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With Compliments

HAZARDOUS WASTE TASK FORCE MTG.
FRIDAY 31/7/92
11.00 a.m.

Dr J McCambridge
A/ASST DIRECTOR DEVELOPMENT
ASSESSMENT AND CONTROL

Department of **ENVIRONMENT
& PLANNING**

**TASMANIAN HAZARDOUS WASTE
STRATEGY** *Policy*

**Department of Environment and Planning
Division of Environmental Management**

July 1992

Summary of the Statewide Annual Volume of Industrial Wastes Generated in 1990

No.	Waste Category	Annual Volume, m ³ /year	Expected Trends (Next 5 Years)	% Disposal On/Off Site
1	Inorganic wastes	202715	Adequate Existing	4/91
2	Acids not neutralised	9324	Decline (30%)	95/4
3	Alkalis - not neutralised	7305	Decline (5%)	5/95
4	Reactive chemicals	0	Decline (10%)	0/100
5	Water paint, resin, dyes	749	Decline	0/100
6	Non chlorinated solvents	11	Decline	5/35
7	Chlorinated solvents	36	Decline	2/60
8	Purified animal wastes	21279	Decline	2/98
9	Purified veg. waste	88426	Decline	40/59
10	Other organic wastes	129072	Decline (20%)	42/58
11	Oily water, mixes, sludge	356	Decline (5%)	0/100
12	Waste oil	4198	Increase (5%)	0/100
13	Animal/veg. fat and oil	563	Increase (20%)	99/-
14	Persistent organic wastes	6073	Same	60/40
15	Non-persistent organics	0	Decline (10%)	97/3
16	Asbestos/fibres	33	Decline (20%)	17/60
17	Containers, drums, bags	6395	Decline (20%)	
18	Dust collector residue	37206	Decline (20%)	
Grand Total		726134 m ³ /yr		

Table 1.2

13	Animal fats and vegetable oils	Waste cooking oil Butter fat Tallow
14	Persistent, potentially toxic organic chemical wastes and pesticides	Materials contaminated with poly chlorinated biphenyls (PCBs) Materials contaminated with phenols, dioxins Persistent insecticides eg. DDT, dieldrin
15	Non-persistent, potentially toxic or odorous organic chemical wastes, insecticides and other pesticides	Non-persistent insecticides, herbicides, fungicides Pharmaceuticals Organic chemicals
16	Wastes containing asbestos or other mineral fibres (not including building or demolition wastes)	Asbestos insulating rope Asbestos friction lining wastes Rock wool, glass fibre
17	Containers, drums or bags used for potentially toxic materials	Used pesticide containers Used chemical bags
18	Dust collector residue	Baghouse dust Electrostatic precipitator dust

The study found that, in general, industry and the community have become more aware of environmental issues in recent times. The volume of industrial wastes generated in Tasmania in 1990 was estimated at 730,000 cubic metres (m³) and consequently the existing disposal arrangements were found to be inadequate. Over the next 5 years the statewide generation rate is estimated to decrease by about 11 per cent.

A summary of the statewide annual volume of industrial waste generated in 1990 and the expected trends over the next five years has been extracted from this survey and is presented in Table 1.2.

The report cites 16 specific recommendations detailed in Appendix III to this strategy. It is recognised that there is a need for at least one aqueous waste treatment and disposal facility in Tasmania for wastes such as inorganic wastes, acids and alkalis, paints, resins, solvents, oily water and sludges. In addition, at least one and preferably three secure landfill sites are required for hazardous wastes. These issues will be addressed in the progression of this strategy.

Other recommendations cited in the Industrial Waste Survey are already in progress:

These industries of course represent only a portion of the generation of hazardous wastes within the State. The general public, Government departments and a large number of small industries, which are not scheduled premises, scattered throughout the State may generate or store hazardous materials. This policy is not only intended to address the problems of manufacturing industries but also others such as the primary industry sector. The primary industry sector is responsible for the use and disposal of a wide range of pesticides all of which would be classified hazardous/intractable.

Information on all the generators of hazardous wastes will be needed in order to assess both the current and future quantities of materials that will need to be disposed of. This information is an essential prerequisite of the development of an appropriate waste management system for these materials and to plan for treatment facilities.

(c) To eliminate the disposal of hazardous liquid wastes to sanitary landfill within 5 years.

The disposal of liquid wastes to sanitary landfill increases the potential for the production of leachate which in turn may lead to surface and groundwater contamination. The elimination of the disposal of liquid wastes in this manner will be achieved by the development of appropriate aqueous waste treatment facilities. Councils must develop trade waste policies for disposal to sewer to ensure liquid wastes are controlled at source and to increase the potential for the wastes to be reused.

Alternatively, until an aqueous treatment facility is available it may be acceptable for these wastes to be disposed of at a secure landfill site.

(d) To establish secure landfill sites at strategic locations within the State within 5 years.

The State does not have any purpose built secure landfill sites for the acceptance of hazardous wastes. Such facilities are required to dispose of wastes generated from pollution incidents, existing wastes which are currently stored, those wastes for which no other treatment option is available and for the end products of other treatment facilities such as incinerator ash and treatment plant sludges.

Waste minimisation principles will reduce the quantity of industrial wastes requiring landfill. However, for some of the waste identified above purpose built landfill disposal sites will always be required.

The location and type of these facilities will be determined as a result of information gathered from the Industrial Waste Survey.

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(e) To establish appropriate waste storage and treatment facilities within 5 years.

In addition to secure landfill sites referred to above there is considered a need to establish other specific waste treatment facilities. These may include, aqueous waste treatment plants, recycling/refining plants and incineration plants (eg. waste to energy plants, medical waste incinerator).

There is also a requirement for the establishment of purpose built temporary storage facilities where waste materials can be stored prior to their ultimate treatment and/or disposal. Details are provided in the report of the Hazardous Substances Management Committee on a Facility for the Temporary Storage of Hazardous Substances.

(f) To implement education and training programs for the community in general and industrial waste operatives in particular.

It is essential that the community as a whole accept a greater responsibility for the management of hazardous wastes. This can be achieved by increasing the awareness of the community through specifically targeted education programs.

In addition, if the management of hazardous wastes is to continue to improve the personnel involved in the waste management field require access to the most up-to-date information. This may involve specific training programs, information bulletins and seminars to include an appreciation of the broader environmental issues. Consideration must be given to certifying operatives of waste disposal sites.

(g) To develop appropriate regulations, guidelines and procedures for the management of hazardous waste.

As noted in Section 1.3 above there are a number of existing legislative controls over hazardous materials. These need to be rationalised and updated to ensure the effective management of hazardous wastes in Tasmania. The Environment Protection Act 1973 is currently under review with a draft due for release for public comment by the end of 1992.

In addition it is essential that management systems will be developed which provide the framework for environmentally appropriate hazardous waste management. This includes a waste classification system, a manifest system, guidelines for the acceptance of waste to treatment facilities (eg. sewage treatment plants) and guidelines for the management of landfill sites.

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The State Government will ban the unacceptable uses of waste oil by 1995.

2.5 Incineration

2.5.1 Medical Waste

The Department of Health is presently considering the development of a medical waste incinerator as part of its program of management and disposal of medical wastes. The present shipment of approximately 10 tonnes per annum of cytotoxic wastes to Melbourne for incineration is only a temporary measure, occasioned by the lack of a suitable facility within this State. Significant quantities of particular medical wastes which should be incinerated are presently being disposed to landfill under the requirements of the Department of Environment and Planning's "Guidelines for the Disposal of Medical Wastes" (Appendix VI).

A number of companies have expressed interest in providing a medical waste service to the State, including the collection, transport and destruction of those wastes which are preferably disposed of by incineration. The size and dispersion of the State's population dictates that it is uneconomic, and unnecessary for more than one incinerator for this purpose to be installed to handle the volumes of medical waste generated. It is estimated that there are less than 1000 tonnes of medical wastes, requiring incineration produced in the State annually. However, certain other materials may be able to be destroyed in this manner and could contribute to a more successful operation.

The economics of using treated waste oil must be considered as an option, as fuel usage is a major part of incinerator running costs. One contractor in the State is constructing a plant to refine the oil by removing water and solids. There is no doubt that a strategy to deal with the waste oil problem may include the use of waste oil in a medical waste incinerator.

The operation of a medical waste incinerator anywhere in the State would require a licence under the Environment Protection Act, and would be subject to stringent licence conditions.

The State Government will, as soon as possible, finalise a strategy for the management of medical wastes, including a decision on the need for a dedicated medical waste incinerator.

2.6

Landfill

2.6.1 Secure Disposal Sites

Irrespective of the other aspects of the strategy to minimise waste production and recycle the waste produced there is still a need for secure disposal facilities for both planned and emergency disposal of hazardous wastes. The planned disposal of waste to landfill would include ash from incineration facilities, dewatered sludges encapsulated and immobilised wastes and contaminated soils. Emergency disposal of wastes to landfill would include building and

other residues from fires (eg. pesticide storage warehouses) and wastes collected following pollution incidents (eg. oil spills).

The location, size, design criteria and management guidelines for such facilities require development following the results of the Industrial Waste Survey.

The Solid Waste Management Strategy conceptualises at least three secure landfill sites for Tasmania based on the three major regions: northwest, north and south. The secure landfills would:

include synthetic and/or natural fibre liners to contain wastes;

have leachate collection and treatment;

have no civilian access;

require approved environmental management plans detailing the types of materials permitted and the method of disposal.

Sites maybe associated with storage and treatment facilities for particular wastes such as sludges, and would only be determined following an extensive public consultation process. The proposed process is detailed below:

(1) The establishment of a Task Force under the Waste Management Advisory Committee to co-ordinate the site selection process.

The Task Force should include representation from Local Government (eg. Institute of Municipal Engineers - Australia (Tasmania Division), State Government (Departments of Mines and Environment and Planning), the Tasmanian Conservation Trust and industry);

(2) The development of environmental and health criteria for the selection of a secure landfill.

(3) The release of the site selection criteria for public comment and consequent amendment of the criteria as appropriate.

(4) The evaluation of alternative sites to develop a list of preferred sites which meet these criteria. This step should be flexible enough to enable the registration of interest by individual Councils or private companies of possible sites for evaluation.

(5) The release of the list of potential sites for public comment. This step would include meetings with specific interest groups to provide additional information.

(6) The development of a short list of sites that meet the environmental and health criteria and are acceptable to the local communities.