INTERSTATE CHEMICALS CLEARINGHOUSE

Interstate Chemicals Clearinghouse (IC2) Research Paper: Existing Chemical Use Reporting Programs

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There are U.S. state and international programs that require manufacturers to report on the use of certain chemicals in products. Although not identical to the requirements enacted by the IC2-member states, there are similarities and differences among these programs that may help inform the structure and content of a coordinated Interstate Chemicals Clearinghouse (IC2) reporting form. The purpose of this paper is to describe these programs and the lessons learned by the regulatory agencies charged with implementing them to help inform IC2's chemical use reporting efforts.

Interstate Mercury Education and Reduction Clearinghouse (IMERC)

The 15 IMERC-member states have established a variety of requirements to reduce the potential for exposure to mercury from using and disposing of products. Currently, eight of the member states require manufacturers of mercury-added products that are sold or distributed in these states to provide a report on the products and their mercury content. This reporting requirement, called Product Notification, was first enacted in 2001 by New Hampshire and is also now in effect in Connecticut, Louisiana, Maine, Massachusetts, New York, Rhode Island, and Vermont. The states' reporting requirements are intended to help them inform consumers, recyclers, policy makers, and others about:

- Products that contain intentionally-added mercury
- The amount of mercury in a specific product
- The total amount of mercury, by product line, that was sold in the U.S. in a given year

The eight IMERC-member states with the notification requirement formed a Notification Committee that is responsible for coordinating implementation of the states' notification process. This group created a coordinated reporting form, called the Mercury-added Product Notification Form, which satisfies all of their individual notification laws and regulations. The Form asks for the following information:

- Reporting company contact information
- Manufacturer contact information and NAICS code identifying the company's industry sector
- Name of mercury-added product and components contained within (if applicable)
- Mercury content located within one individual component – company may list content as a range
- Purpose of the mercury in the product

- Total mercury in the product based on U.S. calendar-year sales (i.e., 2001, 2004, 2007, 2010)

All data submitted directly to IMERC is available to the public. Since 2001, nearly 500 companies have submitted product notifications to the participating states through IMERC covering over 4,400 products (not including single products reported by multiple manufacturers).

Currently, filers submit a Mercury-added Product Notification Form at least every three years. A senior official from the company signs the Form, certifying that the information on it is true, accurate, and complete to the best of their knowledge and belief. The data on mercury use in products contained on these Forms is the only original source of this information available in the United States. Manufacturers of mercury-added products will next be required to submit forms in 2011 covering products sold in calendar year 2010. IMERC makes the information on forms available online through the Mercury-added Products Database[1], which provides a list of mercury-added products that are currently in commerce.

IMERC is currently developing the capability to support electronic filing of notification forms with an automated way to fill the database. This should create greater efficiencies for the companies and the participating state agencies in their implementation of this requirement. This e-filing system should be in place by the fall of 2011.

Due to the differences in CBI policies of the states that require mercury-added product notification, mercury use data submitted through IMERC is not confidential. All CBI claims for a mercury-added product notification are submitted directly to each state agency, and they act on the request based on its regulations. The IMERC-member states have received relatively few CBI claims on the product notification. In part, this is due to the allowance of reporting mercury content of individual products in ranges, which makes it difficult or impossible to ascertain the exact amount of mercury in the product.

The IMERC-member states with the mercury-added product notification requirement use the information they collect to:

- Identify trends in mercury use by product category
- Identify companies that are required to collect and recycle mercury-added products at their end-of-life
- Identify companies whose products are subject to sales restrictions and product labeling requirements
- Set priorities for mercury product collection and recycling initiatives
- Educate policy makers and the public on mercury use in products

For more information on IMERC, see: http://www.newmoa.org/prevention/mercury/imerc.cfm

California Safe Cosmetics Program

The Safe Cosmetics Act of 2005 requires the manufacturer, packer, and/or distributor named on the product label to report cosmetic products that contain any ingredients known or suspected to

[1] www.newmoa.org/prevention/mercury/imerc/notification/

cause cancer, birth defects, or other reproductive harm (i.e., a list of about 700 chemicals) to the California Department of Public Health (CDPH).

Reports are made to CDPH through an online system developed in house and hosted by an outside entity. Information is collected on: product name; intended application area; form of product; product category; components supplied by another company; reportable chemical name (CAS number); and chemical concentration.

The California Safe Cosmetics Program intends to use the data collected in many non-regulatory ways, since they do not have the authority to regulate the cosmetic products on which they collect data. Some uses of the data include:

- Education and outreach for the general public on target chemicals of concern
- Dissemination of the data on dangerous products to regulators (i.e., CA Food and Drug Branch, CalOSHA, CalEPA, CA Department of Toxic Substances Control or DTSC)
- Initiation of additional research on exposures and substitutes for products and chemicals of concern

For more information on this Program, see:
http://www.newmoa.org/prevention/ic2/members/CA_CSCP.pdf
http://www.cdph.ca.gov/programs/cosmetics/Pages/default.aspx

California Pesticide Use Reporting

California's pesticide use reporting system has been in place in some form since 1950, with the current system beginning in 1990. Monthly reporting to the county agriculture commission is required for all agricultural pesticide uses. "Agricultural use" is broadly defined to include pesticide applications to parks, golf courses, cemeteries, rangeland, pastures, and along roadside and railroad rights-of-way. In addition, all postharvest pesticide treatments of agricultural commodities must be reported along with all pesticide treatments in poultry and fish production as well as some livestock applications. The primary exceptions to the reporting requirements are home-and-garden use and most industrial and institutional uses. These counties submit these reports to the state agency.

Historically, all submissions were made using paper forms. Currently, both electronic and paper reporting is used. Although there have been efforts to develop more electronic reporting, much of the regulated community still relies on paper forms. Each county has its own information collection system and procedures. To date, the counties have supported their databases, information collection system, and data interpretation and analysis. However, the counties have recently reached an agreement to harmonize the way they gather data. Information is collected on: date and location of application; operator name and address; applicator name and address; pesticide product name and manufacturer; amount of pesticide used (pounds of product); commodity/crop/site treated; and application method.

For these programs, the counties and state do not consider the information to be confidential. All of the information is made publicly available through the California Pesticide Information Portal[2] and annual reports[3].

The Pesticide Use Reporting program largely uses the data to understand the trends in pesticide usage through the compilation of annual reports and statistics.

For more information on this Program, see:
http://www.newmoa.org/prevention/ic2/members/CA_DPR.pdf
http://www.cdpr.ca.gov/docs/pur/purmain.htm

New York Pesticide Use Reporting

In New York State, all certified commercial applicators and technicians must report pesticide applications annually. Additionally, all manufacturers, importers, and compounders must report sales of restricted use pesticides and sales of general use agricultural pesticides to certified private applicators annually.

The reporting system is based on paper forms. However, Internet reporting options[4] are also available. Data is submitted to the New York State Department of Environmental Conservation (NYS DEC) and transferred to Cornell University, where it is stored, processed, and analyzed. Data collected from certified applicators includes: product name; quantity used; date of application; county; address; municipality; and zip code. Data collected from entities licensed to sell to private applicators includes: product name; quantity sold; date sold; county; and location of intended application. Data collected from entities selling restricted use pesticides includes: product name; container size; and number of containers sold.

For pesticide use reporting programs in New York, none of the information collected is considered confidential business information. In New York, all of the information is made available to the public at the county and zip code level in an online resource provided by the Pesticide Sales and Use Reporting (PSUR) Database Group at Cornell University[5]. Researchers and other agencies can get the information at the address level after going through a cumbersome approval process.

The Pesticide Use Reporting program in New York largely uses the data collected to understand the trends in pesticide usage through the compilation of annual reports and statistics.

For more information on this Program, see:
http://www.newmoa.org/prevention/ic2/members/NY_Pesticide_Use_Reporting.pdf
http://www.dec.ny.gov/chemical/27506.html

[2] http://calpip.cdpr.ca.gov/main.cfm
[3] http://www.cdpr.ca.gov/docs/pur/purmain.htm
[4] http://www.nysprl.com/
[5] http://pmep.cce.cornell.edu/psur/

The Wercs

The Wercs provides software and professional services for chemical-related industries. They have developed the WERCSmart Portal, an electronic reporting system, for retailers to collect chemical use in product information from their suppliers. Participating retailers require their suppliers to report chemical use information into the WERCSmart Portal before they will begin selling them. As of October 2010, more than one dozen participating retailers require submission through the WERCSmart Portal.

Suppliers provide basic information on the product and its chemical composition, including: product category; product use; and full disclosure of intentionally-added chemical ingredients (CAS number and weight percentage for all components). Each participating retailer can also ask the supplier to provide additional information, which is collected through configurable data tabs. The supplier pays a fee to enter each product into the system.

To date, The Wercs has gathered data from over 2,500 suppliers on over 160,000 unique consumer products, including automotive, household cleaning, industrial cleaning, pool supplies, health/beauty, batteries, lawn and garden, and over the counter pharmaceuticals. They have collected data on solid, liquid, and gel chemical products. Information on articles is not collected at this time.

The Wercs protects the information submitted by suppliers as confidential. The CAS number and weight percentages of all ingredients are not shared with retailers. The data belongs to the suppliers, and they indicate with whom they want to share the information. The Wercs provides only a summary report to the retailers.

The Wercs uses the information collected from suppliers to create various reports for retailers, including reports on regulatory compliance (i.e., correct handling, storage, transportation and disposal of chemical based products, local restrictions, OSHA requirements) as well as on green chemical screening and scoring. This information is not made public.

For more information on this Program, see:
http://www.newmoa.org/prevention/ic2/members/The_Wercs.pdf

Norwegian Product Register

In Norway, all chemical substances identified as dangerous (based on EU Classification and Labeling Directive) and chemical products containing 1 percent or more of chemical substances that is identified as dangerous and produced, imported, or placed on the market in amounts greater than 100 kilograms (kg) must be registered annually. There is no requirement to declare any solid processed articles.

The register includes approximately 25,000 chemical substances/products, with a net increase of about 500 new products per year. This represents about 90 percent of the chemical substances/products on the market that are subject to registration requirements. Information is collected on: trade name; risk phrases and symbol letters; list of customers; branches of industry where used; use code; and complete chemical composition of the product (full ingredient disclosure, including CAS number).

Declarations began in 1982 using a paper form submitted by mail. An electronic system was put in place in 2004. In order to report electronically, a database of registered chemicals and chemical products are given to the company responsible for reporting. The company then sends information directly to the agency via an encrypted line. Currently, about one-third of the reports are received electronically, and two-thirds are received via submission of the paper form. Stringent security requirements present challenges to the implementation of web-based reporting.

Norway has strict security laws that permit submitters to claim information as confidential, and the Product Register allows submitters to make such claims. If there is a public request for this information, the submitter is then asked to substantiate their confidentiality claim. Non-confidential information is made available to the public via the Product Information Bank[6] and the SPIN Database.[7] Several Norwegian agencies use the product register, and all agencies have a secure, direct link to the database.

The Norwegian Product Register uses the data collected for many different purposes, including:

- Supervise and control product labeling and chemical documentation
- Create statistics for the national authorities
- Supervise chemical substances on the Norwegian market
- Control the flow of chemicals that are subject to international agreements
- Create advice and guidance in emergency poisoning
- Inform work related to occupational health and safety

For more information on this Program, see:
http://www.newmoa.org/prevention/ic2/members/Norwegian_Products_Register.pdf
http://www.klif.no/no/english/english/The-Product-Register/

Swedish Products Register

In Sweden, all chemical products (substances and preparations) manufactured or imported into the country in quantities of 100 kg or more must be registered annually. There is no requirement to register articles. The register includes approximately 78,000 chemical products currently on the market, with 7,000-8,000 new products added per year. This represents 95 percent of the reportable tonnage. Information is collected on: CAS number; use code; branch of industry where used; consumer availability; quantity (tons); risk phrases and symbol letters; and composition of the product (all ingredients that are more than 5 percent by weight are reported and all preservatives and chemicals with hazardous properties are reported regardless of weight).

The register was founded in 1978 and began a phased implementation process. In the first phase, all manufacturers and importers were identified. In the second phase, information was collected in stages, which began with requests for more general information and evolved into the required reporting of more specific, detailed information. Paper forms were used exclusively until 2008,

[6] http://www.pib.no/Mainx.aspx?Ctrls/EnglishCtrl
[7] SPIN is a database on the use of Substances in Products in the Nordic Countries. The database is based on data from the Product Registries of Norway, Sweden, Denmark, and Finland.
http://195.215.251.229/DotNetNuke/default.aspx

when an electronic reporting option was made available. Today, the majority of companies still report using the paper form, although about 400 companies covering more than 50 percent of the products included in the register report electronically.

The Swedish Product Register allows submitters to claim information as confidential. Submitters may claim quantity and composition, including the exact percentage by weight, as confidential. Half of the reporting companies also claim the product names as confidential. Non-confidential information is made available to the public in the SPIN database. Confidential information is summarized in publicly available statistics and reports.[8]

In Sweden, the information is used to support work on risk assessments, statistical calculations, substance flow analyses, and supervision. Other central authorities, including the Swedish Work Environment Authority, Swedish Environmental Protection Agency, and regional and local authorities also use the information from the register in their work.

For more information on this Program, see:
http://www.newmoa.org/prevention/ic2/members/Swedish_Products_Register.pdf
http://www.kemi.se/templates/Page____2972.aspx

Lessons Learned from Existing Chemical Use Reporting Programs

In the process of developing and implementing their chemical use reporting systems, the programs described above have identified a number of challenges and barriers.

Technological Challenges

The California Safe Cosmetics Program (CSCP) struggled with the creation of a reporting form and the technological challenges of building an online reporting system from scratch. In creating their reporting form, CSCP learned that collaboration between content experts and programmers as early in the process as possible was necessary for effectively translating the form into an online reporting system. Specifically, in regard to the content of the form itself, CSCP advises others implementing this process to reduce free text boxes as much as possible and create a logical sequence to "ask questions." To solve the technological challenges, CPSC sought technical support from outside the Department of Public Health to solve data security issues.

Information Challenges

Implementers at the CSCP, California Pesticide Use Reporting Program, and the Swedish Product Register noted that in order to effectively collect chemical use information, there must be a good understanding of the regulated community, the amount of reporting required, and the data that is necessary to meet specifically defined purposes. Sweden was able to develop the requisite understanding and identify the information that was necessary by implementing its data collection in a step-wise fashion, phasing in requirements over time. CSCP is still struggling to identify the universe of regulated entities and target the entities that have the information they are seeking. At the outset of its implementation, the California Pesticide Use Reporting Program was overwhelmed by the number of reports it received and struggled to process the data

[8] http://www.kemi.se/templates/Page____2971.aspx

effectively; however, the program has since adapted to the complexity of their reporting system by allocating the resources necessary to handle the reports.

Harmonization Challenges

Despite a number of efforts and a strong desire to harmonize existing product registers in the Nordic countries, implementers identified a variety of reasons for the failure to create centralized reporting to the Nordic Product Registers. Since the individual registers have 15-20 years of individual implementation experience and well-defined systems, it became difficult, if not impossible, to harmonize or create a centralized reporting scheme. Additionally, due to the collection of country-specific information and the differences in secrecy laws, implementers concluded that the countries would need to change their existing laws in order to harmonize their efforts. Although complete harmonization has not occurred, the Nordic countries have been able to harmonize some aspects of their reporting systems and have worked to make them as uniform as possible. For example, the Nordic counties have successfully harmonized the participants' use codes.

The California Pesticide Use Reporting Program, after decades of work, was able to harmonize the way pesticide use data is collected at the county level. Although this suggests that harmonization after extended individual implementation efforts is possible, they had to address many challenges in the program.

Resources Challenges

All of the chemical use reporting programs that are reviewed above identified resource limitations as a barrier to the effective development and implementation of their systems.