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Revision to the list of 25 chemicals tracked by the enhanced reporting and disclosure program proposed for Toronto.

Toronto Public Health proposed 25 substances for environmental reporting and disclosure in Toronto. Details are presented in the report *Strategy to Enhance Access to Environmental Information in Toronto*, available at: http://www.toronto.ca/health/hphe/pdf/boh_july2007_access_to_environmental_information.pdf.

Two approaches were used to identify substances of priority concern for enhanced environmental reporting and disclosure. These approaches are outlined in the companion technical document *Process to Identify Priority Substance of Health Concern for Enhanced Environmental Reporting* available at: http://www.toronto.ca/health/hphe/enviro_info.htm.

These approaches were:

- Prioritizing estimated total emissions of specific substances using a health-based ranking scheme; and,
- Identifying chemicals substances in Toronto's air that exceed health-based benchmarks.

Upon review of additional information, the proposed list of chemicals was revised:

- Total volatile organic compounds (VOCs) have been added to the list.
- Toluene and chloromethane have been removed from the list.
- Total chromium has been replaced by hexavalent chromium and non-hexavalent chromium.

In 2004, Toronto Public Health reported that exposure to five common smog pollutants contributed to about 1,700 premature deaths and 6,000 hospitalizations of Toronto residents each year. VOCs react with other pollutant to create ozone, a major contributor to smog. Toluene is one of these VOCs. Toluene was included in the original list of priority chemicals because toluene is emitted in very high quantities in Toronto. However, toluene is often used as a less-toxic substitute to chlorinate solvents as a pollution reduction strategy. Thus, in order to allow businesses flexibility in their pollution prevention strategies, toluene was replaced by VOCs since this parameter is better to assess the smog-producing chemicals. Tools are available to businesses to report the use and release of total VOCs.

Chloromethane was removed from the list because up-to-date toxicological information became available to indicate that it is not present in Toronto's air at levels that are a risk to public health. Chromium can be used and emitted in multiple forms. Hexavalent chromium is much more toxic than other forms of chromium and is the primarily form emitted to air. Reporting of hexavalent

chromium separate from the other forms of chromium will enable the tracking of the different forms of chromium and will stimulate pollution prevention activities in the areas that will afford the greatest risk reduction for Toronto residents. Thus, total chromium has been replaced by hexavalent chromium compounds and non-hexavalent chromium compounds. These two forms of chromium have different reporting thresholds according to their difference in toxicity. This makes reporting of chromium consistent with NPRI.

The program would track the following 25 chemicals of greatest health concern in Toronto (changes are bolded):

| | |
|----------------------------------|---|
| Acetaldehyde | Formaldehyde |
| Acrolein | Lead |
| Benzene | Particulate matter 2.5 (PM _{2.5}) |
| 1,3-Butadiene | Manganese |
| Cadmium | Mercury |
| Carbon tetrachloride | Nickel |
| Chloroform | Nitrogen Oxides (NO _x) |
| Chromium (hexavalent) | Polycyclic aromatic hydrocarbons (PAHs) |
| Chromium (non-hexavalent) | Tetrachloroethylene (perchloroethylene) |
| 1,4-Dichlorobenzene | Trichloroethylene |
| 1,2-Dichloroethane | Vinyl chloride |
| Dichloromethane | Volatile organic compounds (VOCs) |
| Ethylene dibromide | |

For further details on the proposed environmental reporting and disclosure program and for a definition of total VOCs, please refer to “*Environmental Reporting and Disclosure. Consultation Document on a Proposed Program for Toronto*. January 2008.

http://www.toronto.ca/health/hphe/pdf/enviro_disclosure.pdf.