



**Review of the NRCA Draft Guidelines  
for the Owners and Operators of Pre-Treatment Plants  
which Discharge Trade Effluent into a Sewerage System**

**Review prepared by:**

**Jamaica Environment Trust**

11 Waterloo Road

Kingston 10

**With technical assistance from the  
Environmental Law Alliance Worldwide**

Eugene, Oregon

USA

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***This document contains the professional opinion of the Jamaica Environment Trust (JET). In arriving at our opinion we 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.***

With technical assistance from the Environmental Law Alliance Worldwide (ELAW) in Eugene, Oregon, the Jamaica Environment Trust (JET) reviewed the Natural Resources Conservation Authority's (NRCA) Draft Guidelines for the Owners and Operators of Pre-Treatment Plants which Discharge Trade Effluent into a Sewerage System (2015).

The Draft Guidelines have commendable and necessary objectives, as stated in the Introduction (Section 1):

“The objective of this document is to provide guidance in the establishing, operating and maintaining of pre-treatment facilities in order to:

- a prevent the introduction of pollutants that could damage the wastewater collection and conveyance facilities or interfere with the operations of the receiving Treatment Works;
- b prevent untreated/inadequately treated wastewater or sludge from passing through the receiving Treatment Works, entering, and subsequently polluting the environment; and
- c promote information on best practices for pre-treatment of industrial wastewater prior to final treatment by the receiving Treatment Works.”

The primary means of for achieving these objectives are set out Section 6 (Regulatory Requirements) and Section 7 (Pre-Treatment Recommendations).

**The fundamental problem with the means for achieving these objectives set out in Section 6 and Section 7 are that they are generic and ignore a vast body of industry-specific regulatory standards that should inform environmental regulators in Jamaica about how to achieve the objectives set out in Section 1 of the Draft Guidelines.**

For example, Section 7 of the Draft Guidelines imposes the following generic regulatory requirement:

“The owners and/or operators of the pre-Treatment Works should provide the Authority with the following information:

- pre-treatment requirements and the nature of the pre-treatment processes;”

Similarly, the Draft Guidelines contain the following generic recommendation:

“Pre-treatment facilities should perform all the necessary wastewater and sludge treatment required to assure compliance of the licensed Treatment Works with the conditions of its discharge licence. The pre-treatment plant should meet the requirements set out by the owner/operator of the Treatment Works into which it discharges the effluent. The requirements should include but not be limited to compatible parameters in quantities that do not harm or injure the design or technology installed in the Treatment Works.”

The above requirement in Section 7 and the above recommendation in Section 8 are generic in the sense in that they fail to specify numerical targets for maximum permissible levels of contaminants based on the nature of industrial process. Under the scheme set out in Section 6 and Section 7 of the Draft Guidelines, these numerical targets would be specified on an *ad hoc* basis each time written approval is granted to a discharger.

This approach ignores a vast body of industry-specific regulatory standards that could inform environmental regulators in Jamaica about numerical targets for maximum permissible levels of contaminants that dischargers in Jamaica should comply with in order to meet the objectives of the Draft Guidelines.

For example, under the Clean Water Act, the U.S. EPA (which is cited to in the Bibliography of the Draft Guidelines), imposes industry-specific standards dozens of categories and sub-categories of industrial processes:

<http://www.epa.gov/eg/industrial-effluent-guidelines>

Dairy Products Processing  
Grain Mills Manufacturing  
Canned and Preserved Fruits and Vegetable Processing  
Canned and Preserved Seafood (Seafood Processing)  
Sugar Processing  
Textile Mills  
Cement Manufacturing  
Concentrated Animal Feeding Operations (CAFO)  
Electroplating  
Organic Chemicals, Plastics and Synthetic Fibers (OCPSF)  
Inorganic Chemicals  
Soap and Detergent Manufacturing  
Fertilizer Manufacturing  
Petroleum Refining  
  
Iron and Steel Manufacturing  
Nonferrous Metals Manufacturing  
Phosphate Manufacturing  
Steam Electric Power Generating

Ferroalloy Manufacturing  
Leather Tanning and Finishing  
Glass Manufacturing  
Asbestos Manufacturing  
Rubber Manufacturing  
Timber Products Processing  
Pulp, Paper and Paperboard  
Meat and Poultry Products  
Metal Finishing  
Coal Mining  
Oil and Gas Extraction  
Mineral Mining and Processing  
Centralized Waste Treatment  
Metal Products and Machinery  
Pharmaceutical Manufacturing  
Ore Mining and Dressing (Hard Rock Mining)  
Transportation Equipment Cleaning  
Paving and Roofing Materials (Tars and Asphalt)  
Waste Combustors  
Landfills  
Paint Formulating  
Ink Formulating  
Airport Deicing  
Construction and Development  
Concentrated Aquatic Animal Production (Aquaculture)  
Gum and Wood Chemicals  
Pesticide Chemicals  
Explosives Manufacturing  
Carbon Black Manufacturing  
Photographic  
Hospitals  
Battery Manufacturing  
Plastics Molding and Forming  
Metal Molding and Casting (Foundries)  
Coil Coating  
Porcelain Enameling  
Aluminum Forming  
Copper Forming  
Electrical and Electronic Components  
Nonferrous Metals Forming and Metal Powders

<http://www.epa.gov/eg/learn-about-effluent-guidelines>

In turn, each of these industry-specific effluent limitation guidelines contains both:

**Pretreatment Standards for New Sources** is defined at CWA section 307(c). PSNS are national, uniform, technology-based standards that apply to dischargers to publicly owned treatment works (POTWs) from specific industrial categories (i.e., indirect dischargers). They are designed to prevent the discharges of pollutants that pass through, interfere with, or are otherwise incompatible with the operation of POTWs.

**Pretreatment Standards for Existing Sources** is defined at CWA section 307(b). Like PSNS, PSES are national, uniform, technology-based standards that apply to indirect dischargers. They are designed to prevent the discharge of pollutants that pass through, interfere with, or are otherwise incompatible with the operation of POTWs.

Dischargers subject to PSES are required to comply with those standards by a specified date, typically no more than three years after the effective date of the categorical standard.

For example, Effluent Limitation Guidelines for the Leather Tanning Industry contain the following and Pretreatment Standards for Existing Sources and Pretreatment Standards for New Sources.

**§425.15 Pretreatment standards for existing sources (PSES).**

(a) Except as provided in §425.04 and 40 CFR 403.7 and 403.13, any existing source subject to this subpart which introduces process wastewater pollutants into a publicly owned treatment works must comply with 40 CFR part 403, and achieve the following pretreatment standards:

Pollutant or pollutant property	PSES	
	Maximum for any 1 day	Maximum for monthly average
	Milligrams per liter (mg/l)	
Sulfide .....	24	.....
Total chromium .....	12	8
pH .....	(1)	(1)

<sup>1</sup> Not less than 7.0.

(b) Any existing source subject to this subpart which processes less than 275 hides/day shall comply with §425.15(a), except that the total chromium limitations contained in §425.15(a) do not apply.

**§425.16 Pretreatment standards for new sources (PSNS).**

Except as provided in 40 CFR 403.7 and 425.04, any new source subject to this subpart that introduces process wastewater pollutants into a publicly owned treatment works must comply with 40 CFR part 403, and achieve the pretreatment standards contained in §425.15.

Rather than the generic approach of the Draft Guidelines, it would be more efficient, fair and effective for Jamaica to apply, at least as a default assumption, the numerical targets for maximum permissible levels of contaminants contained in the industry-specific Pretreatment Standards for Existing Sources and Pretreatment Standards for New Sources developed by the United States Environmental Protection Agency (US EPA) under the Clean Water Act.

Secondly, we have concerns that these are merely guidelines. JET believes the numerical targets should be contained in regulations to the NRCA Act, and therefore have the force of law.

***Jamaica Environment Trust***  
***21 December 2015***