Reviewers at the Environmental Approvals prepare the ECA electronically prior to making a recommendation to the Director for Approval. In order to facilitate the Reviewer's preparation of the CofA, Practitioners will, as a best practice, use standard wording when describing the sources to be approved. The purpose of preparing a source description with the application is to allow the Reviewer to manipulate the information and improve the efficiency of the ECA preparation.

Practitioners will as a best practice when preparing the source descriptions:

- Use Canadian/Metric units of measure (no short forms)
- Try not to use acronyms
- Use Canadian spelling
- Use the font: 12 pt. Times New Roman
- Use consistent significant figures when providing stack information ($X.XX \times 10^{Y}$)

Practitioners will as a best practice provide the following minimum "KEY" information:

- source description
- source identifier – will be the same as the ESDM (Source Summary Table, Site Plan, modeling, etc.)
- maximum thermal input rating (if applicable)
- filter area (if applicable)
- flow rate
- exit dimensions
- stack height above the roof (must match the modeling and ESDM)
- stack height above grade (must match the modeling and ESDM)

The following are example source descriptions for common types of equipment or sources:

Exhaust for a Generic Process

- one (1) exhaust system serving a laboratory fume hood, discharging to the atmosphere at a maximum volumetric flow rate of ??? cubic metres per second through a roof stack identified as source EX-22, having an exit diameter of ??? metres, extending ??? metres above the roof and ??? metres above grade;

- one (1) 5-stage wash system equipped with a natural gas-fired burner having a thermal input rating of ??? kilojoules per hour, discharging to the atmosphere through two (2) roof stacks identified as sources ??? and ???, each having a maximum volumetric flow rate of ??? cubic metres per second, each having an exit diameter of ??? metres, each extending ??? metres above the roof and ??? metres above grade;

- one (1) general exhaust fan serving the welding area, discharging to the atmosphere at a maximum volumetric flow rate of ??? cubic metres per second, through a roof stack identified as source No.1, having an exit diameter of ??? metres, extending ??? metres above the roof and ??? metres above grade;

- one (1) above-ground storage tank designated as Tank No.10, having a capacity of ??? litres, for the storage of slop associated with the Light Sour Blend (LSB) refining process, equipped with an internal floating roof, having a height of ??? metres above grade and discharging passively to the atmosphere;

- one (1) exhaust system serving four (4) chrome plating tanks, equipped with four (4) dry scrubbers directed to a common header, discharging to the atmosphere at a total volumetric flow rate of ??? cubic metres per second, through a single roof stack identified as source SCB-01, having an exit diameter ??? metres, extending ??? metres above the roof and ??? metres above grade;

Combustion Equipment

- one (1) natural gas-fired heating unit having a maximum thermal output rating of ??? kilojoules per hour, discharging to the atmosphere through a roof stack identified as source Stack No.3, having an exit diameter of ??? metres, extending ??? metres above the roof and ??? metres above grade;

- twelve (12) natural gas-fired unit heaters (identified as sources H1 to H12, inclusive) for comfort heating, having a total thermal input of ??? kilojoules per hour;

- one (1) natural gas-fired heating, ventilation, and air conditioning unit, having a maximum thermal input rating of ??? kilojoules per hour;

- one (1) natural gas-fired drying oven, with a maximum thermal input of ??? kilojoules per hour, discharging to the atmosphere at a maximum volumetric flow rate of ??? cubic metres per second, through a roof stack identified as source 3A, having an exit diameter of ??? metres, extending ??? metres above the roof and ??? metes above grade;

Gen Sets / Diesel-fired Equipment

- one (1) diesel-fired emergency generator rated at ??? kilowatts, discharging to the atmosphere at a maximum volumetric flow rate of ??? cubic metres per second through a roof stack identified as source Gen-5, having an exit diameter of ??? metres and extending ??? metres above grade;

Baghouse, Cyclone and Basic Dust Collectors

- one (1) wet electrostatic precipitator, discharging to the atmosphere at a maximum volumetric flow rate of ??? cubic metres per second, through a roof stack identified as source WEP-1, having an exit diameter of ??? metres, extending ??? metres above grade;

- one (1) baghouse dust collector serving the wood cutting operations, having a maximum volumetric flow rate of ??? cubic metres per second, equipped with ??? square metres of terylene filter material and an automatic bag shaker cleaning mechanism, discharging to the atmosphere through a stack identified as source B-1, having an exit diameter of ??? metres and extending ??? metres above grade;

- one (1) cyclone-type dust collector identified as CYC1 used to control emissions from the main cutting saw located in the Sawmill, discharging to the atmosphere at a maximum volumetric flow rate of ??? cubic metres per second, through a stack having an exit diameter of ??? metres, extending ??? metres above the roof and ??? metres above grade;

Wet Scrubbers

- one (1) scrubber serving a cadmium plating operation (Planting Line No.2), employing water as a scrubbing medium at a recycle flow rate of ??? litres per minute, discharging to the atmosphere at a maximum volumetric rate of ??? cubic metres per second, through a roof stack identified as SCRUB-1, having an exit diameter of ??? metres extending ??? metres above the roof and ??? metres above grade;

Spray Booth

Paint Spray Booth

- one (1) paint spray booth for the application of solvent based and/or water based coatings at a maximum rate of ??? litres per hour, equipped with one (1) natural gas-fired air make up unit and/or oven having a maximum thermal input of ??? kilojoules per hour and ??? square metres of dry type paint arrestor filters, discharging to the atmosphere at a maximum volumetric flow rate of ??? cubic metres per second, through a roof stack identified as source Booth-1, having an exit diameter of ??? metres, extending ??? metres above the roof and ??? metres above grade;

Paint Spray Booth (operating less than 10 hours)

- one (1) paint spray booth operating less than 10 hours per week for the application of solvent based and/or water based coatings at a maximum rate of ??? litres per hour, equipped with one (1) natural gas-fired air make up unit having a maximum thermal input of ??? kilojoules per hour and ??? square metres of dry type paint arrestor filters, discharging to the atmosphere at a maximum volumetric flow rate of ??? cubic metres per second, through a roof stack identified as source PB-2, having an exit diameter of ??? metres, extending ??? metres above the roof and ??? metres above grade;

Hot Asphalt Mixing Plants

One (1) permanent batch-type or drum-mix hot mix asphalt plant, having a maximum production rate of (xxx) tonnes per hour, consisting of the following sources of emission:

- one (1) dryer/mixer, equipped with one (1) (natural gas, propane, diesel fuel, etc.) fired burner, having a maximum heat input of ??? kilojoules per hour, with particulate emissions controlled by one (1) (baghouse dust collector system, or scrubber, etc) having ??? square metres of ??? filter bags, a filtering velocity of ??? centimetres per second and a ??? cleaning mechanism, discharging to the atmosphere at a volumetric flow rate of ??? actual cubic metres per second at an approximate temperature of ??? degrees Celsius, through a stack, having an exit diameter of ??? metres, extending ??? metres above grade;

- four (4) liquid asphalt cement storage tanks, equipped with one (1) natural gas fired hot oil heater, having a maximum heat input of ??? kilojoules per hour, discharging to the atmosphere through a stack, having an exit diameter of ??? metres, extending ??? metres above grade;

- two (2) storage silos, used for temporary storage of hot mix asphalt, discharging to the atmosphere by natural draft approximately ??? metres above grade;

- material handling equipment such as pumps, bins, and conveyors;

Thermal Oxidizer

- one (1) regenerative thermal oxidizer, designated as source RTO-1, to control volatile organic compound emissions from five (5) coating lines (C-1 to C-5) and three (3) lithographic printing presses (CL-6 to CL-8) in the Lithographic and Coating Department, with a minimum destruction efficiency of 98.5% of volatile organic compounds and a maximum process gas handling capacity of ??? cubic metres per second, equipped with one (1) continuous temperature monitor for the combustion chamber, one (1) temperature recorder and two (2) natural gas-fired burners having a maximum combined heat input of ??? gigajoules per hour, discharging to the atmosphere at a maximum volumetric flow rate of ??? cubic metres per second at a temperature range of ??? to ??? degrees Celsius, through a stack, having an exit diameter of ??? metres, extending ??? metres above the roof and ??? metres above grade;

If further assistance is required please contact the Best Practices Committee.