An aerial photograph of Edmonton, Alberta, showing the city skyline with various skyscrapers, a large green park area, and the North Saskatchewan River flowing through the city. A bridge crosses the river in the foreground.

POLLUTION PREVENTION

For Operations Associated with Boiler Discharge and Maintenance:

A GUIDE FOR BUSINESSES AND INDIVIDUALS

Preserving Edmonton's Sustainability

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CONTAIN, CALL and CLEAN

POLLUTION PREVENTION FOR OPERATIONS ASSOCIATED WITH BOILER DISCHARGE AND MAINTENANCE

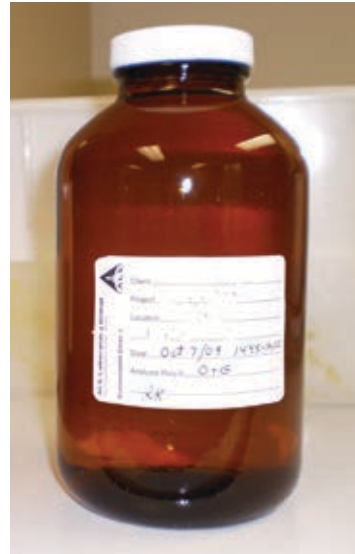
Wastewater (including complete blow-down) from boiler systems should only be discharged to the sanitary sewer system if pollutants are within Drainage Bylaw 16200 restricted limits. Other sources of wastewater produced in maintaining or cleaning boiler systems must also meet Drainage Bylaw 16200 restricted limits. The main parameters of concern are:

- Molybdenum
- Nitrite/ Nitrates
- Phosphate
- Zinc
- Boron
- Copper
- BOD (Biochemical Oxygen Demand)
- COD (Chemical Oxygen Demand)
- pH
- Temperature
- Total Suspended Solids
- Oil and Grease
- Hydrocarbons



To establish if parameters are within the restricted limits, a sample can be collected from the flow monitoring point for the property such as a manhole. If no manhole is available, an alternative sampling location should be established, such as a clean-out for the building.

In the case of ensuring compliance with restricted metals and hazardous waste limits (nitrite/nitrates, phosphate, pH, molybdenum, zinc, boron, and copper), samples should be collected directly from the point of discharge from the boiler. Since these parameters have the potential to cause adverse impacts on the wastewater treatment process, there needs to be efforts to remove these at the source.



Outdated additives and test reagents shall be recycled as per manufacture specifications to ensure compliance with Drainage Bylaw 16200 and the Municipal Solid Waste Regulations.

LIMITS FOR THE DISPOSAL OF RESTRICTED WASTE (COMPLETE BOILER BLOW DOWN AND WASTEWATER PRODUCED FROM CLEANING) TO THE CITY OF EDMONTON'S SEWERAGE SYSTEM

RESTRICTED CONCENTRATIONS:

- pH of less than 6.0 and not greater than 11.50
- Temperature > 75° C
- Suspended solids - 5000 mg/L
- Copper - 1.0 mg/L
- Oil & grease - 500 mg/L
- BOD - 10,000 mg/L - elevated by Glycol (Ethylene, Propylene)
- COD - 20,000 mg/L - elevated by Glycol (Ethylene, Propylene)
- Molybdenum - 5.0 mg/L
- Boron - 500 mg/L
- Nitrite - 100 mg/L
- Nitrate/Nitrite combined - 1000 mg/L
- Total Phosphorus - 200 mg/L
- Zinc - 2 mg/L
- Hydrocarbons - 50 mg/L

Dilution with domestic water for the sole purpose of meeting these limits is prohibited.



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ACCIDENTAL RELEASES OF WASTE MATERIAL

Any person who releases or permits the release of wastewater such that the concentrations exceed the limits indicated on page 4, shall immediately report the release. This should be reported to 311, The owner of the Premises from which release originated and any other person that may be directly affected by the release.

DRAINAGE SERVICES SPILL REPORTING CONTACT: 311

Report spills and
releases immediately to **311**

BEST MANAGEMENT PRACTICES FOR BOILER ROOMS

- Store all chemicals - large and small amounts - in secondary containment (bermed area)
- Identify locations of floor drains and sumps in mechanical/boiler rooms
- Have spill kits on hand to clean up any spilled material to prevent it from entering into the drainage system
- Possibly plug floor drains if not in use to prevent any spilled chemicals from entering the sewer system
- Ensure all chemical containers have covers securely fixed
- Conduct routine inspections to check for leaks in the steam line and traps
- Replace boiler treatment agents with products that do not contain ingredients outlined on the restricted parameters list on page 4



CONTAIN, CALL and CLEAN



REPORTING REQUIREMENTS

- a) the name of the person causing or permitting the release;
- b) the location of the release;
- c) the name of the person reporting the release;
- d) the date and time of the release;
- e) the type of material released and any associated hazards;
- f) the volume of material released; and
- g) corrective action taken or anticipated to control the release.

Report spills and
releases immediately to **311**



FOR MORE INFORMATION CONTACT
REGULATORY SERVICES INDUSTRIAL
WASTEWATER CONTROL AT:

[780-496-4347](tel:780-496-4347) OR [780-496-8971](tel:780-496-8971)