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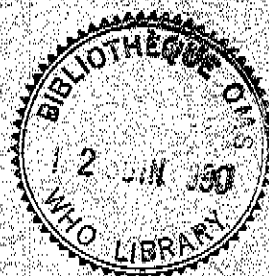
ORGANISATION MONDIALE DE LA SANTE
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ВСЕМИРНАЯ ОРГАНИЗАЦИЯ ЗДРАВООХРАНЕНИЯ
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SUMMARY REPORT



Working Group on Site Selection for
New Hazardous Waste Treatment and Disposal Facilities

Bilthoven, Netherlands
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EUR/HFA target 23

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TARGET 23

Protection from hazardous wastes

By 1995, all Member States should have eliminated major known health risks associated with the disposal of hazardous wastes.

Index:

HAZARDOUS WASTE - prevent/control
REFUSE DISPOSAL
SEWAGE
ENVIRONMENTAL HEALTH
EUR

The Working Group was organized by the WHO Regional Office for Europe and hosted by the Netherlands National Institute of Public Health and Environmental Protection (RIVM). It was attended by 10 participants from European countries, Canada and the United States and two observers from the host country.

The Group was made up of scientists, engineers and physicians with experience in the planning, design, implementation and management of government and nongovernment projects, policy development and direct contact with the public.

The objective of the meeting was to review a draft Code of Practice for the selection of locations for new facilities to receive, store, classify, reship, recycle, treat (neutralize or decompose), or contain hazardous waste in a manner safe and "friendly" to the environment. This report takes the content of the second draft of the Code into account and provides a guide for the preparation of the final document.

The Code of Practice is intended for use by countries in the WHO European Region. It applies, therefore, to a variety of natural environments, cultures, governments and economic situations. The Code and this summary recognize this variety in several of their conclusions and recommendations.

It was an underlying assumption of the Working Group that the citizens of all nations are entitled to adequate living standards, health and environmental quality. Clean air, land and water, towns and cities free of dangerous or unsightly industrial works, sound health, and an undiminished standard of living were acknowledged goals. The Code and this report attempt to deal with these goals in a realistic way, in particular recognizing that not all nations will achieve them in the same way or at the same time. The Code lays out a "menu" of policy and technical options and related management decisions that can be chosen and adapted by countries to suit their particular socioeconomic characteristics. While the various options will apply to different countries in different ways, some features of the Code apply to almost every European country. The Code addresses both technical and socioeconomic effects of hazardous waste management and disposal.

The Code of Practice is intended in particular to provide information and guidance to the following groups in all European nations and in communities within those nations:

- the middle management in national governments and all political subdivisions
- waste management specialists
- community and economic planners
- environmental regulatory agencies
- environmental interest groups
- the interested general public.

It was recognized that WHO documents are frequently used outside the Region for which they are prepared. Given the diversity that prevails in Europe, the Code is likely to be a useful document outside the European Region, but its worldwide application was not the primary objective.

The Code follows the generally accepted preferred hierarchy of hazardous waste management. This is elimination or reduction at the source, recycling

and reuse, treatment by neutralization, detoxification or thermal decomposition, and finally deposition in a secure location. Adequate information, thorough analysis of environmental effects, and full recognition of the social impact and process as it affects the host community were other leading principles of the second draft of the Code.

Conclusions

The following conclusions were reached by the experts in the Working Group, drawing on the siting processes, siting factors, management practices and evaluation methodologies described in the second draft Code.

1. Adequate and properly designed facilities for hazardous waste recycling, storage, transportation, treatment and disposal, at well selected locations, are a vital part of a comprehensive hazardous waste management system that will assure the protection of public health and safety, the natural environment and community values at all stages from generation to final disposal.
2. Failure to provide facilities will most likely result in substantial deferred costs in environmental damage and in clean-up. Facilities with even modest standards of compatible land-use and confinement are greatly to be preferred to a total lack of any facilities. Advanced industrialized nations should install up-to-date management and technological systems to achieve a minimum risk to health and the environment. All nations should establish a goal of adequate facilities. The export of waste from advanced industrialized nations should be discouraged.
3. The Working Group stressed the need for regulatory instruments that can be satisfactorily enforced to assure adequate control of waste collection, transportation and facility operation. Detailed descriptions of the regulatory measures referred to in the Code are given in other publications. The Code mentions only those related to the siting of facilities.
4. Safe facilities are possible with present technology. Experience would indicate that improvements in techniques will emerge as time progresses. These improvements may make it necessary to revise operating procedures during the life of the facility.
5. Strong emphasis was laid on the recycling of hazardous and industrial waste and on at-source reduction of quantity and hazards. The positive relation between reduction of waste and efficient production and the economic reasons for adopting clean technology and "good housekeeping" methods were noted. Waste reduction reduces the risk to health and the environment and inspires public confidence in the management system.
6. Economic constraints, especially in less prosperous nations and communities, will often dictate a stepwise programme of improvements until the best available technology can be installed. Where such technology is lacking, co-disposal of selected industrial or hazardous waste with municipal waste, for example, may serve as a temporary measure until better measures can be afforded. Cement kilns (which if properly used may be superior to incinerators designed for hazardous waste) may serve as temporary or long-term alternatives for many organic wastes. However, it must be recognized that there may be a greater degree of risk with phased expedients than with the

long-term goal. Management and regulatory control are essential and should always be as good as can be provided.

7. The techniques of recycling, treatment and containment and the techniques of evaluation can be explained in language understandable to interested members of the general public. In any project proposal, information on discharges to the environment and facility design features that minimize impact and risk should be included.

8. The understanding of social attitudes and human perceptions of the quality of life are important factors in the planning of a facility at any proposed location. Support for the establishment of a facility and its long-term acceptance are determined by these same factors. Full and continued education and disclosure to the public and the media of the essential features of the facility are necessary parts of public understanding.

9. A positive tone is important. Examples of waste facilities that are successful as "neighbours" to communities should be given in the Code. European experience should be cited in preference to North American.

10. Effective public participation and support are compromised if overriding government authority can be exercised too readily or if decisions on site selection are perceived to be determined in advance. Community support, induced by economic or other compensatory measures and supported by adequate understanding, is much to be preferred.

11. The "Basel Convention on the control of transboundary movements of hazardous waste and their disposal" provides that waste be disposed of as close to the point of generation as possible. This implies that support must be obtained for the need for a facility and for its location within the boundaries of the generating nation, state or province.

12. If circumstances dictate that communities or nations shall receive waste from other areas, the recipient should be compensated on a businesslike basis so that the receiving community is as well or better off after the transaction.

Recommendations

The following points should be emphasized in the final draft of the Code.

1. The Code should recommend that nations establish overall hazardous waste management systems incorporating long-term programmes and strategies for developing the necessary facilities. Plans should include integrated measures, with particular emphasis on waste reduction and recycling, and should explain and identify the responsibility for implementation, whether governmental or nongovernmental. The Code should provide examples and suggested alternative policies and measures to assist in the development of plans and strategies.
2. The Code should further note the need for strong regulation, although the details of the regulation are beyond its scope.
3. The Code should elaborate further on the four-level preference hierarchy of (a) good housekeeping and clean technology, (b) recycling, (c) treatment and (d) secure containment that is basic to sound management, and should confirm implementation of the hierarchy that is a necessary part of a management strategy.

4. Priorities for the development of facilities and related regulatory measures should be stated in the Code as follows:

- (a) promotion in the industrial community of good housekeeping and clean technology to reduce and recycle waste, using economic, informational and regulatory means: these measures are expected to increase industrial productivity;
- (b) removal of hazardous waste from discharges to the environment as completely and urgently as possible under the prevailing regulatory system;
- (c) improvement of expertise and equipment, aiming for best management standards and the best available technology;
- (d) containment, neutralization, detoxification, destruction or segregation of waste that is removed from the discharges.

5. The Code should emphasize that broad public understanding and support are desirable in three interrelated areas:

- (a) the competence and integrity of the regulatory system;
- (b) the process of deciding on the location of a facility; and
- (c) the need for the facility and the relation of need to waste reduction and recycling.

The Code should also stress that a broad-based information programme to inform interested parties and the media on the above points and on related matters should be an integral part of management.

6. The Code should recommend a voluntary siting process, with decision-making shared with local communities and people directly affected, as the preferred choice for deciding the location. However, the Code should recognize that other processes involving a more authoritative approach may be appropriate, especially under circumstances of immediate necessity.

7. The Code should emphasize that health and environmental factors, the strength and integrity of the regulatory authority, and the ability of the facility developer are basic to successful siting and long-term management. No matter which siting process is employed, regulatory and managerial standards should never be compromised.

8. Other points agreed to in discussions and recorded by the rapporteur should be incorporated in the final draft.