The identification of risk assessment priorities

Fact sheet series: Topics in risk assessment of substances under the *Canadian Environmental Protection Act, 1999* (CEPA 1999)

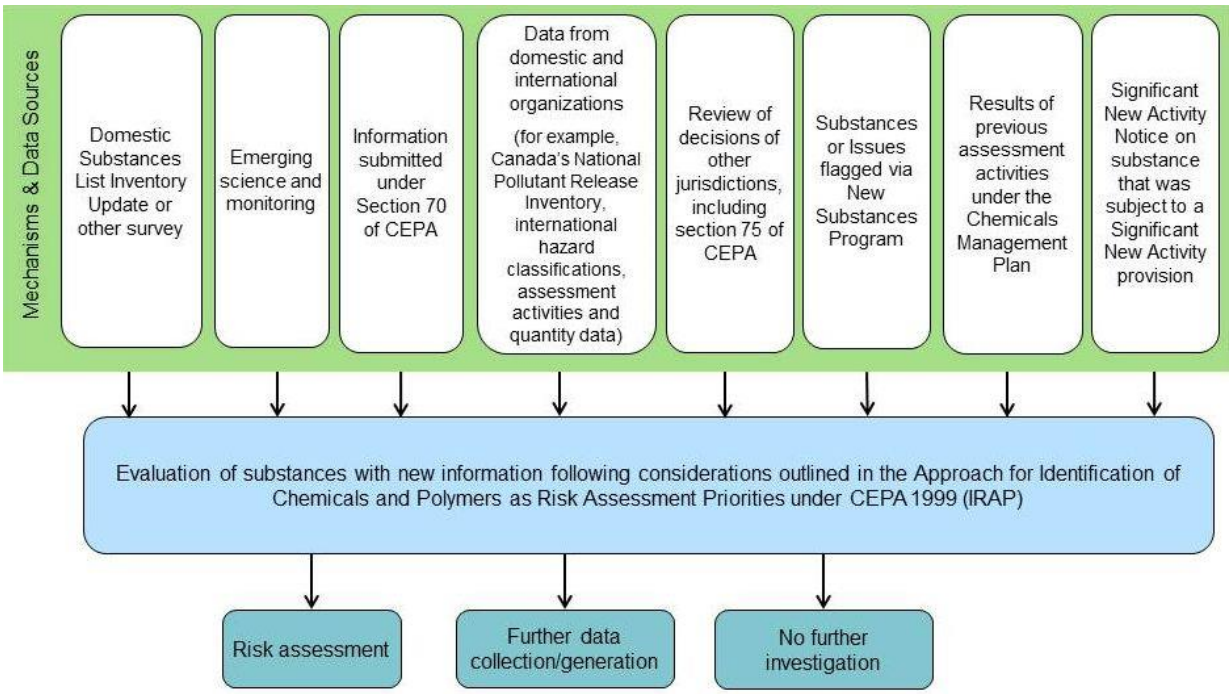
Since 2006, priorities for risk assessment of chemicals and other substances under CEPA 1999 have largely been based on the results of categorization of the Domestic Substances List (DSL) and New Substances Notifications. However, our knowledge of chemicals continues to evolve. Therefore, it is important to consider new information to identify substances that may have the potential to cause harm to the environment or human health. These identified substances may then become priorities for assessment. In 2014, an approach was published outlining the systematic collection, consolidation and analysis of new information, in order to determine appropriate action, including risk assessment, for substances with new information. The approach describes the ongoing prioritization activity that contributes to the identification of risk assessment priorities (IRAP) for chemicals and polymers.

The IRAP process

There are 3 steps involved in the identification of risk assessment priorities: **acquisition** of information relevant to the potential health and ecological risks of substances, **evaluation** of the information available for each substance and identification of appropriate **action** for each substance. The process is different from categorization, where each substance on the DSL was categorized based on prescribed criteria. With the IRAP process,

new information is evaluated to determine appropriate action for implicated substances. The acquisition of new information occurs on an ongoing basis, while the other 2 steps are generally performed at regular intervals. The steps in the IRAP approach are outlined in Figure 1.

Figure 1: Approach and mechanisms to identify risk assessment priorities



Acquisition refers to the collection and compilation of data for further consideration in the evaluation phase. The information sources collected and considered in the IRAP process are extensive and are illustrated in Figure 1. They include, for example, international hazard classifications or risk assessments, toxicity data submitted under section 70 of CEPA 1999, information from the New Substances Program and other relevant Government of Canada program areas, research and monitoring data, and quantities of substances in commerce domestically and internationally. The IRAP approach is not

prescriptive in the data sources used, and data sources considered in each review cycle will change as new science or data becomes available.

Evaluation refers to the periodic review of the data and subsequent analysis that is performed by scientists at Health Canada (HC) and Environment and Climate Change Canada (ECCC). The review identifies substances with new available data. A series of factors are then considered and weighed, and judgments are made on the relative importance of different data (for example, reliability of the information, number of information sources, potential concern for hazard and exposure). Evaluation can be a complex process because substances will have different types of information available and prior activities on a substance must be taken into account (for example, past risk assessments). Decisions are guided by a set of principles and considerations as outlined in the IRAP Approach.

Action refers to next steps for a given substance based on the analysis of the data. A substance may be identified for risk assessment, or may be subject to further information gathering/data generation where additional information would be beneficial to determining the appropriate next step, if any. HC or ECCC program areas or stakeholders may be engaged to collect or generate additional information (including research, monitoring, and/or surveillance). Although the most likely actions are outlined above, additional actions may be considered when warranted, including risk management action.

Generally, for a substance to be identified as a priority for risk assessment, the process would identify information for a potential risk – that is, the presence of both a hazard and a significant potential for exposure in Canada. If only hazard information is

identified (or if only international exposure data is available), the identified action would typically be to confirm, through further information gathering, whether or not there are activities with this substance in Canada that could lead to exposure of the substance to humans or to the environment. If results of this information gathering indicate that there is a significant potential for exposure, the substance could then be identified for risk assessment in a subsequent IRAP cycle.

Priorities for risk assessment

Results from previous cycles are available. As a result of the IRAP process, substances have been added to the current risk assessment work plan.