



**Environmental Impact Assessment for the Portmore  
International Hospital and Medical Center, Portmore, St.  
Catherine, Jamaica**

**Prepared for  
Cayjam Development Limited**

**Review done by the  
Jamaica Environment Trust**  
11 Waterloo Road  
Kingston 10

**With technical assistance from the  
Environmental Law Alliance Worldwide**  
Eugene, Oregon  
USA

February 2010

*This document contains the professional opinion of the Jamaica Environment Trust (JET). In arriving at our opinion, we have made every reasonable attempt to ensure that our resource persons are informed and reliable and experts in the area in which their comment and analysis is sought. JET encourages readers to apply their own critical analysis to the information provided in this document and by others, particularly where JET's opinion differs from those others.*

### **Summary Statement**

With technical assistance from the Environmental Law Alliance Worldwide (ELAW), the Jamaica Environment Trust (JET) evaluated the Environmental Impact Assessment (EIA) of the Portmore International Hospital and Medical Center in Portmore, St. Catherine, Jamaica prepared by various environmental consultants for Cayjam Development Limited.

JET has the following concerns with the EIA:

#### **1. The EIA proposes use of an on-site incinerator for the treatment and disposal of medical waste**

Page 25 of the EIA states: "It is envisaged, that about 480-500 kg of solid waste will be generated from the project, and in this about 48-50 kg of Bio-medical waste will be generated.

During the construction and operation phases, solid waste will be transported to the city's waste disposal site at Riverton City. All hospital waste deemed hazardous to the environment, will be dealt with by the hospital incinerator."

JET is strongly opposed to the use of medical waste incinerators for the following reasons:

- Medical waste incinerators are unnecessary (medical waste disinfection can be accomplished using an autoclave or steam sterilization unit).
- The operation of medical waste incinerators by hospitals in developing countries (and even in developed countries) has an extremely poor track record of generating substantial quantities of dioxin and other persistent organic pollutants.

The Executive Summary in Page viii of the EIA states: "The hospital plans to install and use an autoclave instead of an incinerator in the short term and as a backup to the gasification plant."

Although this is discussed nowhere else in the EIA, the proponents of the project need to thoroughly investigate the option of using an autoclave instead of an incinerator as a

permanent means of treating infectious medical waste.

## **2. The EIA fails to quantitatively predict the impacts of incinerator air pollutant emissions on ambient air quality and on human health**

With regard to the impacts of incinerator air pollutant emissions on ambient air quality and on human health , page 65 of the EIA states only:

"Incinerator: There is intense concern about the emissions of chemicals from incinerators, and its possible effects on humans. There are two main outputs of incinerators: ash, and the emission to the atmosphere of flue gases. Flue gases may contain significant amounts of particulate matter, heavy metals, dioxins, furans, CO<sub>2</sub>, SOX and hydrochloric acid. Dioxins and furans are of most concern to Environmentalists. Table 29 shows a number of air pollutants, which can be found in incinerator emissions. The hazard shown is usually very much related to the dose and therefore it cannot be assumed that emissions of low levels of the substances will result in measurable health effects, although a precautionary approach would mean that increases in levels of persistent toxic chemicals should be avoided."

This proposed means of assessment is unacceptable. If the proponents of the project want to use an incinerator, then they must use a computer model, information about local conditions (baseline air quality, land uses, demographics) and information about potential emissions from the proposed incinerator (including emissions of dioxin under a worst-case scenario) to quantitatively predict how emissions of pollutants from the proposed incinerator would increase ambient air levels of pollutants and human exposure to dioxins, particularly via the food chain.

## **3. Maintenance and operation of Incinerators**

JET is aware that NEPA has conducted surveys of incinerators operating in Jamaica and found almost all fail to meet air quality standards. We do not understand why this method of treating hospital waste is being contemplated at all, given the risks to air quality and public health and our poor record of maintaining incinerators. Further, it is our understanding that NEPA has investigated autoclaves as a method of treating hospital waste and is in favour of this method. JET believes this is a retrograde step.

## **4. Policy on Treatment of Medical Waste**

JET would like to know the status of the policy on medical waste handling and treatment and whether incineration is being contemplated.

**Submitted by:**  
**Jamaica Environment Trust**  
**February, 2010**