Information Report on Management and Disposal of Household and Small Quantity Hazardous Wastes

To the Board of Governors,
City Club of Portland:

I. INTRODUCTION - THE PROBLEM

State and federal regulation of hazardous waste disposal is governed by the federal Resource Conservation and Recovery Act of 1976. Two types of waste, however, slip through the cracks of that regulatory scheme:

(1) household hazardous wastes, e.g., unused pesticides, paints, thinners, other solvents; and

(2) wastes from small businesses designated as "exempt small quantity generators," i.e., small businesses that generate less than 220 pounds of hazardous waste a month.

These hazardous wastes frequently find their way down the drain to the sewage plant or into a sanitary landfill, neither of which is designed to deal with hazardous wastes.

A. Toxic Chemicals in the Home

The Environmental Protection Agency (EPA) has determined that the average household contains between three and 10 gallons of materials that are hazardous to human health and the environment. Examples include pesticides, herbicides, solvents, fuels, lubricants, and paints. (For those interested, both the Metropolitan Service District (METRO) and the Oregon Department of Environmental Quality (DEQ) can provide specific information on what substances are hazardous.) Unfortunately, many homeowners dispose of hazardous substances by pouring them down the drain, putting them in the trash, or dumping them on the ground. Materials poured down the drain can corrode plumbing, throw back toxic fumes, and interfere with proper operation of the sewage plant that treats the wastewater. Materials dumped in the trash can explode, start fires, and release toxic fumes. Hazardous materials deposited in a landfill may leach into the soil and contaminate groundwater.

B. Toxic Chemicals Used by Exempt Small Quantity Generators

Businesses that generate less than 220 pounds of hazardous wastes per month are exempt from federal and state regulation. Yet, these exempt small quantity generators together produce a large volume of hazardous wastes. These unregulated businesses have little financial incentive to properly dispose of their wastes; disposal at approved hazardous waste landfills, (i.e., the Arlington facility in Oregon) is expensive. These small businesses often lack the technical

expertise to develop substitutes for the hazardous materials they use, to find ways to recycle the hazardous materials they must use, and to ensure proper disposal of the leftover wastes.

C. Problems Caused by Improper Disposal

Sanitary sewage treatment systems are not capable of handling the majority of hazardous materials that find their way to the sewage treatment plants. In the worst case, hazardous materials can interfere with the plant's treatment of domestic sewage. Otherwise, the hazardous materials simply pass through the plant, untreated, into whatever water body receives the plant's effluent.

Land disposal leads to similar problems. Unlike a licensed hazardous waste landfill, sanitary landfills for municipal solid waste are not designed to prevent the leaching of hazardous materials into the soil and groundwater. Landfill operators have little means of policing the loads coming in to make sure hazardous wastes are not being dumped.

II. STATE AND LOCAL ACTION

A majority of states, including Oregon, have taken some steps toward solving the problems caused by the hazardous wastes generated by households and exempt small businesses. By 1987, 29 states had conducted some type of household hazardous waste collection program. Two leading examples of local and state government actions are programs implemented by the City of Anchorage, Alaska and by the State of Minnesota.

A. Anchorage, Alaska

In 1984, the City of Anchorage began a two year study to develop a hazardous waste management plan. A Hazardous Waste Task Force completed an inventory of wastes from household and small quantity generators within the city, hired a consultant to develop alternatives for management of these wastes, and involved citizens and businesses in reviewing those alternatives.

In late 1986, Anchorage adopted a plan for the collection of household and small business hazardous wastes. In February 1989, the city opened a hazardous waste collection and storage facility, constructed adjacent to its landfill. Both citizens and small businesses, for a fee, can drop off hazardous waste at the collection center. The city also opened a hazardous waste drop-off station in mid-town Anchorage for wastes from households. Finally, the city initiated a hazardous waste pickup service for households and small businesses.

Anchorage voters approved a $700,000 bond obligation for construction of the facilities. Anchorage obtained

another $700,000 for construction and design through state grants. Annual operating costs for 1989 are budgeted at approximately $1.25 million. Anchorage's Department of Solid Waste Services will contribute $400,000 through a $2 per ton surcharge on solid waste dumping fees. The Anchorage Water and Waste Department will contribute $300,000. Anchorage expects to generate the remaining $500,000 through user fees ($5 for household disposal, $385/drum for small businesses, and $10-25 pick-up fees).

B. State of Minnesota

In 1987, Minnesota passed legislation giving the Minnesota Pollution Control Agency (MPCA) authority (and $616,000 in appropriations) to establish a permanent household hazardous waste collection program. The program has two components: (1) telephone advice and education and (2) collection.

MPCA developed a Household Hazardous Waste Telephone Advice Guidance Manual that provides extensive information on the hazards and proper use and disposal of numerous household chemicals. MPCA also prepared fact sheets to provide to callers on the proper disposal of common substances as well as suggested alternatives to the hazardous products. MPCA trained 50 individuals throughout the state to answer inquiries from the public regarding the use and disposal of hazardous substances. After the telephone service was publicized, MCPA's St. Paul office alone received more than 3000 telephone inquiries in 1988.

Minnesota is gradually implementing the collection component of its legislation. Between 1988 and 1989, MPCA will have opened four satellite offices in the state for the collection of hazardous wastes. These offices accept hazardous wastes on a periodic basis (e.g., every other Saturday in one satellite, five days a week in another) and provide advice and educational materials on the proper use and storage of hazardous materials. The state also provided matching funds for local governments and community groups that sponsor one-day collection programs. In the period 1988-89, 20 such collection events are planned.

III. STATUS OF HAZARDOUS WASTE DISPOSAL IN OREGON

A. Current Efforts

Communities and organizations within Oregon have taken some steps to deal with the problems created by the hazardous substances used by households and small businesses. Efforts have been made in education and collection.

1. Current Education Efforts

At least three organizations provide some educational guidance. Metro has operated a Recycling Hotline since

1981. When callers ask questions regarding disposal of hazardous wastes, they are advised to save their wastes for the next semi-annual hazardous waste collection event. METRO developed a brochure in 1988 outlining proper means of disposal for many household hazardous chemicals and a brochure outlining alternatives to some household hazardous chemicals.

DEQ's Hazardous and Solid Waste Division also provides advice and education services to individuals seeking information on the use and disposal of hazardous substances. In 1988, DEQ distributed through the Oregonian its "SACKS" catalog, which outlines alternatives to hazardous household products and gives guidelines for safe disposal. DEQ also provides phone advice when callers seek specific information on safe disposal of hazardous materials.

The Oregon State University Extension Service also provides some information to callers on the safe use and disposal of garden and agricultural products. In Multnomah County, the Extension Service relies heavily on volunteer Master Gardeners to answer calls from the public. The Master Gardeners' extensive training includes the safe use and disposal of pesticides and other garden chemicals.

2. Current Collection Efforts

Between 1981 and 1987, communities within Oregon held seven household hazardous waste collection events. The Gresham Fire Department sponsored four of them, beginning in 1982. In 1986, Portland METRO and the Gresham Hazard Materials Response Team (HAZMAT) jointly sponsored a two-day Household Hazardous Waste Collection program for the Portland Metro area. On two days in November 1986, 455 area participants brought in a total of 101 barrels of hazardous materials. The total cost of the collection event, including in-kind contributions, was $83,503. METRO repeated the program in May and October 1988, with approximately 1200 participants at each and at a cost of about $165,000 per event. The high cost of collection events is attributed primarily to the cost of disposal and the cost of performing chemical analyses which are required prior to disposal. Lane County has sponsored similar collection days once a year, from 1986 to 1988.

In 1987, the Oregon Legislature passed Senate Bill 622, which required the METRO to sponsor hazardous waste collection events two times a year once it begins sending waste to a regional disposal site (the Arlington site is considered a regional disposal site).

B. Proposals for the Future--1989 Legislative Proposals

In Oregon, no agency has overall responsibility for solving the problems caused by hazardous wastes from households and exempt small businesses. DEQ has no authority to

regulate businesses that generate less than 220 pounds of hazardous waste per month. In the Portland area, METRO has authority to control wastes deposited in the St. Johns landfill and has incentive to do so to minimize future contamination problems at that site. Neither agency, however, has overall responsibility. Further, neither agency feels it has sufficient funds to develop a permanent collection program or launch an extensive educational effort.

METRO and DEQ, as well as other concerned groups, are making plans to address the issue in 1989. Among those plans are the following:

1. METRO

METRO intends to continue its household waste collection events. It plans two in 1989. METRO is interested in a permanently located hazardous waste disposal facility, but it has no money budgeted now for such a facility.

2. DEQ

DEQ is seeking a legislative solution in the 1989 session. DEQ has proposed Senate Bill 424 which would fund, through a solid waste permit fee, two pilot projects to begin to address the problem of improper disposal of hazardous wastes. The permit fee would be paid by solid waste disposers throughout the state. The proposed permit fee is $2 per ton, which amounts to approximately 4¢ per garbage can.

The first pilot project would be a three-year program to work with local governments throughout the state to provide household hazardous waste collections. The second project would be a three-year pilot program within the Metropolitan Service District to collect wastes, for a fee, from small businesses. S.B. 424 would further require METRO to provide receiving stations by January 1, 1991 for the collection of household hazardous wastes. S.B. 424 would also require DEQ to implement a state-wide public education program aimed at providing information on disposal and recycling of household hazardous wastes and on alternatives to products that lead to the generation of hazardous wastes.

3. Oregon State Public Interest Research Group

The Oregon State Public Interest Research Group supports a Toxic Use Reduction bill, H.B. 2334. The bill has two components. First, it provides for technical assistance to industries that are seeking alternatives to the hazardous materials they now use or are seeking means to recycle those hazardous materials they must use. Second, it gives DEQ authority by 1993 to issue waste reduction performance standards for industry and to require compliance with those standards. The performance standards would apply only to industries generating more than 220 pounds of hazardous waste per

month, but the technical assistance would be available to all industries.

4. April 22 Collection Day

On Saturday, April 22, 1989, METRO is sponsoring a Household Hazardous Waste Collection Day. Household hazardous wastes will be accepted at four area collection sites from 9 a.m. to 4 p.m.:

Gresham
Gresham City Hall
1333 NW Eastman Parkway

Clackamas County
Clackamas Rural Fire Dist. 71
15990 SE 130th
(Off Highway 212/224)

Aloha
Tualatin Valley Fire and Rescue
3608 SW 209th
(SW 209th and Blanton)

Portland
City of Portland Wastewater Treatment Plant
5001 N. Columbia Blvd.

Any items with the words "flammable", "caustic", "corrosive", "danger", "warning", or "poison" appearing on the label will be accepted for disposal. For more information, call METRO at 224-5555.

Respectfully submitted,

James C. Brown
Alan Christensen
Regina Hauser
Sara Vickerman
Joan P. Snyder, chair
Subcommittee on Household Wastes,
Energy and Environment Standing Committee

The Committee expresses its gratitude to Robert Greening, former chair, and Robert Gay, current chair of the Energy and Environment Standing Committee, for their encouragement on this project.

Approved by the Research Board on April 5, 1989 for transmittal to the Board of Governors. Approved by the Board of Governors on April 10, 1989 for publication. NOTE: BECAUSE THIS REPORT CARRIES NO CONCLUSIONS OR RECOMMENDATIONS, NO OFFICIAL ACTION IS REQUIRED OF THE MEMBERSHIP.