ash from the BMH incinerator is taken to Channel Sanitation and reburned in the Channel Sanitation incinerator. Needles are half burned after BMH incineration.

BMH sends expired drugs back to the manufacturers.

Mr. Johnson asked how BMH deals with decontamination emergencies. BMH has an active hazardous materials training program; in addition to providing annual training for its staff, BMH also provides training for each new hazardous material introduced on the market and for each new employee. Mr. Cottrell stated that he works with the hospital to keep it abreast of hazardous materials being used at the Greens Creek mine.

Chairman DiTraglia closed the meeting with the observation that incineration is probably the only way to address the disposal of medical wastes in a manner that adequately deals with the public perception of the problem.

The meeting adjourned at 9:00 p.m.

MINUTES
AD HOC COMMITTEE ON HAZARDOUS MATERIALS AND
HAZARDOUS WASTE MANAGEMENT
Wednesday, September 6, 1989
Conference Room - Juneau Public Library

Members Present: Jeff Mach; Mark Johnson; Edward McKrill; Jack Cottrell

Members Absent: Dave DiTraglia

Staff Present: Cindy Johnson

Guest Speakers: Jack Sharp, Alaska Department of Military and Veteran Affairs, Division of Emergency Services; Ronald J. Morris, U.S. Coast Guard; Cecil D. McNutt, U.S. Coast Guard

The committee reviewed and approved the minutes of the August 23, 1989 meeting. Mark Johnson introduced the guest speakers from the U.S. Coast Guard who were invited to address the committee on issues pertaining to the marine shipment of hazardous materials into and hazardous wastes out of Juneau. Mr. Johnson also introduced Jack Sharp from the Department of Military and Veteran Affairs, Division of Emergency Services who had been invited to discuss and demonstrate the Computer-Aided Management of Emergency Operations (CAMEO) software.

Ronald Morris stated the Coast Guard is not involved in RCRA or SARA Title III enforcement but is willing to provide assistance to Juneau in addressing concerns related to the transportation of hazardous materials and wastes. The Coast Guard has separation and fire protection requirements for vessels transporting hazardous materials.

Cecil McNutt, who works in the Coast Guard's operation office, explained there are three types of marine transportation into Juneau: containerized barges (with containers going straight to the stores); tanker barges (Delta Western and Union Oil); and the MV Otter which brings explosives into North Douglas. When the MV Otter arrives at North Douglas contractors drive up, load up and leave. A permit is required to bring explosives into Juneau. The Coast Guard monitors all shipments of explosives into Juneau. Mr. McNutt was asked if there have been violations. He indicated most problems are with the paperwork.

According to Mr. McNutt, typical barge cargo includes paint, cars, flammable liquids, etc. Most items coming into Juneau are used here. There are approximately 300 shipments of hazardous materials into Juneau annually. Almost all barges coming into Juneau contain some hazardous materials.

Jack Cottrell indicated that approximately 100,000 pounds of explosives are stored at Greens Creek as part of the mine operation. Mr. Cottrell stated that all of Greens Creek's supplies arrive at the AML dock where they are off loaded, stored in the upper yard for up to 48 hours and then loaded onto the Greens Creek barge and sent over to the mine.

Mr. McNutt said hazardous waste shipments leaving Juneau are limited to the annual hazardous waste clean up efforts sponsored jointly by DEC and CBJ and a couple of shipments by AEL&P which usually contain PCB's and contaminated waste oil.

Mr. McNutt was asked by the committee to identify concerns he feels the committee should address. In response to that question he suggested the committee look into the following three issues:

1. Storage of hazardous materials at upland facilities and potential for incompatibles to be stored too close to each other.

2. Oil waste is not being shipped out. Where is it going?

3. Lack of a hazardous materials emergency response team. The Coast Guard has only a D level response capability in the event of a disaster. The nearest strike team is in San Francisco.

Mr. McNutt also expressed concern about vehicles carrying flammables along the Juneau road system.

Mr. Sharp explained his role in the Division of Emergency Services is to help local communities in preparing to react and recover from major disasters, including hazardous materials spills. From Mr. Sharp's perspective, a hazardous materials response team would be difficult to maintain in Alaska because of the need for constant training. It was his opinion a strike team option would work best here. Mr. Sharp stressed the need for a disaster plan. Juneau needs to figure out what sort of major disasters might occur in Juneau, how great a threat each type of disaster represents, and how many people might be impacted. Additionally, he noted that it is critical to evaluate the location of key services, such as the hospital, in relation to where a potential disaster might occur.

Mr. Sharp made the following additional recommendations to the committee:

1. Juneau needs to establish a place for people to go in the event of an evacuation.

2. After an evacuation it is important to get the community's reaction (conduct a public hearing, etc.) to make sure people understand the need for the evacuation.

3. Obtain the necessary tools for adequate emergency response planning. Mr. Sharp highly recommended the CAMEO software.

Due to the lack of time, Mr. Sharp was unable to demonstrate the CAMEO software and was invited to return and demonstrate the CAMEO at one of the committee's upcoming meetings.

MINUTES
AD HOC HAZARDOUS MATERIALS AND HAZARDOUS WASTE COMMITTEE
Tuesday, October 3, 1989 - 7:00 p.m.
Conference Room - Juneau Downtown Library

Members Present: Jack Cottrell, Dave DiTraglia, Mark Johnson, Edward McKrill, Jeff Mach

Staff Present: Steve Gilbertson, Lands and Resources

Guests Present: Larry Fanning, CBJ District Fire Chief, and Linda Van Houten, Department of Environmental Conservation

Ms. Van Houten started the meeting with a discussion of SARA Title III and the role of the State Emergency Response Commission and the Local Emergency Planning Committee (LEPC). Ms. Van Houten told about the status of LEPC's around the state and the fact that only the Fairbanks, Kodiak Island and Kenai Boroughs have formed LEPC's.

Ms. Van Houten explained that Alaska Statute 26.23 requires communities to have a disaster plan. It was mentioned that EPA and FEMA are the Federal agencies overseeing the SARA Title III program, and that DEC and Military and Veterans Affairs (Division of Emergency Services) oversee the SARA Title III program for the state. Ms. Van Houten talked about the goals of the SEPC Work Plan.

Larry Fanning outlined the four elements of the Juneau Disaster Plan: (1) Natural Disaster; (2) Technological Disasters; (3) National Defense; (4) Salmon Creek Dam. Mr. Fanning talked about how the emergency response plan could be integrated into the disaster plan already being undertaken by the CBJ. He also mentioned that based on MSDS sheets, Juneau either doesn't have much of a problem with chemicals or everything isn't being reported. Mr. Fanning talked about how the disaster plan works and the various responsibilities of the agencies (Incident Command Model).

The transportation of chemicals within Juneau is regulated by DOT/PF regulations rather than SARA Title III regulations which address storage and use of chemicals. Mark Johnson showed slides of emergency response situations in Louisville, Kentucky.

Steve Gilbertson told the committee that the Assembly has budgeted $10,000 for Hazardous Waste Planning. Jeff Mach suggested we might consider hiring someone to do an inventory of hazardous waste in Juneau.

The committee made the following recommendations:

1. Need to have information sharing between agencies such as CBJ, DEC, and Coast Guard with regard to MSDS sheets.

2. The CBJ needs to establish a LEPC to address local issues.

3. Larry Fanning recommended that the CBJ have a position to help out with hazardous materials and waste planning.

The meeting adjourned at 9:00 p.m.

MINUTES
AD HOC COMMITTEE ON HAZARDOUS MATERIALS AND
HAZARDOUS WASTE MANAGEMENT
Wednesday, October 18, 1989
Assembly Chambers - Municipal Building

Members Present:
Dave DiTraglia; Mark Johnson; Edward McKrill; Jack Cottrell

Members Absent: Jeff Mach

Staff Present: Cindy Johnson

Guest Speakers: Jack Sharp, Alaska Department of Military and Veteran Affairs, Division of Emergency Services; Larry Fanning, CBJ Fire Department; Dave Goade, CBJ Community Development Department

Guests Present: Ron Hansen

The minutes of the October 3 meeting were reviewed and approved after a few changes were made for clarification. Jack Sharp, who had previously spoken at the committee's September 6 meeting was reintroduced to the committee and welcomed back. Due to the time constraints at the September 6 meeting, Mr. Sharp had not had an opportunity to discuss and demonstrate the Computer-Aided Management of Emergency Operations (CAMEO) software.

Mr. Sharp explained that CAMEO was developed by the National Oceanic and Atmospheric Administration (NOAA) to provide scientific assistance to the Coast Guard in handling its emergency operations. The program assists emergency personnel in two key ways. One part of CAMEO addresses code breaking. Since chemicals often have synonyms, critical time may be saved during an emergency by using the CAMEO code breaking system which cross references chemicals with their synonyms, providing rapid identification. The code breaker also provides information on the properties of each chemical as well as describes health hazards, first aid, fire hazards, fire fighting techniques, and necessary protective clothing.

Another important feature of CAMEO is its air modeling capability. Air models pictorially depict how a chemical release will impact an area given certain atmospheric conditions, specifically: temperature; wind speed; and wind direction. This information can be used to help determine whether an evacuation is needed and the extent of the area that should be evacuated. Mr. Sharp stressed that CAMEO is intended to be one tool used to assist emergency personnel and is not capable of providing a complete solution to an emergency.

Despite some limitations to CAMEO, Mr. Sharp expressed enthusiasm for its many positive aspects; overall, he highly recommended it. He described some of CAMEO's limitations CAMEO does not work well with heavy gases or mixtures of chemicals nor does it work for petroleum products or explosives. On the otherhand, there are many beneficial aspects. CAMEO's code breaking

and air modeling features can assist personnel during an emergency or even more commonly, assist as a training tool. By creating "what if" scenarios with the CAMEO system, staff can become better prepared to handle a chemical spill. Another advantage of CAMEO is the strong support system offered. The Coast Guard, NOAA, the Alaska Department of Environmental Conservation (ADEC), the Alaska Department of Military and Veterans Affairs/Division of Emergency Services, as well as several other Alaskan communities are now using CAMEO. CAMEO would also be a convenient method for storing MSDS information. Although the data from the MSDS sheets would have to be entered into the computer, which would be a time consuming effort for staff, it is possible that new optical readers coming into the market will make data entry more efficient.

Larry Fanning indicated the Fire Department hopes to purchase CAMEO in the near future. The CAMEO software and manual are available from NOAA for only $115. Registration with NOAA ensures the software owner will receive updates as they become available. Since a MacIntosh computer is required to run the CAMEO software, the Fire Department has requested the MIS Committee approve the purchase of a MacIntosh. It was suggested that the hazardous materials and hazardous waste committee members could support the Fire Departments request by recommending the CAMEO and MacIntosh be purchased.

Mr. Fanning estimated that 60% of the incidents to which the Fire Department responds involve hazardous materials, including automobile accidents with resulting gasoline leaks. He went on to say that the Fire Department tries to work with local businesses in developing pre fire plans to identify what materials are being stored where; this information could also be stored in CAMEO and would enhance the Fire Department's emergency response efforts.

Dave Goade, a planner in the Community Development Department, was introduced to the committee. Mr. Goade stated that current zoning regulations do not specifically address the storage of hazardous materials. A proposed industrial activity is simply required to be located on land zoned for industrial use. The committee members recognized that it is beyond the scope of the ad hoc committee to examine the options for regulating the storage of hazardous materials through zoning. It was suggested that if a permanent committee on hazardous materials and hazardous waste is formed that it be asked to further examine the zoning issue.

The committee decided to use the November 1 meeting to discuss the oral report that will be given to the Assembly on November 20. It was also decided to reschedule the meeting with Channel Sanitation to November 15.

The meeting adjourned at 9:12 p.m.

MINUTES
AD HOC COMMITTEE ON HAZARDOUS MATERIALS AND
HAZARDOUS WASTE MANAGEMENT
Monday, November 13, 1989
Conference Room - Juneau Public Library

Members Present: Dave DiTraglia; Jeff Mach; Edward McKrill; Jack Cottrell

Members Absent: Mark Johnson

Staff Present: Cindy Johnson

Dave DiTraglia called the meeting to order at 7:10 p.m. The purpose of the meeting was to identify what, if any, additional topics the committee should address and to set the committee's course for future meetings.

Additional topics suggested for review included the following:

1. Channel Sanitation report
2. DEC Siting Study - executive summary
3. OSHA/NIOSH
4. DEC Capacity Assurance Plan
5. Education

Committee members examined resolution 1350 and determined that most of the topics which the Assembly had requested the committee to review have been adequately addressed by the committee. However, the topic of "education" needed further review. The committee then discussed ideas on how to educate the public about preventing and reducing hazardous waste generation. The following ideas were suggested:

1. Conduct waste minimization workshops
2. Media blitz
3. Advertise on buses
4. Include information in utility bills
5. Start Natural Resources Month in local schools (similar to Fairbanks program)
6. Develop curriculum kit for schools

The meeting adjourned at 8:50 p.m.

MINUTES

AD HOC COMMITTEE ON HAZARDOUS MATERIALS AND
HAZARDOUS WASTE MANAGEMENT
Wednesday, November 29, 1989
Conference Room - Juneau Public Library

Members Present: Dave DiTraglia; Jeff Mach; Edward McKrill; Jack Cottrell

Members Absent: Mark Johnson

Staff Present: Cindy Johnson; Steve Gilbertson

Guest Speaker: Gerry Wilson, Channel Sanitation

Guests: Ernie Polley; Ron Hansen

Dave DiTraglia opened the meeting and asked committee members to review the minutes of the November 13, 1989 meeting. The minutes were approved. Chairman DiTraglia then introduced the guest speaker, Gerry Wilson, of Channel Sanitation.

Mr. Wilson described some of Channel Sanitation's concerns regarding the handling of infectious wastes. According to Mr. Wilson, the regulations that address infectious wastes are too broad for proper enforcement. Specifically, the DEC and Alaska Department of Labor regulations do not adequately define what is infectious waste. Mr. Wilson explained that local doctors consider red bag waste to be limited to sharps. State regulations however include blood waste as red bag waste. Mr. Wilson suggested that the state regulations should be revised to provide a clear definition of what constitutes infectious waste.

Mr. Wilson was asked what sorts of hazardous wastes are coming into the Channel Sanitation facility. He responded that most of what he has seen coming into the facility are household hazardous wastes and paints from contractors.

Mr. Wilson also provided information about the general waste stream in Juneau. Unlike other areas of the country, yard wastes constitute a very small part of the Juneau waste stream. According to Mr. Wilson, Juneau residents generate about 5 pounds of garbage per day, or about 30% more garbage than the national average.

In January, Channel Sanitation will start a program to separate household batteries from the general garbage. Batteries cause air quality problems when incinerated.

The committee next discussed the future of solid waste management in Juneau. Mr. Wilson indicated that it will be extremely difficult for a private company to keep up with the pace and costs of the ever-increasing, ever-changing regulations. Channel Sanitation cannot force people to subscribe to the pick up service. Additional subscribers would allow increased operating costs to be spread among more people. Channel Sanitation currently has 5,000 accounts (including businesses) for pick up service. Steve Gilbertson estimated that there are 10,500 households in Juneau. Ernie Polley stressed the need to educate the Assembly so that it understands the solid waste managements issues and problems.

Committee members agreed to next meet on Wednesday, December 13, in the small conference room of the Juneau Public Library, at 7:00 p.m. DEC's Siting Study and Capacity Assurance Plan will be discussed. In addition, writing assignments will be divided among committee members.

The meeting adjourned at 8:45 p.m.

MINUTES
AD HOC COMMITTEE ON HAZARDOUS MATERIALS AND
HAZARDOUS WASTE MANAGEMENT
Wednesday, December 13, 1989
Conference Room - Juneau Public Library

Members Present: Dave DiTraglia; Jeff Mach; Edward McKrill; Jack Cottrell; Mark Johnson

Staff Present: Cindy Johnson

Dave DiTraglia opened the meeting and asked committee members to review the minutes of the November 29, 1989 meeting. The minutes were approved.

The committee identified the following additional matters it would like to discuss or accomplish prior to submitting its report to the Assembly:

1. Review the hazardous substances plan which is being drafted by Echo Bay as part of its proposal to reopen the AJ Mine. It was noted that the plan may not be available prior to the committee finishing its report to the Assembly in mid-February.

2. Address the issue of whether or not the CBJ should conduct an inventory of hazardous wastes in Juneau.

3. Meet with the recycling committee.

Chairman DiTraglia briefly commented on the results of DEC's preliminary siting report. The findings of the report revealed that Alaska does not have a large enough volume of hazardous waste to support a waste treatment facility. Instead, the report recommends that Alaska focus on developing regional storage and transfer facilities. The consolidation of the waste at a regional facility would make shipment to disposal facilities more economical.

Jeff Mach described DEC's Capacity Assurance Plan (CAP). The CAP was written in response to a federal requirement that each state assure the federal government that it has the capability of managing the hazardous waste treatment facilities but is working with other Northwest states in developing agreements for disposing of hazardous wastes. Alaska will also focus on waste reduction.

The committee members agreed to start writing the report to the Assembly by dividing the report into sections. Each member agreed to take one or more sections of the report and write a draft to be reviewed by the whole committee. The writing assignments were as follows:

Jack Cottrell	* Mining
Mark Johnson	* Emergency Response Planning * SARA III
Edward McKrill	* Medical Waste * Education
Jeff Mach and Dave DiTraglia	* Superfund * Hazardous Waste Management

The next meeting will be January 3, 1990.

The meeting adjourned at 9:00 p.m.

MINUTES
AD HOC COMMITTEE ON HAZARDOUS MATERIALS AND
HAZARDOUS WASTE MANAGEMENT
Wednesday, January 3, 1990
Conference Room - Juneau Public Library

Members Present: Dave DiTreglia; Jeff Mach; Edward McKrill; Jack Cottrell

Members Absent: Mark Johnson

Staff Present: Cindy Johnson

Guest Present: Elva Bontrager

Dave Ditraglia opened the meeting and asked committee members to review the minutes of the December 13, 1989 meeting. The minutes were approved.

The committee requested staff to invite Peter Freer, chairman of the Mayor's Committee on Recycling, to the next meeting of the Hazardous Materials and Hazardous Waste Committee in order to discuss the formation of a permanent committee. At this point both committees are planning to recommend the assembly form a permanent committee to address ongoing concerns in the areas of recycling and hazardous materials and hazardous waste management. The meeting with Peter Freer will provide the committee an opportunity to develop a recommendation that is consistent in intent and language with the recommendation proposed by the recycling committee.

The committee spent most of the meeting discussing the scope and format of its report to the assembly. In addition to the topics noted in the minutes of the December 13th meeting, the committee agreed the report should include sections on the following subjects: siting; transportation; and solid waste. It was decided Mark Johnson should be asked to write the section on transportation. Jeff Mach will write the section on solid waste. The committee also reminded staff that it would like to review the hazardous substances report being prepared as part of the proposal to reopen the AJ mine, if that report becomes available prior to the disbanding of this ad hoc committee.

The committee next discussed the question of whether an inventory of hazardous materials and hazardous wastes within the community should be conducted. It was pointed out that a mechanism to conduct an inventory already exists under SARA Title III. Furthermore, emergency response personnel would be the people most likely to benefit from information derived from an inventory. Therefore, it was suggested that any additional inventory mesh with work already being done as part of SARA Title III.

The meeting concluded with a brief discussion about the format of the report.

The next meeting of the committee will be January 10, 1990.

The meeting adjourned at 8:50 p.m.

MINUTES
AD HOC COMMITTEE ON HAZARDOUS MATERIALS AND
HAZARDOUS WASTE MANAGEMENT
Wednesday, January 10, 1990
Conference Room - Juneau Public Library

Members Present: Dave DiTraglia; Jeff Mach; Edward McKrill; Jack Cottrell; Mark Johnson

Staff Present: Cindy Johnson; Steve Gilbertson; Larry Fanning

Guests Speaker: Peter Freer, Chairman of Mayor's Committee on Recycling

Dave DiTraglia opened the meeting and asked committee members to review the minutes of the January 3, 1990 meeting. It was noted that the minutes should be changed to reflect that Jeff Mach was writing the solid waste section of the committee's report. With that change made, the committee approved the minutes.

Chairman DiTraglia introduced Peter Freer, chairman of the Mayor's Committee on Recycling. Chairman Freer distributed copies of his committee's draft recommendations. He identified two key areas in which his committee's recommendations overlap with the hazardous materials and waste committee's recommendations. First, both committees recognize the need for a permanent committee to be established in order to address ongoing waste management concerns. Second, both committees intend to recommend to the assembly that the city and borough develop a public education program to enhance public awareness of the problems and solutions related to waste.

The Committee next discussed its recommendation that a Local Emergency Planning Committee (LEPC) be also created to handle issues pertaining to hazardous materials in the community. Larry Fanning expressed support for the concept. It was pointed out that an LEPC could also address other emergency planning needs such as problems arising from earthquakes and avalanches.

Mr. Fanning indicated that he recently received a letter from DEC in which DEC asked what resources the city and borough would need to establish an LEPC. He is drafting a response stating that the city and borough will need funding for a Planner I position in addition to funding for training and supplies; the total funds needed are approximately $50,000 to $55,000. The committee requested Mr. Fanning submit his letter of response to the committee so that it might be included in the committee's report.

Mr. Mach stated that he had reviewed the minutes of previous meetings and found four issues and tasks that were briefly discussed by the committee and then left in limbo. He asked the committee to review those four issues and tasks and determine if any further action should be taken on them.

1. Should the committee compile a list of pertinent regulations, agencies charged with implementing those regulations, as well as a vocabulary list for inclusion in the committee's report to the assembly?

   Committee's decision: Yes.

2. Should the committee describe the ideal emergency response system and then describe a practical system?

   Committee's decision: No. It was decided that a better approach would be to define what is an emergency response system, then describe a system that will work well in Juneau.

3. Should the committee research incinerator ash characteristics at the landfill?

   Committee's decision: Yes.

4. Should the committee make a recommendation in response to the James Hall memorandum which recommends changing the city and borough's procurement code to eliminate the procurement of hazardous materials?

   Committee's decision: Refer this item to the Mayor's Committee on Recycling.

The next meeting of the committee will be Wednesday, January 17, 1990.

The meeting adjourned at 9:00 p.m.

MINUTES
AD HOC COMMITTEE ON HAZARDOUS MATERIALS AND
HAZARDOUS WASTE MANAGEMENT
Wednesday, January 17, 1990
Conference Room - Juneau Public Library

Members Present: Dave DiTraglia; Jeff Mach; Edward McKrill; Jack Cottrell

Members Absent: Mark Johnson

Staff Present: Cindy Johnson

Guests Present: Corey McKrill

Dave DiTraglia opened the meeting and asked committee members to review the minutes of the January 10 1990 meeting. The minutes were approved.

The committee discussed the format of the report it is preparing for the Assembly. It was suggested that the executive summary contain a paragraph on each subject matter discussed in the report.

The remaining portion of the meeting was spent reviewing the mining section of the report. Two additional recommendations which pertain to the possible reopening of the A-J Mine, were suggested for inclusion in the mining section of the report:

1. Require closure bonds for mining operations.

2. Encourage large mine operators to participate in SARA Title III.

The committee decided that more time was needed for preparation of the report and agreed to meet Friday, January 19, 1990 at the Alaska Department of Environmental Conservation office located in suite 115 in the Jordan Creek Mall. The meeting will begin at noon.

The meeting adjourned at 9:00 p.m.

MINUTES
AD HOC COMMITTEE ON HAZARDOUS MATERIALS AND
HAZARDOUS WASTE MANAGEMENT
Friday, January 19, 1990
Suite 115 - Jordan Creek Mall

Members Present: Dave DiTraglia; Mark Johnson; Edward McKrill

Members Absent: Jeff Mach; Jack Cottrell

Staff Present: Cindy Johnson

The committee agreed to use a consistent format within each section of the report---background or explanatory remarks would be placed first, followed by recommendations.

The committee reviewed the "Medical Waste" and "Superfund/CERCLA" sections of the report. Several changes were suggested:

Medical Waste

1. Specify which agency was responsible for closing the hospital incinerator.

2. Explain why a new hospital incinerator should be made available to the entire local medical community (Recommendation 1).

3. Insert figures to demonstrate comparative costs for buying new hospital incinerator versus using the local garbage collection service (Recommendation 1).

Superfund/CERCLA

1. Include a status report on the Superfund investigations within the city and borough.

2. Identify agencies conducting Superfund investigations within the city and borough (Recommendation 2).

3. Add a recommendation that the city and borough work closely with DEC to determine the severity of hazards at those sites that don't make the Superfund list to determine what, if any, remedial action should be pursued by the state or the city and borough.

The committee will meet Wednesday, January 24 at 7:00 p.m. in the downtown library conference room and again on January 26, at noon, in the valley library.

MINUTES
AD HOC COMMITTEE ON HAZARDOUS MATERIALS AND
HAZARDOUS WASTE MANAGEMENT
Wednesday, January 24, 1990
Conference Room - Juneau Public Library

Members Present: Dave DiTraglia; Mark Johnson; Edward McKrill; Jeff Mach; Jack Cottrell

Staff Present: Cindy Johnson

Edward McKrill passed out his revised version of the "Medical Waste" section of the report and discussed the changes he had made since the last meeting. Mr. McKrill noted that the committee had requested he insert figures to demonstrate comparative costs for buying a new hospital incinerator versus using the local garbage collection service; the hospital administrator is out of town at this time so the information will not be available until he returns next week.

Discussion next turned to the introduction of the report. It was suggested that the opening remarks include the names of the members of the committee and a summary of the charge of the committee. Staff was asked to provide a complete set of meeting minutes for inclusion in the appendix.

During the remainder of the meeting the committee reviewed the "Emergency Response/Community Right to Know," and "Transportation," sections and the revised "Hazardous Waste" section of the report. Several suggestions were made to move items from one section of the report to another, to insert additional information or to clarify certain points.

The committee will continue to work on its report at its next meeting Friday, January 26, 1990. The meeting will begin at noon in the Mendenhall Library conference room.

The meeting adjourned at 9:00 p.m.

MINUTES
AD HOC COMMITTEE ON HAZARDOUS MATERIALS AND
HAZARDOUS WASTE MANAGEMENT
Friday, January 26, 1990
Conference Room - Mendenhall Public Library

Members Present: Dave DiTraglia; Edward McKrill

Members Absent: Mark Johnson;Jeff Mach; Jack Cottrell

Staff Present: Cindy Johnson; Steve Gilbertson

In this work session, the committee continued its review of various sections of its report to the assembly. Cindy Johnson discussed the opening paragraphs of the "Siting" section and outlined the recommendations to be placed under that section. Committee members decided to insert additional recommendations stating that the downtown tank farm and Petrolane should be moved away from population centers.

The members discussed the "Superfund/CERCLA" section and asked Steve Gilbertson insert a few comments on the hazardous waste investigation the city and borough conducted on city and borough-owned properties.

The members also reviewed the "Education" section and agreed to several changes to consolidate the recommendations.

Ms. Johnson will begin editing the report this weekend and will draft the summary of recommendations.

Chairman DiTraglia said he will be out of town next week and will miss the Wednesday night meeting.

The next meeting of the committee will be Wednesday, January 31, at 7:00 p.m. in the conference room of the downtown library.

The meeting adjourned at 1:20 p.m.

MINUTES
AD HOC COMMITTEE ON HAZARDOUS MATERIALS AND
HAZARDOUS WASTE MANAGEMENT
Wednesday, January 31, 1990
Conference Room - Juneau Public Library

Members Present: Dave DiTraglia; Edward McKrill; Jeff Mach; Jack Cottrell

Members Absent: Mark Johnson

Staff Present: Cindy Johnson

The committee continued its review of various sections of its report to the assembly. Cindy Johnson discussed the format of the report and suggested that the lengthy, technical background information be broken up by questions. Each paragraph or new idea would begin with a question; the narrative following the question would then respond to the question. The committee agreed to use this format for its report.

Jack Cottrell reviewed changes to the mining section of the report. Ms. Johnson distributed copies of the city and borough mining ordinance for those who did not already have copies. The committee members felt their concerns about closure bonds is adequately addressed in the existing ordinance.

The meeting adjourned at 9:00 p.m.

MINUTES
AD HOC COMMITTEE ON HAZARDOUS MATERIALS AND
HAZARDOUS WASTE MANAGEMENT
Wednesday, February 7, 1990
Assemby Chambers - Municipal Building

Members Present: Dave DiTraglia; Edward McKrill; Jeff Mach; Jack Cottrell; Mark Johnson

Guests Present: Gretchen Fure

Staff Present: Cindy Johnson

The committee discussed the oral presentation it will make to the assembly on Monday, February 12. The oral report will highlight the seven areas in which the committee identified a need for city and borough leadership in hazardous materials and hazardous waste management:

household hazardous waste collection

siting of facilities that use or store hazardous materials

transportation of hazardous materials and wastes along the Juneau road system (an assessment of how well existing regulations are being enforced)

protection of city and borough from Superfund liability

installation of a new medical waste incinerator at the hospital

development of an emergency response plan

public education and information

The committee decided not to meet Wednesday, February 14. The next meeting will be Tuesday, February 20, 1990. The meeting will begin at 7:00 p.m. in the Juneau Public Library conference room.

The meeting adjourned at 8:50 p.m.

MINUTES
AD HOC COMMITTEE ON HAZARDOUS MATERIALS AND
HAZARDOUS WASTE MANAGEMENT
Tuesday, February 20, 1990
Conference Room - Juneau Public Library

Members Present: Jack Cottrell; Jeff Mach; Edward McKrill

Members Absent: Dave DiTraglia; Mark Johnson

Staff Present: Cindy Johnson

The committee began its review of the draft report to the Assembly. Several changes were suggested and typographical errors corrected. Committee members agreed to release the draft recommendations to the Assembly Lands Committee, as requested by Rosie Peterson who chairs that committee. Ms. Peterson would like the Lands Committee to be able to review the hazardous materials and waste committee's draft recommendations at the same time it reviews the recommendations from the Mayor's Committee on Recycling. The Lands Committee is scheduled to examine these issues on Wednesday, February 28, 1990.

The committee discussed the ideas it would like included in the executive summary. Cindy Johnson will write a draft executive summary to be distributed to the committee at the end of the week. The committee will meet once more on Wednesday, February 28, 1990 to review the executive summary and make any last changes to the report. The meeting is scheduled to begin at 7:00 p.m. in the small conference room of the Juneau Public Library.

The meeting adjourned at 8:15 p.m.

APPENDIX D

CHANNEL CORPORATIONS' MEDICAL WASTE COLLECTION SERVICE

CHANNEL CORPORATIONS

CHANNEL SANITATION CORPORATION
CHANNEL EQUIPMENT RENTAL INCORPORATED
CHANNEL LANDFILL, INC.

May 3, 1989

Dear Medical Provider:

As you can see from the enclosed attachments, our firm has received an inspection by the Alaska Department of Labor on March 9th and 10th, 1989. This inspection was done at our suggestion to the Department of Environmental Conservation. On April 14, 1989 we responded to all hazard violations with the exception of hazard number five (5) on medical waste.

On April 20, 1989 we met with Dr. Kelly of the Department of Health and Social Services, a division of Public Health, Glenn Miller, Manager of the Department of Environmental Conservation Solid Waste Program, Ann Tipolady from Department of Environmental Conservation, Dr. Eric Paulsen, DDS, a representative of the medical community and Stan Godsoe from the Department of Labor. At this meeting separation and disposal of infectious waste was discussed at some length. The end result was a unanimous agreement that sharps should be placed in properly identified containers and disposed of separately from the normal refuse generated by medical providers. The container(s) should also be clearly marked showing the doctor's name and/or clinic or other facility.

A discussion ensued on what other items should be placed in red bag boxes and bags and disposed of as required for sharps. It was agreed that material showing evidence of blood and any material coming in contact with persons known to be infected with a dangerous communicable disease should also be treated in such a manner. Decisions as to this type of material for people not known to be infected would be left at the discretion of the individual medical provider until such time as the Environmental Protection Agency is able to provide a more definitive list of what items are considered infectious. There was additional discussion that residential refuse probably contained more infectious risk items than material we currently accept from the medical community.

P.O. Box 21267 JUNEAU, ALASKA 99802-1267 (907) 780-4288

Concerning the issue of residential infectious waste, it was decided that the only responsible course to follow would be to provide public education on the handling of this waste to protect the refuse haulers as well as to protect individual households members. The educational process could be enhanced by the medical community discussing with patients known to create this type of waste the proper method of disposal such as containerizing the material into coffee cans, thick plastic containers or the purchase of containers from doctors and/or pharmacists that may carry these items. We also suggest a handout leaflet that could be given to each patient known to have an infectious disease.

A general feeling of consensus was that third parties should not handle red bag waste. Specifically, this refers to janitorial services which unknowingly are bringing this waste to the landfill mixed in with other waste from other clients.

There are two methods of disposing of this waste. The first one is subscribing to our Medical Waste Pick Up Service. The other is to bring this waste to our incinerator plant under our Confidential Burn Service.

It is important each doctor or medical facility respond to us with a written proposal of what their individual plan of separation and disposal would be. You may wish to respond as a group but we do need to know who is represented. We need to work together on this problem and have a reliable plan in place to protect our workers, your employees as well as the general public. You may send your proposals to Channel Corporations' address at the bottom of this letter. We will call those who do not respond by the 15th of May.

Finally, we realize a great deal of discussion has taken place concerning our charges for disposing of these wastes through our newly instituted Medical Waste Service. Please be aware that our rates have been approved by the Alaska Public Utilities Commission on a refundable basis. We are required to report our receivables and expenses in the near future and then a decision will be made as to what our permanent rate for this service will be. Currently, we have two doctors signed up for this service. It is not hard to understand our expenses are far exceeding our revenues coming in from these two doctors. More support would have more likelihood of our rates being decreased.

We appreciate your anticipated cooperation in this matter and look forward to your replys.

Very truly,

Gerald A. Wilson
President

GAW/jak
cc: All Medical Providers
S. Godso, Dept. of Labor
G. Miller, DEC
D. Stokes
Dr. Kelly, Dept. of Health
file

APPENDIX E

LEPC IMPLEMENTATION COSTS

FIRE DEPARTMENT
CITY/BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY

820 Glacier Avenue, Juneau, Alaska 99801

January 8, 1990

Mr. Dennis D. Kelso
State Emergency Response Commission
P.O. Box O
Juneau, Alaska 99811-1800

Dear Mr. Kelso:

I am writing in response to your November 21, 1989 letter seeking advice on the amount of resources that Juneau's community will require to implement emergency planning and spill preparedness efforts. We request the following:

Staffing (Planner I)	$ 37,000
Computer/Equipment	6,000
Training	10,000
Miscellaneous	5,000
TOTAL	$ 58,000

As with any new project, we seem to be limited by our resources. In the case of emergency planning and spill preparedness; staffing, data collection and analysis, training, and funds for miscellaneous materials are our shortfalls.

Staffing:
Looking at the function of emergency preparedness for hazardous materials, the City and Borough of Juneau is short staffed. The Fire Department is trying to prepare and implement emergency planning, however, progress is all too slow, without mention of the lack of staff time for the management of records and for public education which are required under Title III. Because of this shortfall, we request $37,000 for a Planner I position.

Computer/Equipment:
The management of paperwork and the responsibility for disclosure of submissions involves handling, filing, and tracking reports, as well as preparing data for delivery to the public. In order to accomplish this, in addition to the staffing, a computer is required. The recommendation is the CAMEO Program, using the Macintosh. The estimated cost is $6,000 including a printer.

Training:
Training of the LEPC, as well as responders, must be addressed. Projected costs are $2,500 for LEPC training, and $7,500 to send 3 personnel to a Hazardous Material Response School.

Miscellaneous:
The cost for miscellaneous copying, subscriptions, and texts is estimated at $5,000. Additional assistance will be required after the data is in to more precisely determine the level of response required for our community.

As you are aware, complying with Title III is not a simple matter. The requirements are extensive--from the federal to the local level. With the assistance of a Planner, a computer to manage the paperwork flow, training of LEPC and personnel, and miscellaneous items as mentioned, Juneau would have the resources to plan and continue to implement emergency planning and spill preparedness efforts.

Respectfully,

CITY AND BOROUGH OF JUNEAU
FIRE DEPARTMENT

Larry B. Fanning
District Fire Chief

LBF:djh
c: Chief Judson
K. Ritchie, City Manager