CONTROL AND REGULATION OF HAZARDOUS WASTES IN CUBA

Dra. Silvia Alvarez Rossell. Director
Ing. Jorge Alvarez Alvarez. Chief Of Department

ENVIRONMENTAL INSPECTION AND CONTROL CENTER(CICA). CUBA
Calle 20 esq. 18ª . Playa. La Habana, Cuba
Tel.(537) 227573
FAX.(537)227030
(537)242676
E- MAIL: silvia.cica.cu.unep.net

ABSTRACT

Cuban industry is being developed and a special care must be taken about waste generation particulary hazardous wastes.

Environmental Inspection and Control Center(CICA) as National Authority for control and regulation of hazardous wastes has establisher for control hazardous waste mangement and disposal.

These indications promote the use of cleaner technologies to minimize waste generation, the recycling and recovery of wastes and proper treatment and final disposal method for hazardous wastes.

Besides, these indications establish sound management conditions that are required in storarge places for these wastes if any treatment or final disposal method is not available.

INTRODUCTION

Cuban economic recovery is a reality nowadays. One of the most important items of it is the development of the cuban industry like: petroleum, mining, sugar cane and tourism. However, it is necessary to take an special care with waste generation, particularly hazardous wastes.

Environmental Inspection and Control Center(CICA) is the Nacional Authority in Cuba for control of hazardous waste management and disposal. This Center is also Competent Authority and Focal Point of Basel Convention for the control of transboundary movements of hazardous wastes.
This Center has established indications and procedures in order to regulate and control hazardous waste management and disposal.

This work presents how control and regulation of hazardous wastes are carried on in Cuba and how Cuba implements the Basel Convention statements.

**LEGAL BASE**

The legal framework for the control of hazardous wastes are:

- Environment Law, which is in force since 1997. Chapter IV of Title 13th states that import of hazardous wastes requires authorization from Competent Authority and export and management are regulated by this authority.

- Resolution 15/96 from Science, Technology and Environment Ministry that states how control of hazardous wastes is carried out according to Cuban particularities as part state of Basel Convention, mainly as transit state. The list of hazardous wastes that are controlled in Cuba is included at the resolution. This list is the same approved by Basel Convention.

This resolution also states that the import of hazardous wastes for disposal, or elimination is banned.

**TRAFFIC CONTROL**

For the implementation of the control of transboundary movements of hazardous wastes in order to prevent illicit traffic, Cuba has an integrated work between Cuban Custom and Cuban Competent Authority as main element for the Control. The coded list of Custom is updated to improve the control and capacity building activities are carried on for customers.

To prevent illicit traffic Cuba Competent Authority works together with other Authorities. Marine Security Body and Border Protection Body. Cuban Competent Authority is also in touch with other National Competent Authorities to exchange information and data to ensure the control of all hazardous waste movements.

**MANAGEMENT AND DISPOSAL CONTROL**

For the control of hazardous waste management and disposal inside Cuba, indications were elaborated by CICA as National Authority that regulates management and disposal of hazardous wastes in Cuba.
Principal indications are:

- Any management activity of hazardous wastes requires a permission from National Authority or one of the Territorial Authorities according to the type of activity.

- The disposal of hazardous wastes in dumps is banned.

- The use of recycling and recovery alternatives for treatment or disposal of hazardous wastes.

- The obligation to keep confined under controlled conditions these wastes if any option for treatment or disposal is not available. The requirements to confine a hazardous waste were established. They include: characteristics of storage, ground, air circulation, etc.

- The use of cleaner technologies to minimize waste generation. It includes modifications in processes or activities in order to make cleaner the technology.

- The use of proper methods for treatment or disposal, according the waste characteristics.

- There is a priority for some types of wastes, which are the most common generated in Cuba.

They are:

1. Metal wastes with cadmium, mercury and lead.

2. Wastes having as constituents or contaminants: cadmium, lead, arsenic and mercury.

3. Waste having as constituents hexavalent chromium compounds.


5. Ashes from the incineration of isolated copper wire.

6. Waste having as constituents cupric chloride and copper cyanides.

7. Waste lead-acid batteries, whole or chushed.

8. Waste electrical and electronic assemblies or scrap containing components such as accumulators and other batteries, mercury switches, glass from cathode-ray tubes and other activated glass and capacitors or other articles with polychlorinated biphenyls(PCBs) and/or polychlorinated terphenyls(PCTs) and/or polybrominated biphenyls(PBBs)

10. Waste asbestos (dusts and fibres).

11. Waste from the production or processing of petroleum.


13. Wastes from production, formulation and use of resins, latex, glues and adhesives, excluding water-based, glues based on casein starch, dextrin, cellulose ethers and polyvinyl alcohols.

14. Waste phenols and phenol compounds.

15. Waste organic phosphorous compounds.


17. Waste from the production, preparation and use of pharmaceutical products and waste pharmaceuticals, drugs and medicines.

18. Clinical wastes from medical care in hospitals, medical centers and clinics.

19. Wastes from the production, formulation and use of biocides and phytopharmaceuticals, including waste pesticides and herbicides which are off-specification or outdated.

20. Wastes from the manufacture, formulation and use of wood-preserving chemicals.

21. Wastes that contain, consist of or are contaminated with inorganic or organic cyanides.


23. Waste from the production, formulation and use of inks, dyes, pigments, paints, lacquers and varnishes, excluding water-based/latex paints, inks and varnishes not containing heavy metals or biocides.

24. Wastes of an explosive nature.

25. Waste acidic or basic solutions excluding solutions with a PH greater than 2 and less than 11.5, which are not corrosive or otherwise hazardous.

26. Waste consisting of or containing off specification or outdated chemicals.
27. Spent activated carbon excluding spent activated carbon resulting from the treatment of potable water and processes of the food industry and vitamin production.

Final disposal of used tyres (which are not hazardous wastes) have to be controlled. They can not be disposed at dumps.
National Authority has also elaborated the procedure to give permissions by local authorities for management and disposal of hazardous wastes into their local region. The procedure establishes how to control the movements of hazardous wastes from a territory to another inside Cuba for their treatment or final disposal.

The procedure also includes an explanation about import and export permissions, which only National Authority is allows to give.

All these indications and procedures are controlled by means of Environmental Inspections.

Environmental Impact Evaluation Process takes into account these indications in order to give an Environmental License.

Each territorial or local authority has the register and the control of the total volume of hazardous wastes that are generated, treated and disposed into the territory.

The territorial authority checks the compliance of all requirements contained in the permission given for the management and disposal of a hazardous waste at the territory.

Nacional Authority controls all of this work.

**CONCLUSIONS**

All these regulations are being applied at all territories in Cuba. It allows to control import, export, transboundary movements, generation, treatments and disposal of the total volume of hazardous wastes that are managed in Cuba. However, Cuba as a developing country has not all the facilities that would need to treat all hazardous wastes generated. So, it is necessary to maintain confined part of these wastes until a proper method for treatment or final disposal is available. Furthermore, the control is very important to protect environment.

All procedures for the control are being improved by National Authority and local authorities in a continuous way.