



Canadian Federation of University Women  
ONTARIO COUNCIL



Comments on:

Creating Ontario's Toxics Reduction Strategy  
EBR Registry Number: 010-4374

to the  
Strategic Policy Branch  
Ontario Ministry of the Environment

October 10<sup>th</sup>, 2008

By the

Canadian Federation of University Women  
ONTARIO COUNCIL

Submitted by  
Myra Willis  
President, Ontario Council  
Canadian Federation of University Women  
[cfuwontario@yahoo.com](mailto:cfuwontario@yahoo.com)

Researched and written by Dr. Charlotte Rigby and Olga Lee, CFUW Ottawa  
With the assistance of the members of the CFUW Ottawa's Environmental Toxins  
and Health Study Group

This fax contains 23 pages including this cover

Greg Mouchian  
Senior Policy Advisor  
Ministry of the Environment  
Integrated Environmental Planning Division  
Strategic Policy Branch  
135 St. Clair Avenue West, Floor 11  
Toronto, Ontario, M4V 1P5  
Phone: (416) 314-5134  
Fax: (416) 314-2976

Re: *Creating Ontario's Toxics Reduction Strategy*  
EBR Registry Number: 010-4374

The Ontario Council of the Canadian Federation of University Women (CFUW) welcomes the opportunity to comment on the discussion paper *Creating Ontario's Toxics Reduction Strategy*.

Environmental policies and practices are a major area of study and advocacy for our members.

As an organization of concerned educated women, we encourage government actions to reduce the severe environmental degradation to which our world is being subjected.

CFUW Ontario Council is composed of 58 clubs comprised of graduates living in urban and rural areas across Ontario. We are non-partisan, non-sectarian, and we are member funded. We are part of the Canadian Federation of University Women and have links to the International Federation of University Women.

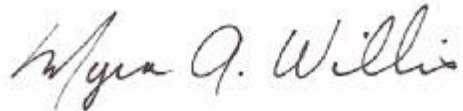
**The authors of this paper:**

Olga Lee is a retired psychiatric nurse with a B.Sc. in Nursing from the University of Toronto. Thanks to Olga's initiative and concern, CFUW Ottawa's Environmental Toxins and Health Study Group was started in July 2006, and currently provides workshops and other educational materials concerning toxins.

Dr. Charlotte Rigby is a retired government microbiologist with a Ph.D. from the University of Ottawa in Medical microbiology and immunology, having done post doctoral research and spent much of her career in veterinary microbiology. Dr. Rigby retired as the Director of the Ottawa Laboratory of the Canadian Food Inspection Agency.

CFUW Ottawa's Environmental Toxins and Health Study Group - The other members<sup>1</sup> in the group have varying academic backgrounds including nursing, education, and biomedical, environmental and agriculture sciences, bringing many years' experience in the academic, government, agricultural and business sectors.

Yours truly,



Myra Willis  
President  
CFUW Ontario Council

---

<sup>1</sup> The CFUW Ottawa Environmental Toxins and Health Study Group:  
Anne Bellamy, B.A., University of Ottawa  
Dr. Kringen Henein, B.A., BSc, Ph.D., Carleton University  
Glenda Levesque, B.Sc., Carleton University, MBA York University  
Peggy McGillivray, B.A., University of Toronto  
Janet Parry, Dual Diploma Occupational Therapy, Oxford University  
Karen Switzer-Howse, B.Sc., University of Guelph  
Sheila Woodman B.A., Carleton University , Spec. Economics, University of  
Ottawa, with  
Dr. Charlotte Rigby, B. Sc., M.Sc., Manitoba, Ph.D. University of Ottawa  
Olga Lee, Group Chair, B.Sc.N., University of Toronto

## Table of Contents

<b><i>Introductory Remarks</i></b> .....	<b>4</b>
<b><i>General Observations - Summary</i></b> .....	<b>5</b>
<b><i>Discussion Questions</i></b> .....	<b>7</b>
<b><i>Section 5. Legislation</i></b> .....	<b>7</b>
<b><i>5.2.1 Materials Accounting</i></b> .....	<b>7</b>
<b><i>5.2.2 Toxics Reduction Plans</i></b> .....	<b>8</b>
<b><i>5.2.3. Reporting to the Ministry or a Designated Body</i></b> .....	<b>8</b>
<b><i>5.2.4 Public Disclosure</i></b> .....	<b>9</b>
<b><i>5.3 Scope of the Regulated Community</i></b> .....	<b>9</b>
<b><i>5.3.3 Proposed Phasing of Toxics</i></b> .....	<b>10</b>
<b><i>5.3.5. Sectors</i></b> .....	<b>10</b>
<b><i>5.4 New Authorities to Address Toxics in Consumer Products</i></b> .....	<b>11</b>
<b><i>5.5 Governance Model</i></b> .....	<b>12</b>
<b><i>5.5.2 Parties External to the Ministry</i></b> .....	<b>12</b>
<b><i>Section 6. Building Capacity and Support</i></b> .....	<b>13</b>
<b><i>6.1 Technical Assistance</i></b> .....	<b>13</b>
<b><i>6.2 Partnerships and Linkages</i></b> .....	<b>14</b>
<b><i>6.3 Economic and Other Incentives</i></b> .....	<b>14</b>
<b><i>Section 7. Informing Ontarians</i></b> .....	<b>15</b>
<b><i>Section 8. Additional Comments</i></b> .....	<b>17</b>
<b><i>Resources Consulted</i></b> .....	<b>18</b>
<b><i>Acronyms</i></b> .....	<b>19</b>
<b><u><i>APPENDIX A - Resolutions</i></u></b> .....	<b>20</b>
<b><u><i>APPENDIX B - Club Locations</i></u></b> .....	<b>23</b>

## Introductory Remarks

The objective of the Toxics Reduction Strategy (TRS) is “To help protect the health and environment of Ontarians by reducing the use and emission of toxics in air, water and consumer products.” The Ontario Council of the Canadian Federation of University Women (CFUW) welcomes this extremely important and timely initiative.

Members of the public are beginning to understand the serious threat that environmental toxics pose to our health and environment. In recent years, toxin-reduction (TR) measures such as the reduction of chlorine in pulp and paper mill effluents, and the removal of lead from gasoline have made dramatic

improvements in our environment. There is every reason to expect that continued efforts, while not easy, will yield equally dramatic benefits to health.

The TRS Discussion paper presents Ontario's commitment to:

- Ø Introduce new toxics reduction legislation that would reduce pollution and inform and protect Ontarians from toxic chemicals in the air, water and consumer products;
- Ø Work with Cancer Care Ontario and the Ontario Medical Association to identify, target and reduce the number of cancer-causing agents released into the environment; and
- Ø Provide programs and technical assistance to replace and reduce toxic chemicals with other less polluting substances and introduce innovative technologies.

It presents Questions for Discussion under three main elements:

- I. Legislation;
- II. Building Capacity and Support; and
- III. Informing Ontarians

We first summarize some general observations, followed by responses to selected Discussion Questions, and a listing of some resources we have consulted. Comments made by the Toxics Reduction Expert Panel convened by the ministry were especially helpful.

## **General Observations - Summary**

The **Ontario Council of the CFUW commends:**

- This commitment to reduce toxins at the beginning of the product cycle before they create problems, and at each successive stage including waste management.
- recognition that consumers and stakeholders can have important input in policy planning;
- the commitment to public disclosure; and
- the spirit of cooperation, collaboration and consultation.

**CFUW Ontario Council suggests:**

The TRS proposes new requirements which include: Materials Accounting (MA); Toxics Reduction Plans (TRPs); reporting; and public disclosure. TRPs and required reports will be mandatory, but **we are concerned that at the present time implementation of the TRPs will be voluntary.**

Success of the TRS will depend on the **early establishment of clear, measurable targets, specific time lines and effective monitoring procedures.** TRS goals should be specific, measurable, attainable, results-oriented and time-specific; and enforcement measures should be specific and appropriate.

We note the TRS focus on carcinogens, and **we urge the inclusion of two other important groups of toxic chemicals:**

- **endocrine disrupting chemicals (EDCs) and**
- **reproductive toxins.**

EDCs affect the action of hormones that control growth and development. They cause adverse effects at extremely low levels and may also be carcinogenic. Chemicals in personal care and household products, such as phthalates, parabens, and Bisphenol A are known endocrine disruptors. Nonylphenols in cleaning products and pesticides are of special concern because exposure in utero may affect future generations. Many reproductive toxins (such as toluene, lead, and benzene) that affect the developing fetus are also known carcinogens.

The **TRS goals should be revised to read:**

"to reduce toxics, including carcinogens, endocrine disruptors and reproductive toxins that are associated with risks to human health and the environment in Ontario".

**We are unclear about the Ministry's intentions with respect to regulations versus voluntary guidelines.** Government's responsibility to protect the health of its citizens requires it to ensure that measures sufficient for this purpose are instituted and enforced. To allow some parties to adhere to them and others not to do so with impunity would defeat the purpose of the TRS. **A rule that says it is mandatory to write a plan but not require its implementation is an example of this defect.**

**We emphasize the need for collaboration and partnerships at all levels of government** – international, federal, provincial/territorial and municipal. The TRS specifically includes roles for Cancer Care Ontario, as Ontario's cancer system agency, and the Ontario Medical Association. Other agencies in the health care and environmental sectors also need to play prominent roles. Non-governmental organizations, the not-for profit sector, and the general public all have important roles to play, and the TRS must include strategies to inform and involve all these sectors.

**We also emphasize the need for collaboration and partnerships with others. Small and Medium-sized Enterprises (SMEs)** are important in the Canadian economy. The TRS should address their role and provide incentives for this sector as well as large facilities. We also advocate the early expansion of the TRS to **include** other sectors of the economy, including **Agriculture, Forestry, and Waste Management**.

We **welcome the proposal to train and certify Toxics Reduction planners**. These specialists can make an important contribution in developing awareness, providing training and setting standards for industry.

Public opinion is a powerful resource. In Ontario, public opinion is increasingly supportive of measures to prevent pollution and promote healthy environments. **The TRS must devote significant efforts and resources to informing and educating the public** about ways that they can contribute to an environment that is healthy for us, our children, and the land, air and water on which we all depend.

## **Discussion Questions**

### **Note:**

In our responses to the Discussion Questions (below), we have not commented on Questions numbers 1, 4, 31, 35, 36, or 37.

## **Section 5. Legislation**

### **5.2.1 Materials Accounting**

#### **2 How would Materials Accounting information assist in your understanding of how toxics are used in your community?**

Materials Accounting (MA) is a comprehensive quantitative method for tracking designated toxics. It includes data on quantities purchased, stored, used and exiting as components of products or byproducts, process waste, or emissions into the environment.

MA reports must be available to the public in a timely fashion, and in a form easily understood by the layperson. They should enable consumers to identify areas of concern and/or improvement, and help to increase awareness of our dependence on these toxics and their integration into our lifestyle. They should enhance public confidence in (and consumers preference for), producers whose MA reports demonstrate reduced use and emissions of toxics. Most consumers have little information about toxics in their communities. With ready access to MA information, they could make informed decisions about precautions needed.

**3 Do you have comments about Materials Accounting and how it should work?**

The requirement should apply to all enterprises unless there is a special reason for exclusion. Large facilities which currently report to the National Pollution Release Inventory (NPRI) and conduct Quality Assurance and Workplace Safety programs already maintain inventories of toxics; MA should not prove to be an undue administrative burden for them. However, the burden on smaller, localized facilities could be untenable. We need an approach that, as proposed, identifies large facilities, and also includes SMEs that could have a high impact on municipal and rural neighbourhoods.

**5.2.2 Toxics Reduction Plans**

**5. What is an appropriate update schedule for Toxics Reduction Plans – annually, every two years, every five years, other?**

Every two years. The preparation of Toxics Reduction Plans (TRPs) must not put an excessive administrative burden on businesses. However, the provision of timely information is important to track performance and progress towards goals, and to identify trends.

**6. Do you have a comment on the contents of the Toxics Reduction Plans summaries?**

TRP goals should be quantitative (expressed as % change, or tonnage reduced over a specified time period). TRP summaries would report changes over previous reporting periods, and include new methods and information on incurred costs and benefits such as improved sales figures, efficiencies gained, substitutions made, or Greenhouse Gas (GHG) reductions. Items which contain confidential business information (CBI) should be clearly identified, with justification for their protection.

**5.2.3. Reporting to the Ministry or a Designated Body**

**7. Do you have any comments on the proposed reporting requirement?**

The designated body for reporting should be a special agency reporting to the Minister of the Environment, or an audit office within the Ministry.

**8. Do you have any comments on the frequency of reporting-annual, every two years, every five years, unless significant changes to plans are made, other?**

Reporting should be biannual. Cumulative and annualized figures should be provided, and changes in use patterns, amounts, and/or outputs should be highlighted.

**9. Are these the right elements on which to report?**

While the focus of the TRS is on reduction and prevention (rather than control) of pollution, MA data and TRP reports from large facilities should include release data and emissions information supplied to the NPRI.

**10 Are the proposed components of the report useful for determining where and how facilities in your community are working to reduce the use and release of toxic substances?**

Release data that is required under NPRI should be incorporated into the TRP and made public. TRPs must identify the methods used for all determinations, including release and emissions data, so that valid comparisons can be made.

NPRI applies to enterprises with more than 10 employees who release more than 10 tonnes of a toxic chemical. Yet many consumers live in neighbourhoods or rural areas where SMEs that do not report to the NPRI and therefore will not be included in the TRS, may be releasing significant amounts of toxic chemicals.

**5.2.4 Public Disclosure**

**11 Do you have suggestions regarding the public disclosure of Toxics Reduction Plan summaries, use data from MA and reports?**

The public has the right to know this information. Regulations should include legal authorities to publish it, in the same way that Workplace Hazardous Materials Information System (WHMIS) information is publicly available.

**12 How will having access to this information better prepare you to make informed choices about toxics?**

Information provided by producers that is reliable, timely, and subject to audit will enable advocacy groups to base their positions on accurate information. It will increase awareness of the types and effects of toxics, and enable consumers to identify “green” companies and make informed choices about products.

Publicity is a powerful incentive for companies to reduce their use of toxic chemicals. Facilities that are required to develop TRPs will be forced to analyze their use and handling of toxics, and the impact of this information on their community and customers.

**13 Do you have any suggestions on how the Province should protect confidential business information?**

We agree that protection of CBI is important, but the protection of the public must be paramount. Regulators must have access to CBI in order to operate ethically and effectively, follow appropriate procedures protecting CBI, and justify any extraordinary measures.

**5.3 Scope of the Regulated Community**

### **5.3.3 Proposed Phasing of Toxics**

#### **14 Do you have any comments on the proposed list of Toxics?**

We note the assignment of 135 non-NPRI chemicals, including many known reproductive toxins, EDCs, and carcinogens to Schedule 4, for which no legislative requirements are planned at this time. Schedule 1 should be expanded to include EDCs and reproductive toxins, with necessary changes made throughout the text of the TRS.

Information on NPRI-listed chemicals is based on emissions data provided by large facilities. As pointed out by the Expert Panel, the intent of Phase I is immediate regulation of a small number of reporting facilities, to enable the development of effective compliance regimes before the rollout of Phase II, with its larger list. Yet, some Phase II chemicals, like volatile organic chemicals (VOCs) and “small” particulate matter (PM2.5) that are persistent and/or widespread in air emissions are known or potential carcinogens. These are of serious concern. We agree with the Expert Panel that these hazardous toxics should replace some Phase I chemicals (e.g. copper, aluminum, vanadium, or zinc and their compounds) which, although present in large volumes, are less toxic.

#### **15 Do you have any comments on the Province’s proposal to organize toxics into schedules and to tailor requirements for each schedule?**

The legislation must include the ability to keep the list updated and current. Biomonitoring, exposure data and toxicity studies are needed to provide detailed information about toxics that need to be assessed. These findings should be regularly reviewed, and lists and tier status modified as necessary.

The Ministry must conduct timely stakeholder consultations and develop measures to ensure the early introduction and effective promotion of voluntary reductions.

#### **16 Do you have any comments on the proposed phase-in timetable?**

Implementation of Phase II should begin as soon as feasible. Coordination with federal government programs (the Domestic Substances List and Chemicals Management Plan Programs) to gather information and reporting on Phase III chemicals should begin immediately. Plans for Schedule 4 substances need review to select EDCs, reproductive toxins and other toxics that require early action.

#### **17 Are there timing considerations that the government should consider in developing the phases?**

We agree with the Expert Panel that Phase II should be implemented with a minimum of delay.

### **5.3.5. Sectors**

**18 Are the NPRI thresholds appropriate for Ontario?**

NPRI thresholds apply to enterprises with more than 10 employees who use or produce more than 10 tonnes of a listed Toxic per year. The TRS targets these facilities. NPRI thresholds do not include SMEs, such as dry cleaners, even though they are an important part of the Ontario economy. There must be a plan developed to address SMEs. There is also a risk of leakage or explosions where large amounts of toxic chemicals are kept in commercial/residential areas.

**19 What are workable and effective approaches to address lower threshold emitters?**

Education, outreach, expert assistance and incentives are key components. The Ontario Environmental Leadership Program provides valuable incentives, and should be enhanced. Another approach would be a plan similar to Environment Canada's Enviroclub in Quebec, which provides coaching and training to SMEs.

The Government of Ontario should take responsibility for researching these questions and presenting proposals within a defined brief time frame.

**20 Are there additional sectors that the Province should consider for inclusion?**

Waste Management including incinerators; Agriculture including production and use of pesticides and fertilizers; Forestry; Pharmaceutical Manufacturing; Health Care.

**5.4 New Authorities to Address Toxics in Consumer Products**

**21 Do you support creating new authority for Ontario to ban or restrict toxics and consumer products containing toxics? Should this authority be limited to a designated list or be broad enough to include any toxic substance?**

A new authority should be adequately funded and broad enough to enter into cooperative agreements with other agencies and international bodies; to base its operations on the Precautionary Principle; to support training and certification activities; and to include the waste management and health care sectors. The *Hazardous Products Act* should be amended to include powers to demand full disclosure about potential toxics.

**22 Should the legislation include authority for the Province to take precautionary action when, with limited scientific evidence, it suspects that a toxic substance poses a serious risk of harm to human health or the environment?**

The legislation must include authority to take precautionary action, but the definitions and intent must be made precise, as in The *Canadian Environmental Protection Act 1999* (CEPA), which calls for full implementation of the Precautionary Principle. CEPA uses the phrases "lack of full scientific certainty",

and “where there are threats of serious or irreversible damage”. This standard language would be preferable to the ill-defined phrases “limited scientific evidence” and “serious risk of harm”.

The Canadian experience earlier this year with concerns about Bisphenol A is an instructive example of the Precautionary Principle in action. As soon as concerns about the effect of Bisphenol A in beverage and water bottles became public, retailers such as Mountain Equipment Coop and Wal-Mart took immediate precautionary action and removed product from their shelves, before any recalls were made. The toxicity of Bisphenol-A remains unproven; but the effective precautionary action that was taken met with wide public approval, and a resulting increase in consumer awareness.

An independent panel should evaluate the evidence to determine the probable risk of serious harm and appropriate precautionary action. It could require more safety test data, or a detailed review or more scientific information.

**23 What are workable and effective ways to ensure the public has useful information on toxics and consumer products?**

See our responses to questions 42, 43 and 44

***5.5 Governance Model***

***5.5.2 Parties External to the Ministry***

**24 What should be the division of responsibilities between the government and other parties? Why?**

Because pollutants and toxics do not respect municipal, provincial or national borders, all levels must work cooperatively to enact effective TR measures. Canada needs a cohesive national plan. National programs managed by Environment Canada under CEPA complement and support provincial, municipal and territorial initiatives. The authorities and responsibilities of each level of government should be clearly communicated to the public.

The TRS should support municipal by-laws which may be national precedent-setters. An example is the 1990 by-law passed by the municipality of Hudson, QC forbidding cosmetic pesticide use; many municipalities have now passed similar by-laws.

**25 What parties, such as a university, agency or centre of excellence, are most effective and efficient for particular functions and types of activities?**

University medical colleges and schools of environmental sciences, engineering and business administration are important contributors of research and expert advice. Statistics Canada, the Canadian Public Health Agency, and other federal government departments provide specialized expertise in areas subject to federal

regulation. Municipal organizations can sponsor special outreach community events. Non-governmental organizations including unions and public interest groups provide advocacy. All these parties build public awareness by convening special programs including lectureships, special events, lectures and symposia. Organizations within the medical community and particularly the cancer system, such as Cancer Care Ontario are prominent in this field. They should be joined by organizations focused on other syndromes, such as the reproductive anomalies, allergies and developmental disabilities that have been linked to exposure to environmental toxics. Environmental non-government and not-for-profit organizations have significant support, visibility and expertise, and should be major players in any initiative.

Centres of Excellence have a unique ability to coordinate specific areas of research, create consortia and leverage funds from a variety of stakeholders. An Ontario-based Centre of Excellence devoted to Environmental Toxics and Health should be created with both federal and provincial start-up funding. All these organizations should provide non-partisan research, reporting and evaluation of the scientific facts and perspectives.

**26 Do you have any comments on the proposal to establish a training and certification program for toxics reduction planners?**

It is important to have trained specialists to assist and advise facilities on their planning. Their special expertise could be used in enforcement as well.

TR planners could coordinate with specialists in Quality Assurance programs such as those administered by the Standards Council of Canada, and with Occupational Health and Safety Programs administered by Labour Canada, unions and provincial bodies. Together they could generate a larger profile and establish a culture of “best practices.” Labour Union involvement would raise visibility and increase participation and commitment.

**27 Would the services of a trained and certified toxics reduction planner be helpful to your operation? If not, why?**

A TR planner would be a valuable resource for consultation, advice and as a guide for advocacy activities.

## ***Section 6. Building Capacity and Support***

### ***6.1 Technical Assistance***

**28 What are the key opportunities regarding the implementation of toxics reduction?**

Opportunities to improve human health and that of the environment are key. Other opportunities include: to gain efficiencies, reduce waste emissions (including GHG), adopt greener, cheaper substitutions and processes, and improve public image and market position. Enhanced export competitive

positions, especially to European markets. Access to government assistance programs, and increased visibility and enhanced profile with consumers and retailers are also important.

**29 What are the key barriers regarding the implementation of toxics reductions?**

The current (projected) downturn in the Ontario economy and our commercial relationships with the USA and other countries will make it financially difficult to make needed new investments. The perception of added burdens and competition with “green” initiatives that are more visible and better-established, and resistance to the implementation of the Precautionary Principle, especially by industries producing EDC and other toxics for which scientific proof of toxicity is not conclusive are other important barriers.

**30 How can technical assistance best be targeted to reduce barriers?**

Focus on cost reductions and efficiencies. Build networks to exchange information and demonstrate “best practices.”

**6.2 Partnerships and Linkages**

**32 What is needed to ensure that innovative alternatives make it to market (suggest three to five items)**

Cost-effective measures; Meeting consumer demand for “greener” products; Adequate developmental funding; Regulatory approval.

**33 How should information on feasible alternatives be disseminated to maximize access to and use of this information?**

Websites and symposia, conferences and opportunities to network are needed. A provincial agency responsible for TR planning and audit could produce guidance information and documents.

The public recognition of companies that make their anti-pollution patents public, creating the “eco-patent commons” resource that is available to be shared by all.

**34 Are you aware of, or can you suggest, other potential partnerships or linkages that may be useful?**

Networking partnerships and interprovincial and international cooperative groups, could produce widely-distributed, coordinated information especially useful to companies that operate interprovincially or internationally.

**6.3 Economic and Other Incentives**

**38 What incentives would be the most effective and efficient at encouraging toxics reductions?**

Full transparency, i.e. publication of the TRP and other reports.  
Tax policies that encourage firms achieving reductions.

### **39 What other types of incentives could assist in encouraging toxics reductions?**

Development of an Environmental Bill of Rights, with public consultations, could mobilize public and political commitment, and provide opportunities for “green” firms and industries to raise their profiles.

## ***Section 7. Informing Ontarians***

### **40 What information would you like to know about toxics in your community?**

Why is this important?

Where can we find reliable information?

Who is producing, using and emitting toxins, and what are they doing about it?

Who is addressing the issue and making changes?

What are the problem Toxics in my community? What is being done about them?

What are my governments (federal, provincial, municipal) doing about it?

What can I do? What are my alternatives?

When can we expect to see reductions actually happening?

How does my municipality dispose of pathogens and toxins in sewage sludge.

Are these entering the food chain via fertilizers being spread on agricultural land?

Where are the areas of especially poor air quality (such as downwind from large facilities? or major traffic routes) that should be avoided?

What facilities in our community manufacture or use toxic chemicals, and their identity? Which ones are used/emitted?

Where are the contaminated sites and landfills in my area?

What is the emergency response plan for my area in the case of spills?

A user-friendly government website should provide much of this information by postal code.

### **41 What concerns do you have regarding existing reporting systems and how could we improve upon them?**

Case histories must be improved and include long-term and childhood exposure information. Information about early exposures may be important, such as recent reported links between exposure to pesticides and cancer in women who grew up in agricultural communities. Surveillance systems are incomplete, and the information needs to be improved. Federal overview is required to pool information from different jurisdictions.

Over 90% of funding for cancer research is still directed to treatment and follow-up. Research into prevention could have a greater long-term effect on the public good, and increased funding for research on TR methods is badly needed.

#### **42 What organizations could the Ministry work with to help inform Ontarians?**

Science reporters, columnists and authors can help make toxics reduction visible and attractive; publicize surveillance and exposure data; and highlight progress reported in annual reports, TR plans, and MA audits.

Pharmacies and other retailers, especially at the neighbourhood level, can initiate and publicize “take-back” programs for unused pharmaceuticals and hazardous wastes. Municipalities can support other stewardship opportunities.

Professional and occupational organizations like the Ontario Medical Association and the Agricultural Federations can inform workers and build commitment. Statistics Canada (especially its biomonitoring and other programs); Environment Canada, Health Canada, other federal departments and provincial governments; and organizations in the not-for-profit sector that collaborate on educational and outreach activities and materials.

#### **43 What types of information do consumers need to make informed choices when purchasing products that may contain toxics?**

Consumers need to know what the toxics are, health hazards associated with them, how to minimize their impact and find safer alternatives. They need ingredient lists with identification of ingredients associated with toxicity, carcinogenicity or other problems; their effects (why is it a hazard?) in plain language; and disposal options to minimize its environmental impact. Consumers need information about trends in toxics use, and about “green” companies.

Ontario needs a provincial ecolabelling plan, with a recognizable logo (similar to the skull-and-crossbones logo for hazards) to identify products that contain toxic substances.

#### **44 What is the most effective way, such as a website or through outreach, to educate consumers?**

Outreach activities are needed to reach those who do not have regular access to websites. Activities that involve participation, such as community meetings, conferences, symposia, and fairs, are effective - school presentations for anti-smoking and environmental conservation campaigns are examples. Targeted and highly-publicized commercial campaigns such as the “Think Pink” campaign for household products (and, more recently the “Think before you Pink” campaign by environmental groups) can be hugely successful.

A website is a highly effective tool to present information that is extensive, detailed, and regularly updated. It enables consumers to get specific information about their community or a particular company or product. A searchable website would include a site map that directs users to listings of toxins in their community,

the levels at which they are found, and the companies using or producing them. It would identify and quantify toxics that are released into the environment, in landfills, drainage pipes, smokestacks, and also list final products, including the identity and relative amounts of toxics they contain.

Other approaches include:

- Ø Eco-labelling of products, such as the Environmental Choice certification;
- Ø Warnings on product labels (e.g. cigarette labels);
- Ø Listing ingredients, highlighting known toxins;
- Ø The distribution of flyers to individual households;
- Ø Television commercials;
- Ø Press releases, press conferences and TIP sheets in newspapers and community newsletters, with specific information on individual products;
- Ø Workshops in community centres;
- Ø Outreach groups (e.g. the Canadian Cancer Society or the Canadian Lung Association which provide community education materials and services);
- Ø Public health departments, including Public Health nurses.

## **Section 8. Additional Comments**

- 1) The **TRS needs to include other sectors**, especially **waste management operations, incinerators, and end-of-life recovery programs** for products such as electronics and organochlorines. These services have considerable potential for alternative new programs and technologies to reduce emissions. We note that Phase II of the Municipal Hazardous or Special Waste (MHSW) program, scheduled for submission to the Minister by March 2009, will include pharmaceuticals and sharps.
- 2) Ontario programs need to move from an inefficient chemical-by-chemical focus, and **broaden the scope for reduction and elimination of groups of environmental carcinogens**.
- 3) “**Just transition**”, a principle of Cancer Care Ontario’s “*Insight on Cancer*” states that the cost of transition should not be borne disproportionately by workers in affected industries. We are unclear what processes would be required, and if the TRS includes this approach; more information would be helpful. Similarly, we are unclear how the “weight of evidence” principle which takes into account the combined results of many kinds of research to reach a conclusion about the need for action is translated into the TRS.
- 4) **Coordination and cooperation between all levels of government** need strengthening. Other jurisdictions should have access to Health Canada pre-market evaluations, stakeholder consultations, and reports on the setting of guidelines and standards.

- 5) We commend the **Ontario Cosmetic Pesticides Ban Act of 2008** which will significantly reduce toxics in the environment of children. We urge the Ministry to ensure that regulations are in place and enforced by spring 2009.
- 6) We urge provincial and municipal authorities to **stop using diesel-powered buses**. Diesel engines are a major source of fine particulate matter containing polyaromatic hydrocarbons and other known carcinogens. Alternative technologies are available.
- 7) We urge the Ministry to **support the development and implementation of alternative incinerator technologies** (or alternatives to incinerator technologies), as an active part of the TRS.

### ***Resources Consulted***

Cancer Care Ontario (2005) *Insight on Cancer: Environmental Exposures and Cancer*. retrieved 08.09.19 at <http://www.cancercare.on.ca/documents/InsightOnCancer-Environmental05.pdf>

Cancer Care Ontario (2007). *Proceedings of the Environmental Carcinogen Use Reduction Symposium*. retrieved 08.09.19 at [http://www.cancercare.on.ca/documents/Enviro\\_Carc\\_Use\\_Reduction\\_proceedings.pdf](http://www.cancercare.on.ca/documents/Enviro_Carc_Use_Reduction_proceedings.pdf)

Denison, R.A. (2007). *Not that Innocent: A comparative analysis of Canadian, European Union and United States policies on industrial chemicals*. retrieved 08.02.10 at: [www.environmentaldefense.org/documents/6150\\_NotThatInnocent\\_ExecSum.pdf](http://www.environmentaldefense.org/documents/6150_NotThatInnocent_ExecSum.pdf)

Enviroclub *What is Enviroclub?* Retrieved 08.09.14 at [www.enviroclub.ca/en/description](http://www.enviroclub.ca/en/description)

Environment Canada (2005). *A Guide to Understanding the Canadian Environmental Protection Act 1999*. retrieved 08.02.04 at [www.ec.gc.ca/CEPARRegistry/the\\_act/guide04/s1.cfm](http://www.ec.gc.ca/CEPARRegistry/the_act/guide04/s1.cfm)

Environment Canada (2008) *FAQs about the NPRI* retrieved 08.09.07 at [www.ec.gc.ca/pdb/npri/npri\\_about\\_e.cfm](http://www.ec.gc.ca/pdb/npri/npri_about_e.cfm)

Environment Canada (undated) *Ontario Environmental Leaders Program* retrieved 08.09.19 at [www.ncrweb.ncr.ec.gc.ca/cppic/en/ref/view.cfm?refId=2047](http://www.ncrweb.ncr.ec.gc.ca/cppic/en/ref/view.cfm?refId=2047)

Environment Canada (2008) *Report of the National Pollutant Release Inventory Multi-stakeholder Work Group on Substances*. retrieved 08.09.19 at [www.ec.gc.ca/pdb/npri/documents/WG2008/p1\\_e.cfm](http://www.ec.gc.ca/pdb/npri/documents/WG2008/p1_e.cfm)

Environmental Defence (2006) *Polluted Children Toxic Nation: A report on pollution in Canadian families*. retrieved 08.02.23 at [www.toxicnation.ca](http://www.toxicnation.ca)

Hyndman, B. (2005) *Strategies for the Reduction and Control of Environmental Carcinogens in Canada: What's Happening? What's Missing?* retrieved 08.09.19 at [www.cancercare.on.ca/documents/CCOoverviewenvSept3005.pdf](http://www.cancercare.on.ca/documents/CCOoverviewenvSept3005.pdf)

Ontario Ministry of the Environment (2008) *Creating Ontario's Toxics Reduction Strategy: Discussion Paper (Registry # 010-4374)* until October 11, 2008 at [www.ene.gov.on.ca/en/toxics](http://www.ene.gov.on.ca/en/toxics)

Ontario Ministry of the Environment (2008) *Reducing Environmental Toxics: The McGuinty Government Commitment*. retrieved 08.09.19 at [www.ene.gov.on.ca/en/news/2007/112001.php](http://www.ene.gov.on.ca/en/news/2007/112001.php)

Stewardship Ontario (2008) *The MHSW Program: Frequently Asked Questions*. retrieved 08.09.05 at [www.stewardshipontario.ca/mhsw/faqs/faqs.html](http://www.stewardshipontario.ca/mhsw/faqs/faqs.html)

Tomorrow Today (2008) *Tomorrow Today: How Canada can make a World of Difference*. Retrieved 2008.03.09 at: [www.TomorrowTodayCanada.ca](http://www.TomorrowTodayCanada.ca)

Toxics Reduction Expert Panel (2008) *July 23, 2008 Memorandum to Environment Minister John Gerretsen from the Toxics Reduction Scientific Expert Panel* retrieved 08.09.19 at [www.ene.gov.on.ca/en/toxics/memorandum072308.php](http://www.ene.gov.on.ca/en/toxics/memorandum072308.php)

Toxics Reduction Expert Panel (2008). *Terms of Reference for the Toxics Reduction Scientific Expert Panel*. retrieved 08.09.19 at [www.ene.gov.on.ca/en/toxics/terms.php](http://www.ene.gov.on.ca/en/toxics/terms.php)

Toxics Reduction Expert Panel (2008) *Building a Green Ontario through Toxics Reduction*: retrieved 08.09.19 at [www.ene.gov.on.ca/en/toxics/panel.php](http://www.ene.gov.on.ca/en/toxics/panel.php)

### **Acronyms**

CBI	Confidential Business Information
CEPA	Canadian Environmental Protection Act 1999
CFUW	Canadian Federation of University Women
EDC	Endocrine disrupting chemical
GHG	Greenhouse Gas
MA	Materials Accounting
NPRI	National Pollution Release Inventory
PM2.5	Particulate Material < 2.5 u
SME	Small and Medium-sized Enterprise
TRP	Toxics Reduction Plan
TRS	Toxics Reduction Strategy
VOC	Volatile Organic Chemical
WHMIS	Workplace Hazardous Materials Information System

## APPENDIX A

### **SOME CANADIAN FEDERATION OF UNIVERSITY WOMEN POLICY CONCERNING TOXICS and the ENVIRONMENT**

**Note:** Policy for CFUW Ontario Council integrates resolutions passed by CFUW Ontario Council ([www.cfuwontcouncil.ca](http://www.cfuwontcouncil.ca)) as well as the Canadian Federation of University Women (CFUW) ([www.cfuw.org](http://www.cfuw.org)) and the International Federation of University Women (IFUW).

#### **Pollution Problems - Solution Strategies**

IFUW, 1998

RESOLVED, That national federations and associations urge their respective governments without delay to give priority to the development of:

1. a campaign together with other governments to counter pollution problems;
2. specific strategies and practical ecological measures to master the escalating pollution of metropolitan areas;
3. environmental education programs that will create awareness among both adults and children of the gravity of these problems so that responsibility for environmental improvement is accepted at both personal and government levels; and
4. specific strategies to involve women at every stage of environmental interaction, including international meetings.

#### **Hazardous Waste**

CFUW, 1981

RESOLVED, That the Canadian Federation of University Women (CFUW) urge the Government of Canada and the provincial and territorial governments to implement a compulsory registration of toxic waste products, whether in liquid, semi-liquid, solid, semi-solid or gaseous form, with specification as to type, origin, quantity, present location and final disposal plans;

RESOLVED, That these same governments encourage the generators of toxic wastes to reduce the output and reuse the waste products by the development of alternative processes;

RESOLVED, That these same governments formulate clear and precise regulations concerning the transportation of toxic waste products, where these regulations are not already in place;

RESOLVED, That these same governments set up verification and enforcement procedures to ensure the safe disposal of toxic waste products, on short and long term bases, specifically to avoid leakage into the environment; and

RESOLVED, That these same governments enforce prohibitive penalties against these generators and transporters of toxic waste who are in violation of the regulations.

#### **Household Hazardous Waste (CFUW, 1990)**

RESOLVED, That the Canadian Federation of University Women (CFUW) urge all levels of

government to cooperate in providing the public with regular, accessible and safe systems of collection and disposal of household hazardous wastes;

RESOLVED, That CFUW urge the Government of Canada, the provincial and territorial governments and municipal governments to ensure the availability of, and, where lacking, to initiate comprehensive information programs to educate the public about:

1. the dangers of household products hazardous to human health and the environment;
2. the safe disposal of hazardous household products;
3. the diversion of products from the hazardous waste stream by reuse wherever safely possible; and
4. the preferred use of non-hazardous and less hazardous products.

RESOLVED, That CFUW urge the federal, provincial or territorial governments to initiate, and/or continue to research and report on the long-term effects of the unsafe disposal of hazardous waste on human health and the environment.

RESOLVED, That CFUW urge the Government of Canada to enact legislation requiring all household products containing hazardous ingredients, manufactured or sold in Canada, to be labelled as hazardous, and to include safe disposal instructions on the label.

RESOLVED, That CFUW urge all its Provincial Councils and member clubs to:

1. become informed of the significance and dangers of the improper disposal of hazardous household waste, and promote, where applicable, the use of safe alternatives;
2. monitor the adequacy and effectiveness of household hazardous waste management programs when established; and
3. exert consumer pressure on industry to research, develop and market safe alternatives.

**Household Hazardous Waste (IFUW, 1992)**  
IFUW, 1992

RESOLVED, To encourage the national federations and associations to urge their respective governments to initiate and sustain comprehensive information programs to educate the public about:

1. the dangers of household hazardous wastes;
2. their safe disposal;
3. the diversion of products from the hazardous waste stream by re-use wherever safely possible; and
4. the use of non-hazardous and less hazardous alternative products;

RESOLVED, To encourage the national federations and associations to call upon their respective governments to co-operate in providing the public with regular, accessible and safe systems for the collection and disposal of household hazardous waste;

RESOLVED, To urge the national federations and associations to:

1. facilitate the dissemination of information on the significance and dangers of the improper disposal of household hazardous wastes and promote, where applicable, the use of safe alternatives; and
2. exert consumer pressure on industry to research, develop and market safe alternatives to hazardous household products.

**Waste Management**

CFUW, 1989

RESOLVED, That each member of the Canadian Federation of University Women (CFUW) be urged to become environmentally responsible by taking an active role in reducing her use of paper products, products containing chlorofluorocarbons, plastics, disposable consumer products and toxic household substances and by consciously choosing to support environmentally sound alternatives; and

RESOLVED, That CFUW urge community groups the Government of Canada, the provincial and territorial governments and municipal governments and private businesses to:

1. promote and implement recycling programs for all reusable and recyclable products and to promote research for the uses of these products; and
2. carry forward a plan that moves by stages towards a total ban of products dangerous to health and the environment, in particular, those causing destruction of the ozone layer and to promote the use of safe alternative products.

APPENDIX B**Canadian Federation of University Women  
ONTARIO COUNCIL****Club Locations**

Ajax – Pickering	Kincardine	Orleans
Aurora - Newmarket	Kingston	Oshawa & District
Barrie & District	Kitchener - Waterloo	Ottawa
Belleville & District	Leaside - East York	Owen Sound & Area
Brampton	London	Perth
Brantford	Markham- Unionville	Peterborough
Brockville & District	Milton & District	Renfrew & District
Burlington	Mississauga	Sarnia Lambton
Cambridge	Muskoka	Saugeen
Chatham -Kent	Nepean	Scarborough
Cornwall & District	Niagara Falls	Southport
Etobicoke	Norfolk	St. Catharines
Georgetown	North Bay	St. Thomas
Georgian Triangle	North Toronto	Stratford
Grimsby	North York	Sudbury
Guelph	Northumberland	Thunder Bay
Haliburton Highlands	Oakville	Toronto
Hamilton	Orangeville & District	Vaughan
Kanata	Orillia	Welland & District
		Windsor