

TERMS OF REFERENCE FOR **PROJECT COMPONENT C**
Ship Generated Waste Reception Facility

Name of TC project: Institutional Strengthening to Support Environmental Management of Kingston Harbor

IADB project number: TC-02-01-04-8-JA

Executing agency: National Environment and Planning Agency, an agency of the Ministry of Land and Environment

Duration of this TOR: April 2004 – December 2004

A. Background:

- 1.1 This TOR pertains to one of four components comprising the Kingston Harbor Environmental Management Technical Cooperation Grant (TC-02-01-04-8-JA), and consists of supporting the Maritime Authority of Jamaica in preparing the required feasibility studies and preparing tender documents to attract investment in a ship waste reception facility that would reduce the burdens of ship waste affecting Kingston Harbor. There are three basic activities within this component. The total budget of the TC Grant is US\$620,000, of which US\$500,000 consists of an IADB grant and \$120,000 from local GOJ contributions. The National Environment and Planning Agency (NEPA) has been selected as the Executing Agency because of its overarching and cross-sectoral influence in matters pertaining to the environmental quality of Kingston Harbor.
- 1.2 The contamination of the Kingston Harbor is a longstanding problem requiring urgent attention. For many decades, Jamaican Authorities have made efforts to deal with the environmental problems of the Kingston Harbor. These efforts have had very limited success in abating environmental pollution of the Harbor, in part due to a lack of clarity regarding responsibility, as well as accountability for regulatory actions, and duplication of efforts due to poor or non-existent coordination among agencies.
- 1.3 Comprehensive studies of Kingston Harbor revealed that the quality of its water has been deteriorating as the result of four principal sources of contamination: (1) untreated sewage, (2) industrial discharges (directly to the waterway as well as leaching and runoff from local solid waste landfills receiving industrial waste), and (3) dumping of untreated ship wastes, and (4) agricultural runoff. The issue of sewage treatment is being addressed through the Bank's Water and Sanitation Project (JA-0114) that will result in construction of new wastewater treatment facilities (See section 1.4 below). The Technical Cooperation Project will address two of the three remaining sources, industrial discharges and release of ship waste into the Harbor, while these Terms of Reference

pertain specifically to the latter. Problems stemming from agricultural runoff lie beyond the scope of this project.¹

- 1.4 Three organizations have primary responsibility over all commercial activities in the Port of Kingston, the Port Authority of Jamaica (PAJ), the Maritime Authority of Jamaica, and the Shipping Association of Jamaica (SOJ). In addition, a National Steering Committee over Kingston Harbor has been in existence in various forms since 1993.
- 1.5 The PAJ was established as a statutory body under the Port Authority Act of 1972. The PAJ has the responsibility to provide, operate and maintain Jamaica's port facilities, including the Port of Kingston in Kingston Harbor, and to regulate the movement of boats and vessels in Jamaican harbors.
- 1.6 The Maritime Authority of Jamaica (MAOJ) is the principal sponsor of the component of this component pertaining to the construction of a Ship Waste Reception Facility. Other sponsors include the SOJ, Scientific Research Council of Jamaica (SRCJ), and the Shipping Association of Jamaica (SAJ). The MAOJ was established to implement the provisions of the Shipping Act of 1998, (which itself provides for the establishment of maritime administration). The MAOJ has responsibility for registering vessels and to regulate the certification of seafarers, to regulate the safety of shipping as regards the construction of ships and navigation, to inspect ships for the purposes of maritime safety and prevention of marine pollution, to make enquiries as to shipwrecks or other casualties affecting ships, to establish maritime training and safety standards, and to administer policy for the development of shipping in general.
- 1.7 Although the MAOJ will be the principal liaison and technical lead for this component, Consultants working on this TOR will also be responsible for reporting to the NEPA Project Coordinator.
- 1.8 Several feasibility studies have been completed on a Ship Waste Reception Facility. Technical research and development of the component of this Project pertaining to the construction of a Ship Waste Reception Facility has been completed by the Scientific Research Council of Jamaica (SRCJ). The SRCJ was established in 1960 as the principal public sector agency to foster and coordinate scientific research and to encourage the application of such research to the development of the resources of the country. The Council plays a key role in policy implementation and has the responsibility to guide research into channels that will strengthen Jamaica's economic and social structure.
- 1.9 The Shipping Association of Jamaica (SAJ) is also a cosponsor of the Ship Waste Reception Facility component of this Project. The SAJ represents 60 companies in the private sector of the island's shipping industry. Membership includes shipping agents, wharf owners, terminal operators and stevedoring companies, together with ship owners and operators. The SAJ deals with all matters affecting the interest of its membership

¹ A series of reports were completed in the early 1990's by SENTAR Consultants Ltd (now Stantec Consulting Intl. Ltd.) as part of the Kingston Harbor Environmental Project, funded jointly by the World Bank and CIDA.

including industrial relations, security and training and also liaises with government and other trade bodies.

- 1.10 The National Environmental and Planning Agency has been selected by the GOJ and the Bank to be the executing agency for the overarching TC, because of its cross-sectoral influence in matters pertaining to the environmental quality of Kingston Harbor. With its recent reorganization and several progressive new initiatives, NEPA is poised to play a more direct and proactive role in the legislation and administration of the environmental management of Kingston Harbor. In June of 2001, NEPA introduced the basis for a new basis for moving industrial discharges towards compliance (“Towards a National Policy and Strategy on Environmental Management Systems”, Green Paper No. 2/01), which will complement more aggressive “polluter-pays” enforcement activities. Finally, NEPA has an established history of working together with the large number of agencies involved in environmental matters.

B. Purpose:

The two primary objectives of the *overarching TC project* are:

- a) To facilitate the institutional arrangements best suited to coordinate the diverse stakeholders and activities that impact upon the current state of the Harbor, and
- b) To support pre-investment efforts to address major pollutant sources.

The purpose of *this component* is to advance the documentation required to bring the proposed Waste Reception Facility to a point where a call for bids can be issued. This facility would help reduce pollution loadings discharged to the Kingston Harbor. The funding source(s) for the facility has not yet been identified. The primary responsibilities of the Consultant is to draft the document for ownership, investment and operating structure of the facility as well as to prepare the financial model and tender. The proposed facility would also allow Jamaica to fulfill its obligation as a member of the International Maritime Organization’s International Convention on the Prevention of Pollution from Ships (1973) and its Protocol of 1978 (MARPOL).

C. Target Objective/Success Indicator:

- 1) The success of this activity will be measured by the completion of tender documents ready for use by the Maritime Authority of Jamaica in attracting offers for investment in the Ship Waste Reception facility.

D. Contracting of Consultants

This component will be carried out by consultants working closely with and under the direction of NEPA staff, either as an independent endeavor, or in conjunction with other of the five activities comprising the overarching TC. While NEPA is the executing agency for this grant,

the Maritime Authority of Jamaica will play a lead role in the development of the financial model and tender documentation. For the purposes of selecting a Consultant, the Maritime Authority of Jamaica should adopt the selection methodology used by NEPA that has passed the IADB “no objection” review process. Selected consultants will be subject to approval by Bank staff.

E. Tasks/Scope of Work

Work Plan task C1 *Develop options for ownership, investment and operating structure*

After having identified and reviewed all relevant documentation pertaining to the proposed ship waste reception facility, Consultant will meet with MAJ and other GOJ project sponsors as well as potential investors, and draft an options document presenting various schemes for ownership, investment and operating structure. This work should be guided by two overriding criteria: 1) the options explored in the resulting document should meet the needs expressed by the GOJ sponsors, and 2) the options must be structured to attract investors and bids in the desired facility. The Consultant should not only elicit opinions from the MAJ and other GOJ sponsors but should also provide insights into the types of schemes and structuring alternatives that might be considered by the MAJ. After options have been presented to the GOJ sponsors, the Consultant will provide support as needed to the Maritime Authority of Jamaica in selecting the preferred choice from among the options.

Consultant qualifications: 10 years experience developing financial schemes, as well as structuring and attracting investments in civil infrastructure. Educational background in finance and/or civil engineering. Preferable prior project experience in Jamaica.

Person Days: 20 days

Deliverable Products: Document presenting and describing a range of options for structuring and attracting investment in the proposed ship waste reception facility.

Work Plan task C2 *Develop financial and technical model*

Based on the ownership and operational scheme selected by the GOJ, Consultant will develop a financial model (supported by an underlying technical model of operational inputs) describing the expected cash flow, revenue, and return on investment of the proposed facility. The model will require both technical and financial components to accurately describe the operation of the proposed facility, and will form the technical basis for subsequently developed bidding documents. The technical model will request that both the construction and operation of the facility be environmentally feasible and that negative impacts are mitigated. Consultants will need to review existing data and collect additional data on site to enable accurate inputs to the model.

Consultant #1 qualifications: Same as for Task C1 above

Consultant #2 qualifications: 10 years experience in modeling and evaluating civil or industrial infrastructure processes. Advanced degree in civil, environmental or industrial engineering. Experience interfacing with finance specialists in project development. Preferable prior project experience in Jamaica.

Person Days for Consultant #1: 20

Person Days for Consultant #2: 20

Total Person Days: 40

Deliverable Product: A financial model of the proposed waste reception facility supported by underlying technical model describing key operating parameters.

Work Plan taskC3 *Develop “bid ready” tender documents*

Using the chosen structural alternative and financial model from Tasks 1.0 and 2.0, Consultant will prepare all required tender documents, bringing them to a form ready for public announcement. Consultant will also support the MOJ in placing public announcements and marketing the opportunity to targeted investors.

Consultant qualifications: Same as for Task C1 above

Person Days: 20

Deliverable Product: “bid ready” tender document prepared and announcements placed advertising the investment opportunity in the waste reception facility.