Addendum to Enbridge's 2013 Corporate Social Responsibility Report (with a focus on 2013 data)

Air Emissions, Effluents and Waste Performance Data Sheet

This performance data sheet relates to the following Global Reporting Initiative (GRI G3.1) Environmental Performance Indicators:

- EN19 – Emissions of ozone-depleting substances by weight
- EN20 – NO, SO and other significant air emissions by type and weight
- EN21 – Total water discharge by quality and destination
- EN22 – Total weight of waste by type and disposal method

Ozone Depleting Substances

Management Approach and Background

While we continue to use halocarbon-containing equipment (in some vehicles, drinking water fountains, refrigeration and air conditioning systems), we no longer have any infrastructure containing a significant quantity of ozone depleting substances. We had no reportable releases in 2013.

Our Liquids Pipelines business unit (LP) has an Environmental Management Plan for ozone-depleting substances in place for its Canadian operations. The plan includes phase-out of halon-containing fire extinguishing equipment and a commitment to find alternatives to minimize LP's use of other ozone-depleting substances. LP reviews the plan every three years and updates it as necessary to reflect changes in LP's inventory and changes in applicable legislation.

Emissions

For reports on Enbridge's direct and indirect GHG emissions and efforts to reduce direct GHG emissions, please see the Energy and Climate Change performance data sheet on www.csr.enbridge.com.

Context

The major air emissions released by Enbridge facilities include methane, carbon monoxide, nitrogen oxides (NOx) and volatile organic compounds (VOCs). The largest source of VOC emissions from our LP operations is from tank storage. Other contaminants released by Enbridge facilities, but in much smaller quantities, include sulphur dioxide (SO_2), hydrogen sulphide and particulate matter and hazardous air pollutants such as hexane.

Management Approach and Background

We mitigate air emissions from our operations to ensure they meet or exceed the standards set by regulators.

Reporting Criteria Air Contaminants

Criteria air contaminants (CAC) are a group of common air pollutants released from sources, including incineration, industrial production, fuel combustion and transportation vehicles. We have established programs that define our roles, responsibilities and timelines for reporting our CAC emissions to various government agencies in Canada and the U.S.

In Canada, LP and Enbridge Gas Distribution (EGD) track and report annual CAC emissions under the National Pollutant Release Inventory. The air contaminants covered under the regulation include NO_x, SO_2, VOCs, carbon monoxide and particulate matter. In the U.S., both LP and our Gas Transportation business unit (GT) monitor and report on CAC emissions in compliance with state and federal regulations.

Liquids Pipelines

We, along with other industry partners, established an ambient air monitoring network to monitor the air quality in and around our tank farm at Hardisty, Alberta. The stations collect and monitor the air quality both continuously and on the National Air Pollution Surveillance schedule. In addition to the air monitoring stations, we conduct semi-annual head space air sampling on each storage tank to ensure emission-control devices are functioning.

We are also a member of the Strathcona Industrial Association (SIA), which owns and operates an air monitoring network in the City of Edmonton and Strathcona County. The stations continuously monitor the air quality around our Edmonton Terminal.

In the U.S., we track and report to the Environmental Protection Agency's Toxic Release Inventory and to state regulators on VOC emissions for our LP terminals.

LP has a rigorous maintenance program in place that includes regular inspections of emission control devices and repair or replacement of them to ensure they meet regulatory criteria.

Gas Transportation

GT is continually looking for opportunities to upgrade its gas facilities and pipelines in ways that contribute to its operational, environmental and safety goals. One example is acid gas injection, which uses advanced technology to compress acid gas, primarily hydrogen sulphide and carbon dioxide, and inject the gases into suitable underground reservoirs, thereby avoiding emissions to the atmosphere.

In 2013, GT commissioned a new acid gas injection well, in addition to the existing operational injection well, near the Aker Treating Plant. For the 2013 operating year, the facility injected 43,698.52 tons of carbon dioxide (CO_2) and 282.18 tons of sulphur dioxide (SO_2) which otherwise would have been emitted from a traditional gas treating facility.

The following criteria pollutant emissions were reported by the GT facilities that are required to provide emission inventories:

Gas Transportation (tonnes)	2013	2012	2011
CO	1,783	1,926	1,816
NO_X	2,766	2,795	3,094
VOCs	1,177	1,647	1,405
SO_2	412	540	311

Enbridge Gas Distribution

In Canada, EGD reports annual criteria air contaminant emissions under the National Pollutant Release Inventory (NPRI). The criteria air contaminants covered under the regulation include NO_x, SO_2, VOCs, carbon monoxide and particulate matter. Emissions are calculated using emission factors or site/equipment specific data. In addition to the air contaminants reported below, in 2013 one underground storage compressor station reported emissions of 0.067 tonnes of particulate matter (PM).

Enbridge Gas Distribution (tonnes)	2013	2012	2011
CO	72	90	152
NO_2	66	110	323
VOCs	27	16	22

For More Information

Please see Asset Integrity and Reliability, Spills, Leaks and Releases and Energy and Climate Change performance data sheets on www.csr.enbridge.com.

Effluents

Context

We do not use water to transport liquid hydrocarbons or natural gas. We occasionally acquire and discharge water to hydrostatically test the integrity of new or existing pipelines and tanks.

Management Approach and Background

Hydrostatic testing involves filling a section of the new pipeline with water—generally withdrawn locally from the environment or from municipal sources when possible—and pressuring that section to check and confirm its integrity. In doing so, we follow company policy and regulatory standards, which include testing the water before releasing it back into the same watershed it came from or to a sanitary sewer when possible. Since existing pipeline sections/tanks have transported/held liquid petroleum or natural gas, we analyze and treat this test water, as needed, before returning it to the environment. Water returned to its source is required to meet discharge criteria established by local regulatory agencies.

All of GT's business processes that use water are closed loop systems, resulting in minimal water loss. At this time, GT does not track its total water use. GT also generates "produced water" from its processing operations. This water is disposed of according to local and federal requirements by injection into disposal wells.

For More Information

Please see the Water Use and Quality performance data sheet on www.csr.enbridge.com.

Waste

Context

The bulk of our waste consists of non-hazardous wastes such as paper, scrap metals, packaging materials and construction-related materials.

We make every effort to reduce and minimize our waste volumes, regardless of hazard classification, through measurement and management programs at our various facilities. We also try to find beneficial ways to reuse waste by-products.

The development of waste management tracking and training programs helps employees not only meet regulations, but more effectively recover waste.

Management Approach and Background

The following are some examples of our waste management and minimization practices:

- LP's operations in the U.S. provides employees across all of its operating areas site-specific guidance to help ensure sound waste management handling and disposal.
- LP's Edmonton Facilities Operations team has:
    - Implemented a garbage-bag reduction program in all downtown Edmonton buildings, and to lessen the number of garbage bags thrown away each day by the cleaners, we have asked them to dump the garbage instead and only replace the bags if there is wet garbage
    - Implemented a blue-bag recycling program in the Enbridge Place and Enbridge Tower buildings
    - Switched out standard products offered for kitchen and cleaning (e.g., dish soap, cloths, wipes) with only green alternatives and we are expanding this into other areas such as pens, folders, etc. where possible.)
    - Implemented a TeraCycle program—recycling pens to be up cycled into products for resale
    - Begun providing dishware and flatware for all newly renovated floors to discourage use of disposable products such as paper cups and plates, plastic cutlery, etc.
- GT recycles used lube oil from its compressor engines, spent activated carbon catalyst used in gas treatment, and spent catalytic converter catalyst used to control compressor emissions.

- EGD:
    - Reports liquid and solid hazardous waste and liquid industrial non-hazardous waste to the Ontario Ministry of the Environment's Hazardous Waste Information Network. These registerable wastes are generated through operation of EGD's facilities, as well as through its field operations.
    - Waste diversion rate for 2013 was 55.3 per cent. In addition to the recycling and organic programs, e-waste from EGD's IT department, tires and wood skids are also diverted from landfill. A total of 552,908 kg of recycling materials were diverted. A waste diversion program was created to increase the capture of our present programs, which included new signage, waste bins, presentations to employees to raise awareness, waste fact posters and plans on greening our events and Lunch and Learns. EGD's Facilities department also worked closely with the cleaning staff to review expectations.
    - Recycled just over 9,300 kilograms of batteries in 2013, all of which were sorted, processed and recycled, thereby diverting this waste from landfills.
    - Program to recycle pens, permanent markers, highlighters and whiteboard markers was initially implemented in the head office in 2012, diverting 4 kilograms of writing instruments from landfill. This program was rolled out to all EGD offices in 2013.

For More Information

Please see the Spills, Leaks and Releases performance data sheet on www.csr.enbridge.com.