Proceedings Report – Stakeholder Roundtables

United States-Canada Regulatory Cooperation Council: Supply Chain Communication and U.S. EPA's SNUR and EC/HC's SNAc Programs

FINAL REPORT

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List of Acronyms

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CACD	Canadian Association of Chemical Distributors
CAS	Chemical Abstract Service
CBI	Confidential Business Information
CDR	Chemical Data Reporting (United States)
CEPA	Canadian Environmental Protection Act
CFR	Code of Federal Regulation (United States)
CMP	Chemicals Management Plan (Canada)
DoD	U.S. Department of Defense
DSL	Domestic Substances List (Canada)
EC	Environment Canada
ELV	End of Life Vehicles (European Union)
EPA	U.S. Environmental Protection Agency
FPA	Forest Products Association (Canada)
FR	Flame Retardant
GADSL	Global Automotive Declarable Substance List
НС	Health Canada
IMDS	International Material Data System
MOU	Memorandum of Understanding
NASA	National Aeronautics and Space Administration (United States)
NCASI	National Council of Air and Stream Improvement
NDA	Non-Disclosure Agreement
NDSL	Non-Domestic Substances List (Canada)
OEM	Original Equipment Manufacturer
OSHA	Occupational Safety and Health Administration (United States)
PMN	Premanufacture Notice
RCC	Regulatory Cooperation Council
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals (European Union)
RM	Risk Management
RoHS	Restriction of Hazardous Substances Directive (European Union)
SDS	Safety Data Sheet
SNAc	Significant New Activity (Canada)
SNAN	Significant New Activity Notification (Canada)
SNUN	Significant New Use Notice (United States)
SNUR	Significant New Use Rule (United States)
SRS	Substance Registry System (United States)
SVHC	Substance of Very High Concern
TSCA	Toxic Substances Control Act (United States)

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The Horinko Group in cooperation with Noblis hosted roundtable discussions on September 17, 2015 and September 22, 2015 on behalf of U.S. Environmental Protection Agency and Environment Canada/Health Canada under the United States-Canada Regulatory Cooperation Council. This report reflects the information exchanged at the roundtables as understood by The Horinko Group and Noblis and is not an official representation of the agencies or companies present.

1 Introduction

The U.S. Environmental Protection Agency (EPA) and Environment Canada/Health Canada (EC/HC) are working together under the Regulatory Cooperation Council (RCC). The goal of RCC generally is to increase regulatory transparency and coordination between the two countries. An area of focus of the RCC is a comparison and alignment of U.S. EPA's Significant New Use Rule (SNUR) and Canada's Significant New Activity (SNAc) programs.

In an effort to enable discussions with knowledgeable stakeholders in the areas of SNAc/SNUR compliance strategies and compliance promotion, The Horinko Group and Noblis, on behalf of EPA, convened stakeholders throughout the supply chain and facilitated two roundtable discussions focused on:

- Best practices for SNUR/SNAc compliance as well as existing barriers;
- How regulators and stakeholders can increase efficiencies in the way compliance promotion is conducted;
- How stakeholders and regulators can help promote and enhance the sharing of information throughout the supply chain to facilitate the tracking and compliance with SNURs/SNAcs; and
- Whether chemical tracking information is or should be integrated with green procurement and sustainable facility plans.

The first roundtable was held on September 17, 2015, in Washington, DC, and the second was held on September 22, 2015, in Toronto, Ontario. Each roundtable was comprised of a group of stakeholders from government, private industry, non-governmental organizations, trade associations, and focused on each country's respective regulatory framework for SNAc and SNUR requirements. The discussions provided a unique opportunity for mutual learning, information gathering, and sharing of best practices among a diverse group of seasoned experts.

As background for the roundtables, a report developed by Noblis and The Horinko Group was distributed as read-ahead information for all roundtable participants. The meeting format for each roundtable consisted of introductions by EPA at the U.S. roundtable and EC/HC at the Canada roundtable outlining the agencies' cross-border efforts with the RCC. Each country expressed its interest in promoting and enhancing the sharing of chemical information throughout the supply chain and improving SNUR/SNAc compliance. The roundtables also included case study presentations by speakers representing different industry sectors. Following

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 $^{^{1}\,\}underline{\text{http://www.thehorinkogroup.org/wp-content/uploads/2015/09/Background-Report-Final-SNUR-SNAc-18-Aug-15.pdf}$

the case study presentations, a moderated discussion was held to further explore the ideas presented.

2 U.S. Roundtable Recap

The discussion that took place at the U.S. roundtable in Washington, DC highlighted the need for increased clarity regarding SNUR requirements and great outreach and education throughout the supply chain. SNUR promulgation has accelerated in recent years, and the regulated community is having to come up to speed on these requirements and their implementation. Thus, levels of sophistication and understanding in managing for compliance vary widely throughout the supply chain.

The primary mechanism that many U.S. stakeholders have relied on for communicating SNUR information downstream in the supply chain is the Safety Data Sheet (SDS), whose requirements are governed by the Occupational Safety and Health Administration (OSHA). As such, stakeholders emphasized the importance for enhanced coordination between EPA and OSHA to determine how their respective programs, mandatory and voluntary, can more effectively work with one another to promote compliance with both agencies' requirements.

The regulated community has experienced greater success in complying with SNURs for new chemicals, while SNURs on existing chemicals and those for which the article exemption is waived have proved to be more challenging. The latter are more difficult to track down in the supply chain, the requirements are not as well understood, and the SDS cannot always be relied upon as the downstream notification mechanism because the SNUR reporting on Section 15 of the SDS is voluntary under the OSHA Hazard Communication Standard.

Industry representatives shared examples of data collection systems used to track chemicals, and shared best practices for SNUR compliance generally, but it was clear that even the more mature systems had limitations with respect to SNURs. A number of opportunities were identified by which industry, government, and all stakeholders collaboratively can improve SNUR compliance.

Key takeaways from the U.S. roundtable are summarized in Tables 1 and 2 and further detail is provided in Appendix A, Roundtable Proceedings.

Table 1. U.S. Roundtable Summary – Identified Industry Best Practices.

Identified Industry Best Practices Develop systems and databases to identify chemicals in purchased or manufactured products by CAS number, or an alternative identifier, that may be cross referenced with regulatory lists. Make the case for investing adequate time and resources into chemical tracking in order to recognize limitations in the supply chain and effectively manage business risk. If feasible, use a subscription-based tool (e.g., Ariel, LOLI, CHEMLIST, RightAnswer, BOMcheck) that compiles chemical regulatory lists to stay up to date with changes in regulation. Ideally, integrate internal tracking database with subscription-based tool to trigger a notification when newly regulated chemicals are present in products. Utilize ChemView's chemical categories list and SNUR chemical summary sheets to forecast problematic chemicals that might be subject to a SNUR in the future.

Cross-Division Collaboration	• Improve cross-division coordination between health and safety, environmental compliance, and procurement departments to enhance chemical regulatory management and compliance efforts.
Requesting Data from Suppliers	 When importing materials from a foreign supplier, investigate whether the supplier has a U.S. branch/representative that could provide a U.S. SDS. Recognize limitations in the supply chain and areas where expertise must be provided or information needs to be tracked down on behalf of a supplier. Use category-based universal declarations to collect information where suppliers are unwilling to provide full chemical content or specific CAS numbers. Tailor information requests to individual supplier preferences, sophistication, and market factors for increased response rate, and distill information requests down to their simplest possible elements. Work with suppliers to verify that all reportable substances are included on submissions and to fill in gaps where necessary. Revise standardized purchase orders and supplier contracts to require disclosure of SNUR coverage. Use non-disclosure agreements (NDAs) to obtain more complete material disclosure. Tailor NDAs to supplier preferences or design NDAs so that access to information is limited to select company representative(s).
Downstream Notification & Outreach	 Conduct outreach and education to customers to clarify meaning and requirements of SNUR coverage so that it is less of a competitive disadvantage. Make the essential SNUR compliance information clear and available to the customer, potentially in a technical addendum to the SDS.

Table 2. U.S. Roundtable Summary – Suggestions for Government Support.

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Suggestions for Government Support		
Streamlining & Clarifying Requirements	 Harmonize chemical identification by providing CAS numbers in SNURs to the greatest extent possible, providing accession numbers in addition to Premanufacture Notice (PMN) numbers for confidential SNURs, and amending historical SNURs listed by PMN number that now have CAS numbers available for ease in tracking. Add a threshold of regulation to SNURs—whether in terms of a concentration, hazard, or exposure to be avoided—in order to eliminate the SNUR reporting requirement when it is no longer necessary. Eliminate the § 12(b) downstream notification requirement for proposed SNURs, including historical proposed (but never finalized) SNURs (requires Congressional actions). Clarify this requirement to make it simpler for suppliers to find and understand, as well as to ensure that unnecessary requirements do not linger. Inform companies that imported articles containing substances subject to SNURs, for which the article exemption is waived, about the requirements of those SNURs and generally clarify the downstream notification requirements for articles. Work with trade associations to begin this outreach while looking for ways to target companies and suppliers outside of trade associations. Consider use of plain language in SNUR regulations to clarify requirements. 	
Inter-Agency Collaboration	 Coordinate with OSHA to clarify how EPA's SNUR requirements can be integrated with OSHA's SDS through a memorandum of understanding (MOU) or other means, addressing general requirements, TSCA Class 2 substances, and SDS Section 15 update requirements. 	

- Enhance general education and outreach efforts to bring the supply chain up to speed on SNURs.
- Message SNURs in a way that reduces associated stigma and clarifies their intent so that SNUR chemicals, and especially greener SNUR chemicals, are not disadvantaged. Potentially communicate SNURs as a means to begin addressing information sharing needs more broadly.
- Strengthen stakeholder outreach prior to and following the introduction of new chemical SNURs.
- Consider modifying SNUR chemical summary sheets using plain language to clearly explain the requirements for the regulated community.
- Provide background education to various stakeholder groups in a webinar format. Consider webinars of varying levels of detail and geared toward different audiences including:
 - General information on procurement and overall management of chemical regulation, tracking, supply chain communication, and compliance
 - Sector-specific information and requirements
 - Tailored to smaller enterprises
 - Focused on foreign suppliers and importer-specific issues
 - Developed in partnership with Canada under the RCC, followed by O+A
- Provide guidance on the specific language that stakeholders ought to include in SNUR notifications to increase clarity and ease of compliance.
- Develop compliance promotion materials such as primers explaining SNURs and notification requirements, which suppliers could share with their customers. Consider tailoring resources to specific sectors.
- Conduct outreach to unconventional trade associations to access under-served stakeholders and sectors. Consider using Chemical Data Reporting rule to gather information on lessinformed sectors using SNUR materials to enhance compliance.
- Establish an EPA listserve for SNURs and work with trade associations to encourage companies to sign up. Further educate stakeholders on ChemView as a resource to access SNUR chemical information.
- Convene supplier education forums in partnership with industry, and potentially linked to existing industry conferences, to bring in a wide array of suppliers and increase knowledge sharing and education on SNUR compliance. This could be approached in a sector-specific fashion.

3 Canada Roundtable Recap

At the Canadian roundtable in Toronto, Ontario, participants emphasized the significant improvements that have been made in the SNAc program in recent years and identified opportunities to expand and continue this progress. Though stakeholders are appreciative of the flexibility built into SNAc requirements, compliance challenges remain, particularly with respect to existing chemical SNAcs and lack of familiarity of SNAcs from foreign supply chain partners. Importers face numerous challenges in a country that is highly import-dependent given the varying levels of sophistication among supplier companies and countries.

Many Canadian stakeholders rely on the SDS as a starting point for SNAc communication and compliance, but the SDS is one among a number of tools employed by companies. Data gathering systems and practices vary broadly by company and industry sector and a host of best practices were suggested throughout the course of the discussion, but the need to develop more comprehensive systems solutions was noted.

Education

Outreach &

The day's discussions frequently returned to the need for improved outreach and education to uninformed companies and parts of the supply chain, both on part of industry and government. Participants also identified several opportunities for the U.S. and Canada to collaborate on education and outreach to strengthen messaging through the global supply chain and improve compliance for both countries.

Key takeaways from the Canadian roundtable are summarized in Tables 3 and 4 and further detail is provided in Appendix A.2.

Table 3. Canada Roundtable Summary – Identified Industry Best Practices.

Table 6. Gallage Roundable Galliniary Table 11 Table 6.		
Identified Industry Best Practices		
Chemical Tracking Systems & Practices	 Track chemicals in products and collect associated regulatory information to the greatest extent possible. Use this information to look at hypothetical formulations before finalizing product design to build in compliance plans. Engage technology providers for insights on enterprise solutions for SNAc compliance promotion. 	
Downstream Notification	 Use SNAc notification as opportunity to communicate with suppliers to determine compliance terms. For upstream companies, send out proactive letters alerting customers to regulatory changes affecting the supply chain, even in advance of notification through an SDS or otherwise. In addition to standard communication tools like the SDS for information gathering and notification, consider alternatives such as: Mandating an affirmative statement from suppliers that "all substances are on the DSL and the product contains no SNAc-controlled substances" Requiring a signed letter back from the customer before an order can be processed Using procurement or distribution agreements to establish information transfer requirements 	
Requesting Data from Suppliers	 Collect information on regulatory status from supplier questionnaires or surveys where appropriate. Target surveys to specific parts of the supply chain where chemicals of concern might be present and provide examples of the chemical's potential uses. Rely on third parties for the data collection process to protect Confidential Business Information (CBI). Explore mechanisms to request full disclosure from suppliers under confidentiality agreements where the scenario necessitates it, e.g., distributors purchasing from suppliers unfamiliar with Canadian regulations. 	

Outreach & Education	 Educate suppliers and customers about SNAcs to the greatest extent possible during ongoing communications with them. Provide a link to the government's SNAc webpage² and/or reference the comprehensive SNAc list.³ Establish an annual forum where sector-working group leads alongside government sector leads gather to share knowledge and best practices on data gathering, supply chain communication, risk assessment, CBI, and related topics across sectors. Work with EC/HC to engage communities of stakeholders unaware of their requirements. Do so by leveraging existing forums like the Industry Coordination Group (ICG) CEPA workshops. Involve more advanced sectors in such educational forums to share solutions and perspectives on compliance challenges. Promote EC/HC's Chemicals Management Plan (CMP) materials and CMP compliance broadly through the supply chain. For foreign suppliers and customers, distribute companion pieces to CMP materials in the 13 languages those materials are available in.
Cross- Division Collaboration	 For multi-facility companies, require separate approvals on chemicals at each facility as opposed to one-time universal approvals to minimize non-compliance risks. Incorporate regulatory compliance considerations into product development. Screen SDSs before substances are brought in for product development. Consider internal trainings emphasizing frequent developer interactions with regulatory departments. Promote collaboration between Environmental Health and Safety (EHS), procurement, and regulatory departments handling environmental compliance.
Other Compliance Strategies	 For compliance review and assurance, conduct targeted review of product information if a SNAc is published that clearly relates to a company's major business line. For companies handling mixtures, prioritize compliance checks on larger volume mixtures due to regulatory thresholds. Provide stakeholder notification forms to government (in response to information gathering surveys for DSL substances) when a relevant sector or company is involved with a chemical, even below the reporting threshold, to enable targeted outreach in advance of SNAc issuance.

Table 4. Canada Roundtable Summary – Suggestions for Government Support.

Suggestions for Government Support		
Streamlining & Clarifying Requirements	 Clarify the communication expectations for upstream suppliers in a targeted means specific to the SNAc to alleviate uncertainty for downstream users. Ensure that downstream notifications are not required beyond the end product phase or the point at which the communication is no longer valuable to avoid creating a competitive disadvantage. Clarify compliance requirements for downstream users who do not know how a chemical subject to a SNAc that is present in a purchased product was used in its formulation. Consider publishing an advisory note on functional groups associated with new substances of concern, similar to U.S. EPA's chemical categories, as an early warning to companies. Identify discrete CAS numbers to the greatest extent possible in SNAcs and other RM tools to improve compliance efficiency. 	
Inter-Agency Collaboration	 Improve government communication and coordination internally, within respective agencies and between agencies, as a means to improving external communication. For example, work with Industry Canada to enhance compliance promotion with international suppliers. 	

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http://ec.gc.ca/lcpe-cepa/default.asp?lang=En&n=9EFCCB36-1
 http://www.ec.gc.ca/subsnouvelles-newsubs/default.asp?lang=En&n=0F76206A-1

- In an FAQ or other educational materials, provide recommendations on means by which suppliers can notify downstream customers, including case studies and best practices collected from industry.
- Support information gathering and sharing on the potential uses of chemicals subject to SNAc provisions, especially to parts of the supply chain lacking that expertise.
- Expand dialogues with various sector leads related to SNAcs and other risk management actions. Proactively engage the regulated community to promote coordination, planning, and understanding in advance of SNAcs. Share Section 71 survey information with sectors implicated to increase understanding and awareness of potential RM actions, as is being done with the forest sector.
- Ensure that broadened communication on SNAcs focuses on users in addition to suppliers.
- Develop educational materials to accompany a SNAc publication.
- Broaden stakeholder outreach beyond the compliant community to groups who may not be aware that they are subject to SNAc requirements under CEPA 1999. Work with trade associations to assist with this outreach, but conduct outreach beyond trade associations, which may only represent small percentages of a sector.
- Expand outreach across regulatory jurisdictions and across borders similar to efforts undertaken with respect to consumer products safety and emissions. Consider training sessions abroad and webinars hosted for international audiences.
- Continue successful education initiatives and those underway such as explanatory notes, plain language summaries, and searchable SNAc table.
- Make key tools and resources on the SNAc webpage immediately obvious to unfamiliar users.
- In government/industry collaboration during SNAc development, leverage the opportunity to drive home reporting obligations. Beyond the existing explanatory text consider additional language in the SNAc itself and on the webpage.
- To reduce misperceptions, as part of education and outreach, develop messaging that highlights a SNAc as an indication that the government has determined certain uses are safe and may proceed, and as an information gathering tool for other uses.

4 Comparative Discussion and Analysis

In comparing the takeaways from the two roundtable discussions, a number of important similarities and key differences become apparent.

Stakeholders in both the U.S. and Canada are experiencing communication challenges at various points in the value chain. Importers and distributors in both countries are challenged by foreign suppliers who lack an understanding of SNUR/SNAc regulations. At each roundtable, participants identified particular points in the supply chain where expectations and requirements can be clarified by the respective regulatory agencies, or harmonized between the two agencies, to improve supply chain understanding and compliance. For instance, both groups of stakeholders requested more guidance on downstream notification best practices and recommendations for language to include in notifications. Key themes that were echoed at both roundtables, include:

- Challenges with chemical identification;
- Negative perceptions and avoidance of SNAc/SNUR chemicals in the supply chain;
- The need for collaboration across EHS and procurement departments as well as across regulating agencies; and
- The need to manage CBI in creative ways through NDAs, third parties, or otherwise.

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Outreach & Education

Key differences included stakeholders' reliance on the SDS, which seemed to be prioritized as the preferred communication mechanism more so in the U.S. than in Canada. U.S. resources such as ChemView and EPA's chemical categories list were highlighted as very useful tools, and efforts are underway or were suggested to provide similar tools in Canada. The U.S. discussion emphasized challenges peculiar to articles and article retailers, given that some SNURs waive the article exemption, whereas in Canada, much more discussion occurred around import-specific challenges and best practices as SNAcs do not currently address chemical and material content in manufactured items (articles). Supply chain data management tools used for chemical tracking and regulatory management seemed to be more prevalent and advanced in the U.S., though the need for better systems to address SNUR/SNAcs specifically was identified in both discussions.

An overarching, and essential, takeaway of each discussion was the need for improved outreach and education, ranging from the basics of the SNUR/SNAc programs to the specific requirements for various stakeholders. Both general and targeted (sector-specific and SNUR/SNAc-specific) outreach was called for by U.S. and Canada participants. Furthermore, both groups emphasized the need for outreach and education to uninformed stakeholder groups, such as the companies not represented at the roundtables, foreign suppliers, and small, harder-to-access companies in the U.S. and in Canada that may not have trade associations to support their compliance, may not have compliance programs at all, and may not be aware that they are subject to TSCA or CEPA 1999 requirements. By identifying and educating as many less-informed stakeholders as possible, the whole supply chain communication process is improved, the burden is reduced on the already-compliant community, and the playing field is leveled.

Suggestions were offered at both roundtables for educational materials and forums that could ease compliance challenges by improving understanding to various stakeholder groups. These included easy-to-understand, plain language summaries; educational primers; improved online tools; webinars; FAQs; and discussion forums. Some tools are more general, but many would also benefit from being tailored to particular audiences and industry sectors. It was suggested that many of the efforts could be undertaken in collaboration between the U.S. and Canada to widen the audience and leverage resources, networks, and knowledge in each country for a stronger joint message to the global supply chain. These and other opportunities for the U.S. and Canada to collaborate are detailed in the table below.

Table 5. Recommendations for U.S./Canada Cooperation.

Recommendations for U.S./Canada Cooperation

- Collaborate on education and outreach to capture the attention of a broad audience of stakeholders in the U.S., Canada, and internationally.
- Continue to identify and convene stakeholders from both countries together to further share information on challenges, best practices, and solutions.
- Examine and clarify SNUR/SNAc notification requirements pertaining to export and re-import of goods across borders.
- For the U.S., consider adopting the more targeted approach that Canada has taken with SNAcs for identifying particular areas and sectors of concern to increase compliance efficiencies.
- For Canada, consider requiring downstream notifications for all SNAcs, as the U.S. has done with SNURs, while maintaining compliance flexibility, in order to ensure information is passed through the supply chain.

- Develop a common glossary for the U.S. and Canadian regulatory programs to standardize terms across borders, level the playing field, and improve understanding of programs broadly.
- Consider agreeing upon common expectations for downstream communication processes for SNAcs
 and SNURs in a manner that maintains flexibility. Jointly developing and sharing common best
 practices with stakeholders in both countries would be one approach.
- Develop shared educational primer to present the basics on SNAcs and SNURs in plain language and make this available publicly on both U.S. and Canadian websites.
- Collaborate on messaging SNAcs and SNURs as information gathering tools to reduce the pervasive negative perceptions present throughout the supply chain.
- Consider sending U.S. representatives to proposed joint EC/HC sector workshops or other information sharing sessions in Canada, and vice versa if similar workshops or other forums are hosted in the U.S.
- Develop bi-national and international webinars and FAQs to reach audiences across borders and uninformed foreign suppliers in particular.

5 Conclusion

The roundtable discussions held in the U.S. and Canada, convened as part of the RCC's efforts to compare and harmonize SNUR and SNAc programs, offered a robust exchange of information regarding best practices, existing compliance barriers, and ideas for facilitating compliance promotion and efficiency. The discussions identified numerous opportunities for regulators and stakeholders to pursue and collaborate on, including:

- Industry cross-sector information exchanges to facilitate efficiency in supply chain data management and communication solutions;
- Collaboration across environment, health and safety, and procurement silos within companies and between government agencies; and
- Chemical tracking and regulatory monitoring systems, practices, and tools to improve compliance efficiency.

The majority of opportunities identified focused on methods by which both the government and industry can work to better educate and inform stakeholders throughout the supply chain on their compliance requirements and the best practices for meeting those requirements under the SNUR and SNAc programs. It was suggested that many of the efforts could be undertaken in collaboration between the U.S. and Canada to widen the audience and leverage resources, networks, and knowledge in each country for a stronger joint message to the global supply chain. Comprehensive proceedings from each roundtable, including the agenda, participant list, case study presentations, and discussions, are available as appendices.

Appendix A Roundtable Proceeding

A.1 U.S. Roundtable Proceedings

A.1.1 Opening Remarks and Introductions

Marianne Horinko, President of The Horinko Group commenced the roundtable with introductory remarks and thanks to all participants. Ms. Horinko then introduced Maria Doa, Director, Chemical Control Division, Office of Pollution Prevention and Toxics, Office of Chemical Safety & Pollution Prevention, U.S. EPA who described the contextual background and goals for the roundtable discussions.

A.1.2 Case Study Presentations

Amy Lilly, Senior Environmental Regulatory Engineer, Hyundai Kia presented on the International Material Data System (IMDS),⁴ the auto industry's tool for tracking chemicals in their global supply chain. IMDS was developed in response to automotive industry-specific chemical regulations passed in Europe in 2000, known as the End of Life Vehicles (ELV) Directive. This had phase outs for heavy metals and mandatory recycling percentage targets, causing auto manufacturers to realize the need to gather information from their supply chains. Numerous other regulatory activities around the world addressing chemicals also impact the automotive industry, including those in Europe, the U.S., Canada, China, Japan, India, and the global Stockholm Convention.

As the ELV Directive went into effect, the original equipment manufacturers (OEMs) were sending paper surveys to suppliers to collect information on 3,000+ vehicle components through 17+ tiers of the supply chain. This was burdensome for both the OEMs and the suppliers. In 1999, a group of 7 OEMs decided to develop a standardized, web-based data collection tool in collaboration with EDS (now Hewlett Packard Enterprise). This effort, funded by the OEMs, would eventually become the IMDS and include over 45 OEMs, almost all of the major auto companies in the world.⁵

As part of IMDS, a list of declarable substances was also developed. This list, the Global Automotive Declarable Substance List (GADSL), is based on substances expected in an automobile at point of sale (i.e., excluding process chemicals) that are regulated, or likely to be regulated. Publicly available plans from EPA and other regulatory agencies help with forecasting the chemicals that might be added to GADSL. Suppliers are required to enter all substance and material content information for their component into the IMDS account of their customer. They are able to report some as pseudo substances (e.g., ABS, ceramics) and can put up to 10% (by weight total) of the non-GADSL material content in "jokers" or "wildcards" to protect proprietary information. However, all GADSL substances must be reported if present at the specific threshold level, which is 0.1% as a default or is based on the lowest level required by regulation or scientific evaluation. There are mechanisms at the bottom-level of the supply chain

⁴ www.mdsystem.com

⁵ The list of OEM's includes Tesla as of 2015

to flag if a substance reported in wildcard form gets added to GADSL, and messages are sent to consumers up the supply chain if this happens.

IMDS standardizes how this information is communicated through the current seven or so tiers of the automotive supply chain. Each supplier enters the substance information into IMDS using CAS numbers, and that data goes into the secure databases of all of their customers. The information passes in that manner from the raw material supplier, through the various tiers of the supply chain, to the OEM. Suppliers are required to update IMDS if the composition of their product changes. As information is passed downstream, suppliers have the ability to verify that information all the way through the supply chain. A committee of OEMs and suppliers focus on upcoming regulations and revise the GADSL list once or twice a year. Each time the GADSL list evolves, suppliers have to re-report on materials. This is a time intensive process, starting from the raw material suppliers and rolling up the supply chain, but ultimately the system is effective.

There are ongoing efforts to update and improve IMDS. Among these is an effort to simplify naming and reporting for small electronic components, such as circuit boards. Methods to incorporate process chemicals into IMDS are also being considered. IMDS is updated yearly, and the next round of updates will focus on improving supply chain confidentiality, data accuracy and quality, as well as investigating faster methods of updates for new regulations. Requests on suppliers from other industries are also being considered in IMDS discussions as suppliers look to satisfy various customers at the same time.

Some lessons and challenges have been identified through the IMDS and GADSL evolution. The well-established process now provides a consistent means of reporting across the industry and reduces costs by harmonizing rules for various chemical regulatory regimes. There was a significant investment, over 40 million euros, by the OEMs to establish and upgrade the system to where it is today. It also took five to ten years to reach a point where data quality was sufficiently reliable, although data quality and accuracy are an ongoing challenge, especially for lower tier suppliers who don't have expertise in chemistry or toxicology. Confidentiality must be maintained so information from IMDS cannot be shared even if requested. The system only applies to existing regulations and is not forward-looking. If a material is not regulated, or pending regulation, and thus not on the GADSL list, there is not an easy way to know if it is in the supply chain. Discussions on how to expand it to include forecasted substances are ongoing.

With respect to SNURs and SNAcs it was noted that IMDS can only be searched based on CAS numbers, which aren't always provided in the SNUR/SNAc regulations. When CAS numbers are not available, surveys must be sent out to suppliers to determine if specific chemicals are present in a material or component. Even if the substance is in IMDS and a CAS number is available, conducting a search via IMDS can take up to six months. Since chemicals are only reported in IMDS if they are above the 0.1% weight threshold, for SNAcs or SNURs on chemicals present at any level, IMDS would not be useful to indicate whether the chemical exists in the supply chain. For comment periods on new regulations, the allowed timeframe is often too short to enable an investigation to determine whether or not the chemical is in use. Replacement parts also pose a challenge where chemical regulations of all sorts come in long after the part is manufactured and simply recreating that part using a new chemical is often not an option.

Jim Cooper, Senior Petrochemical Advisor, American Fuel and Petrochemical

Manufacturers presented next on the petrochemical manufacturer industry and their experience with the SNUR and SNAc programs. Petrochemicals are derived from crude oil and natural gas and are common building blocks to make chemicals, plastics, and other products. They are reactive and organic, with carbon and hydrogen as the key atoms. The vast majority of commercial organic chemicals come from six base petrochemicals. Ethylene is the highest volume organic chemical in the world and affects 96% of manufacturing supply chains. Manufacturing petrochemicals requires significant amounts of heat energy to break apart molecules from feedstocks such as naphtha and ethane and form new molecules.

Petrochemical manufacturing is considered a downstream activity with respect to oil and gas production, however it is upstream with the respect to the rest of the manufacturing supply chain. Petrochemicals are used to make polymer plastics or "derivatives." These are often sold as commodities on exchanges like the New York Mercantile Exchange and from there are manufactured into advanced plastics or specialty chemicals.

Tracking commodities through networks of distribution, repackaging, and exchanges is incredibly complex. Specialty chemicals are somewhat simpler to track than bulk chemicals, as uses are more specific. As chemicals move through the supply chain, information is shared through general product literature (e.g., product brochures and technical bulletins), safety data sheets (SDS), toxicity study and risk assessment summaries, and product consortia (e.g., mutual aid programs, product panels/groups). Chemical manufactures put a lot of information into their SDS, and the hazard and testing information is often well described within these. The challenge for this industry is to determine with whom the information needs to be shared, as products can move to so many different manufacturing streams through various distributors. Distributors represent a key stakeholder in the success of chemical information sharing throughout the supply chain.

Formulators and processors are the suppliers likely to best know the composition of products, but there are competitive reasons that information is tough to share. Formulators and processors must be involved and CBI must be protected for SNURs to be properly communicated. Chemical manufacturers tend to be very conscientious about informing their customers about the legal requirements of SNURs and do their best to ensure that their customers are in compliance. It is more difficult to verify this in the complex network of commodity trading where companies don't necessarily know where their chemicals end up.

Mark Duvall, Principal, Beveridge & Diamond next shared a legal perspective on communicating SNUR and SNAc information downstream as well as practical considerations and strategies from the regulated community.

Companies who are manufacturers, processors, or potential manufacturers or processors of a chemical that has a SNUR can choose to avoid using the chemical altogether or to deal with it in a compliant manner. The regulatory requirements in order to comply are: 1) do not engage in the significant new use of the chemical after the effective date of the SNUR without submitting a SNUN, 2) if manufacturing or processing and distributing a SNUR chemical, notify the customer, regardless of whether or not the company engages in the significant new use, and 3)

notify EPA if you learn that a customer is engaging in a significant new use without notifying EPA.

For processers (not manufacturers) who are not informed that the chemical they are processing has a SNUR, and who do not know the chemical's identity, they are not obligated to comply with SNUR obligations. If they do have a CAS number or Premanufacture Notice (PMN) number, they must check to see if it has a SNUR. This can be problematic as some SNURs have CAS numbers and others have PMN numbers.

Many companies do not clearly understand the downstream reporting requirement of the SNUR regulation. Though not required by regulation, SDS Section 15 is an appropriate place to include SNUR notification information. Many companies take advantage of this and use it to disclose SNUR chemicals, but some may not have the sophistication to do so.

Companies will ideally have a master database identifying all chemicals in purchased or manufactured products by CAS number, or an alternative identifier, that may be cross referenced with regulatory lists to inform purchasing decisions for products containing listed chemicals. SAP is an enterprise software tool that enables companies to put a stop on purchasing orders, unless manually overridden, for products containing chemicals of a particular CAS number. The 12(b) list is a periodically updated list of CAS or PMN numbers for SNURed chemicals.⁶ PMN numbers are used when chemicals are confidential. In those cases the SDS would not disclose the chemical identity or the CAS number. It might disclose the PMN number, but this is not required by regulation, which may create challenges in confirming chemical identity.

Almost every SNUR has a CAS or PMN number associated with it, though there is one chemical *category* SNUR that does not identify associated CAS numbers: Nitrites of Alkali Metals (Group IA elements). For those in the regulated community without a technical chemical background, the ability to understand and comply with this SNUR would be improved by the availability of a CAS number for representative member of the category.

Companies have three response options for SNURs. The first option is to attempt to avoid purchasing or manufacturing any products with SNUR chemicals due to negative perceptions and the compliance burden. Avoiding the purchase of SNUR chemicals requires improved communication with suppliers and has bolstered a trend of companies collecting information from upstream suppliers on the chemicals in the products they are selling, as shown in the auto industry case study. The electronics sector has also some success with information gathering on specific chemicals in their products. These sectors, however, are characterized by a limited number of global companies with a tremendous amount of purchasing power, which is necessary to get suppliers to provide information beyond what is legally required. In other sectors, purchasing power over suppliers may diminish significantly as you move upstream in the supply chain, posing an information collection challenge.

An information-gathering platform used for heavy equipment and electronics companies known as BOMcheck is emerging as means to gather information from suppliers. Devised and managed

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⁶ It was clarified in the discussion that there is a section 12(b) list published by EPA that contains the chemical name, the CAS number if available, the accession number, the section by which it is subject to 12(b), which will be updated regularly and made available in ChemView in the near future.

by ENVIRON, BOMcheck primarily has an EU regulation focus. It is a list driven disclosure, not a system to collect full product composition. The list of declarable substances aggregates the lists from various regulations including SVHCs, REACH, RoHS2, the battery directive, and others, and only includes chemicals likely to be present in the equipment and electronics for which BOMcheck is designed. The list does not explicitly include SNURs (beyond those subject to other regulations), and though it is adaptable, it was not designed for managing the 1900+ SNUR chemicals.

The way reporting through BOMcheck works is that suppliers, manufacturers, and "super users" sign up. The manufacturer (mainly assemblers) then identifies its suppliers to ENVIRON and receives from ENVIRON the information that the suppliers have reported. The suppliers also identify to ENVIRON the customers to whom they want their information submitted. The supplier reports on the declarable substances present in its products, subject to the relevant thresholds. Suppliers must update their declaration every time the list changes if the chemicals added are present in their products. There is a confidentiality protection, but it does not extend to the customers that have been authorized as information recipients.

To provide information as a supplier to BOMcheck there is an annual a fee of 300 euros. For small manufacturers this is waived, but many BOMcheck participants have had a hard time getting suppliers, especially U.S. suppliers, to participate because of the EU focus.

A company's ability to identify SNURs and keep them out of its supply chain depends on its role in the supply chain, its purchasing power, and the complexity of its supply chain. In a globalized supply chain where foreign suppliers are not subject to U.S. regulations, sometimes the only tool for information gathering is commercial pressure. The company must have adequate market share to make the threat of lost business meaningful, however.

The second response option, an alternative to excluding chemicals subject to a SNUR is for a company to ensure it does do not engage in the significant new use by implementing work practices. The ease with which a company can do this depends on the new use and varies by SNUR. SAP is a helpful tool here as well.

The third option is to submit a SNUN. This is an infrequently used practice, with an average of only 6.5 SNUNs submitted per year. Often there is reticence to submitting a SNUN because of the perception that if a company does, its inviting regulation down the road. Therefore, the option of submitting a SNUN is not very meaningful in the real world. The regulation is literally and legally a paperwork requirement, but practically is a ban on using the chemical or a ban on engaging in the significant new use since the option of submitting SNUN is perceived as impractical.

Regardless of whether or not a company engages in a significant new use, if its product contains a SNUR chemical, the obligation to notify the customer exists. Chemical companies often do this by putting SNUR information on the SDS. For a handful of SNUR chemicals, EPA has waived the articles exemption, requiring downstream notification for SNURs in articles. Since articles are exempt from OSHA's SDS requirements, the SDS is not a mechanism available for passing along information on chemicals in articles. BOMcheck may be the best generalized solution at present, but it is still in its early years of development and is limited to electronics and heavy

equipment. As a number of proposed SNURs would also waive the articles exemption, there is pressing need to further develop these communications mechanisms.

A.1.3 Moderated Discussion

PART 1 – Supply chain processes: What are best practices for tracking chemicals in the supply chain?

Perspectives Shared:

Chemical Identification –

- Participants discussed challenges with discrepancies in chemical identification in regulations versus in various industry tracking systems. For instance, it is very difficult for a member of the auto industry to determine if a chemical is present in its supply chain without having a CAS number to search on. Others suggested that including accession numbers in addition to the PMN numbers for confidential chemical SNURs would be helpful. For article manufacturers, retailers, or small suppliers who do not have chemists on staff, unique and simple identifiers such as CAS numbers are especially important.
- Participants discussed the process for amending SNUR chemicals that were listed
 historically by PMN numbers but that now have CAS numbers available. EPA has
 conducted such updates in the past but in some cases, where the chemical is no longer CBI,
 the original PMN submitter must waive the confidentiality, so tracking down the company
 may pose difficulties.
- The **perfluoro SNUR uses formulas** in part because the article exemption has been lifted and the SNUR needs to be able to apply to these chemicals as they are incorporated into various products and uses. Specifying a CAS number in the regulation is not comprehensive enough for this. The supplier however can still specify a CAS number or other chemical identifier and demonstrate that it is part of the category regulated under the SNUR.

Data Collection and Costs Relationship -

• The costs associated with collecting data through the supply chain were discussed. In the auto industry, the OEM's bear the majority of the costs associated with setting up, operating, and maintaining IMDS. The lowest tier suppliers also bear significant costs, but overall, the system leads to **cost efficiencies and reduced burden through the supply chain**. For industries without these sector-wide data systems, and for the federal government, when data is not contractually required it bears an additional cost. However, if disclosure of information is either a prerequisite to doing business (e.g., contractual procurement requirement) or is requested by a company with significant market leverage (e.g., Walmart), there is likely little to no cost to that company for requiring the information.

Distributors and Information Sharing -

• Participants discussed how **SNUR information is passed through large distributors at the commodity level**, often seen as a challenging step in supply chain communication. The

common mechanism used is to include SNUR information within Section 15 of the SDS, which is passed along with the product to the distributor and so on down the supply chain. It was noted that distributors may even tend to over-communicate information associated with chemicals due to risk aversion, resulting in information-overload and declining effectiveness of the information shared.

Role of Safety Data Sheets –

- EPA and OSHA need to explore **how the agencies could promote identification of SNUR requirements in SDSs**, as some companies do report information on Section 15 while others exploit the voluntary nature of that section and leave out information needed by the next supplier in the chain. With OSHA jurisdiction over the SDS and EPA regulating SNURs, participants encouraged two agencies to explore how they could most effectively advance their joint objectives through an MOU or similar agreement.
- Another disconnect identified between OSHA and EPA requirements is that a substance may have a **TSCA Class 2** identity which has a whole variety of ingredients, but the SDS may only list a couple of those as required by OSHA and include a CAS number that is different than the legal TSCA number for the substance.
- Most suppliers think that the SDS is the definitive chemical document without understanding that OSHA thresholds dictate the requirements of the SDS.
- One best practice shared was to work with the U.S. branch of the supplying company or a U.S. representative to obtain a U.S. SDS when importing materials from a foreign supplier, in cases where one exists.

Cross-Division Coordination -

 Within businesses, there may be silos as the health and safety, environmental compliance, and procurement departments all operate separately without adequate crossover and collaboration. The extent of a company's chemical inventory system is usually driven by OSHA requirements, so without those linkages, environmental concerns may not be integrated into health and safety driven systems.

SNUR Reporting Requirements-

- Participants suggested adding a threshold of regulation to SNURs –whether a concentration, hazard, or exposure to be avoided—in order to eliminate the SNUR reporting requirement when it is no longer necessary. For instance, if there is a SNUR for something that requires personal protective equipment during processing, the SNUR information still must be passed along to the downstream user even if the substance is being blended into paint. Some SNURs are written in such a way that, once the level or concentration is low enough, the reporting requirements no longer exist, but others are not.
- When a **SNUR** is proposed, the § 12(b) downstream notification requirement is triggered. This requirement is hard for companies to grasp and hard for them to find, as the SNUR is only in the Federal Register, not in the Code of Federal Regulations (CFR). For historic

SNURs that are proposed but never finalized, this uncertainty is even more challenging.

Negative Perceptions -

- The negative perceptions related to SNURs pose a major challenge. Customers tend to avoid products with SNUR chemicals in them due to uncertainty about how to comply, or to avoid the documentation requirements, the associated regulatory stigma, or the slowdown in timeline or costs that might be associated with the requirements. Some participants find that if a product has a SNUR chemical in it, it will simply not sell. The fact that SNURs are becoming more commonplace is mitigating this stigma to an extent.
- There may be a need and an opportunity for EPA to package and message SNURs in a
 different way during its outreach and stakeholder education. EPA can message SNURs as a
 means to begin addressing information sharing and disclosure through the supply chain, a
 necessity and an advantage for companies in light of numerous regulatory and non-regulatory
 drivers.
- Even if a new chemical is environmentally preferable to an existing chemical, if subject to a SNUR, the greener chemical may be disadvantaged in the marketplace simply because of the regulatory stigma and reporting requirements.

Chemical Tracking Systems & Practices –

- Federal agencies, such as DoD and NASA, with large and complex supply chains are further behind in supply chain communication and transparency, and various companies and sectors are at different points with respect to developing systems to better understand their supply chains and the chemical and material content of their products. Everyone is committed and interested in learning as quickly as possible from everyone else, but there is a tremendous variation in the sophistication of systems to deal with these challenges.
- When a chemical is subject to a SNUR or is included in the EPA chemical Action Plans or list of Work Plan chemicals, there is automatic market pressure against its use. If it is a critical chemical, this market pressure can be a big problem, especially for chemicals in products acquired by DoD and NASA that have very unique specifications. DoD has an ad hoc survey procedure to track down problematic chemicals in its supply chain to determine any consequences of substitution under such market pressure. This procedure is burdensome and can only be used for high priority chemicals.
- One company's best practices include investing substantial **time and resources**, including 30 staff members (some of them professional chemists), in tracking chemicals and **recognizing limitations in the supply chain**. Knowing that their tier one suppliers do not have the necessary information or expertise, the company will work to track down information itself.

SNUR Downstream Notifications -

• Currently the **information included in downstream notifications varies** greatly across different suppliers. Most SNUR notifications included in the SDS Section 15 are limited to the CFR citation and may include a narrow description. Some companies, recognizing that a

- SNUR is a competitive disadvantage, will do outreach to their customers explaining the meaning and requirements of SNURs. This best practice is relatively rare in the marketplace.
- SNUR requirements are all described by reference, making it challenging for less sophisticated recipient of an SDS with a SNUR notification to understand their requirements. A best practice therefore is for a supplier to make the essential compliance information clear and available to the customer in some sort of technical data sheet in addition to the SDS. In a case where a SNUR chemical represents a comparative disadvantage, there is a commercial incentive to ensure that your customer can easily understand the requirements and avoid noncompliance.

Monitoring Changes in Chemical Regulations -

- EPA's **chemical categories list**, available in ChemView, was identified as a highly useful resource for companies to determine what might be regulated under a SNUR or generally anticipating problematic chemicals. The categories and the associated concerns are also elaborated in a document on the OPPT website.
- A number of **subscription-based tools** (e.g., Ariel, LOLI, CHEMLIST, RightAnswer, BOMcheck) compile chemical regulatory lists of various kinds. If a processor or manufacturer has product chemistry in a database searchable by term, an automatic check against such a list could be done regularly to keep up with changes in regulatory lists. The costs may be prohibitive for small companies, and as a result, many don't subscribe.
- Participants discussed methods by which supply chain information is reviewed and updated to keep up with changing regulations. One such method is through an SDS update. An update might be triggered by new OSHA hazard classification requirements, but OSHA does not specify a mandated period for SDS review or require employers to update the SDS for changes relevant to Section 15. Companies might even avoid putting information in Section 15 so as not to trigger regular reviews and updates. In a best-case scenario, if a chemical in a supplier's product became subject to a SNUR, it would update its SDS and notice of this would trigger updates through the supply chain. This is not necessarily a routine practice, however. The discrepancy in the requirements from OSHA and EPA creates uncertainty for the regulated community, many of whom don't realize that an SDS may not be a complete inventory of the requirements associated with a chemical. This is another issue that could potentially be improved upon and clarified through an EPA/OSHA MOU.
- An ideal chemical tracking system would be one where a **change in a regulatory list would trigger a notification** to the company's product stewardship team if that newly regulated chemical were present in a product. An existing database, EPA's Substance Registry Services (SRS), identifies public SNUR chemicals, and a notification system could be built using the SRS database.

Requesting Data from Suppliers –

• In response to various regulations, corporate sustainability programs, and NGO and consumer pressure, one product manufacturer has made an effort to get away from CAS numbers and move toward **universal declarations on chemical categories**. For instance, due to sustainability programs many of the manufacturer's customers would like to know

- whether perfluorinated chemicals are present in its products. To gather this information, the company will ask its suppliers whether or not their components have perfluorinated chemicals. By asking for a "yes or no" declaration, they have been much more successful than in asking for full chemical disclosure or specific CAS numbers. This type of supplier polling is, however, very labor intensive and is only used for select chemicals.
- One company shared that, for its reportable substance list used for general information gathering, and they have learned to **tailor the request to individual suppliers**, as some wish to input CAS numbers while others prefer declaration based approaches. If a supplier has a very good handle on their chemistry, no matter what substances or what format information is asked for in, the supplier will simply input all of their chemical information. For categories of compounds such as lead, mercury, and cadmium that each may contain thousands of chemicals, the system would not only be programmed to search on all the related CAS number but also search the text field for "lead."
- Participants discussed **collecting information from varying tiers of the supply chain**. Often, the target tier will depend on the concerns, needs, and limitations (e.g., time and resources) of the downstream consumer. One company shared their strategy of starting data collection at tier II and III supplier levels, bypassing those closer tier I suppliers, but giving the conclusions to those closer suppliers along with the responsibility that they need to stay on top of changes. This requires suppliers to disclose information about their suppliers, so the tactic is only with suppliers where leverage is good. The company almost always **tailors its information gathering approaches** to the market factors, leverage, supplier preferences and sophistication, and the specific driver they are responding to, regulatory, sustainability mandates/goals, or customer pressure. They have also learned to **distill requests on their suppliers down to the simplest element** possible in order to get a response.
- One trade association conducted a **pilot on a portal system** to collect information and assess it against various hazard and risk protocols. In the pilot, suppliers were given three levels of disclosure to choose from, ranging from showing everything (i.e., chemical, function, concentration) to showing nothing (i.e., ingredient 1, no function, no concentration). Given this choice, suppliers predominantly chose to disclose nothing. Since this pilot showed that mandates are necessary for material disclosure, the trade association will likely mandate SNUR disclosure, since it is a regulatory requirement. The requirement helps downstream consumers, like article manufacturers, collect this information without having to exercise undue pressure on their suppliers.
- One company uses raw material information forms that ask for information pertaining to
 composition and regulatory status, including TSCA regulatory requirements. Furthermore,
 the company checks the SDS for every raw material it handles, and if the SDS does not
 disclose 100% composition, the company talks to the vendor to identify the rest of the
 materials or to ensure there are no other unintentionally added materials.

Role of Procurement Contracts -

• One technique used to gather SNUR information is to **build disclosure requirements into purchase orders or contracts**. Some contracts have provisions that include TSCA Inventory requirements, and a few companies currently reference SNURs in contracts. This approach gives a company a contractual remedy against their supplier. This would likely require a non-

- disclosure agreement (NDA), which companies often hesitate to enter into because of the associated responsibility.
- SNUR declarations need to be done on an ongoing basis; however so, requiring them contractually would necessitate an **evergreen** (i.e., auto renewal) contract, which is not desirable. Additionally, for purchase orders, which apply to individual shipments, there would be no ongoing agreement. In most some cases, a purchaser would want to discover the chemical information about a product before reaching a contractual agreement, so the purchaser would need to make the potential supplier aware, early on, of the intent to impose this requirement in the contract.

Role of NDA -

The use of NDAs was described as a best practice to getting more complete material
disclosure. Some NDAs might even specify that only one person in the company will be
looking at the information. This has enabled progress on getting suppliers to disclose
contents. Some participants have found that NDAs also need to be tailored to supplier
preferences.

Role of Corporate Sustainability Initiatives -

- The office furniture sector has a hub in Grand Rapids, MI, which has facilitated intraindustry cooperation. In 2008, the sector published an ANSI-approved product sustainability
 standard that the industry wrote, a voluntary standard that gives companies all sorts of credits
 to earn and certifications to strive for, which they compete to achieve. Many of these are
 related to chemical disclosure and assessing chemicals against various criteria. The office
 furniture industry continues to explore whether they could replicate a system like the auto
 industry's. The main **driver for the furniture industry in seeking full material disclosure**is sustainability, not regulation, and because of that, the competitive advantage associated
 with such information becomes a barrier to establishing such a system.
- One company has prioritized data gathering for high-risk areas from a regulatory perspective and high-interest areas from a sustainability perspective, which overlap at times. As an example, following a **corporate sustainability mandate** against halogenated flame retardants (FRs), the company identified all materials containing those chemicals and identified suppliers of products containing halogenated FRs. Around the same time the California standard on flammability changed so that it could be met without using FRs. The company worked with its suppliers to get rid of halogenated FRs and then FRs all together. The shift was **complementary with supplier business decisions** since removing FRs was a cost saving.

PART 2 – Supply chain communication and complying with SNURs and SNAcs: What can regulators do to help support downstream notification? What can industry do? What are particular challenges for importers?

Perspectives Shared:

Challenges and Solutions for Importers –

• For companies with foreign suppliers who are not subject to SNUR reporting requirements, uncovering whether or not there is a SNUR chemical in an imported product might pose a challenge. **Importers have to work directly with their suppliers** to explain foreign requirements and work on practical ways to get information on specific chemicals. In the absence of a broad international disclosure system, all such efforts will have to be individual. A processor receiving an imported chemical could qualify under the safe harbor protection if it didn't know whether it had a SNUR chemical because an upstream entity hadn't told it.. This exemption only applies for processers, however – and anyone importing a chemical is by definition a "manufacturer," not a processor.

Waiving the Article Exemption –

- From the **retailer perspective**, there is a high level of interest in SNURs, but a low level of understanding, and few compliance mechanisms to obtain information from foreign suppliers. Retailers who import are considered "manufacturers" for TSCA purposes, but are generally not well situated to deal with that. For instance, a company importing a sofa subject to the HBCD SNUR, which waives the article exemption for consumer textiles, may not realize their requirements for SNURs, and are not likely to have staff devoted to tracking and ensuring compliance with such requirements.
- There is a general need to **inform companies that deal with articles** containing SNUR chemicals that waive the article exemption that these requirements may apply to them. Trade associations, which serve as the watchdogs for companies, would be a place to start with this outreach, but EPA could also do a better job.
- It was suggested that EPA **clarification on the notification requirements** for manufacturers and processors of SNUR chemicals that waive the article exemption (like HBCD) would be useful. In particular, clarification is needed on the requirement to notify downstream even when products are not going into the articles relevant to the new use (consumer textiles in the HBCD case). If this is a requirement, article manufacturers and assemblers or processors have a regulatory obligation that no one is telling them about. Since article manufacturers don't supply SDSs for the ingredients in their products, notification is problematic.
- A related discussion occurred around **how processing is defined** at the article level, and whether it includes manufacturing and assembly when the article exemption is waived for a SNUR. It was clarified that once a chemical reacts and is no longer present as that chemical, it is no longer subject to the SNUR. It may continue to be processed, but it is outside the scope of the SNUR at that point. With respect to **recycling**, if the chemical is no longer serving the function for which it was used in the original part, then it is an impurity, but if the chemical continues to serve its original intended function after it is recycled, then it is subject to the original regulation.

Outreach and Education -

• The lack of full participation and compliance with downstream notification throughout the supply chain was identified as a problem. Given that the SNUR notification requirement was originally adopted in the 1980's and hasn't been used or discussed for a generation of

- regulatory managers, **basic education and outreach** by EPA would go a long way towards bringing the lagging parts of the supply chain up to speed on their obligations.
- EPA can improve upon its stakeholder **outreach and follow up prior to and after new chemical SNURs are implemented** to ensure that the regulated community is complying in the way EPA intended. For SNURs on existing chemicals, this outreach is fairly robust. For new chemical SNURs, notification and guidance could be improved. Since the chemicals are not yet on the market and are often confidential, this communication is much more difficult. Regulated entities can be proactive in their approach by using the **SNUR chemical summary sheet** that EPA has made available through ChemView. Some modifications to this resource to spell out requirements in plain language might also be a useful step for EPA in aiding the regulated community. To this end, it was even suggested that use of plain language in the SNUR regulation itself could provide further clarity and understanding for the regulated community.
- Environment Canada hosted a successful webinar training on their programs. Since SNURs
 are becoming more mainstream and the requirements apply to many companies who may not
 know of such regulations or even consider themselves a part of a chemical supply chain,
 background education from EPA in a webinar format would be helpful and could be
 appropriately tailored to different audiences.
- If a manufacturer has knowledge that its customer is not using a chemical in compliance with SNUR, they are obligated to notify EPA and the recipient. With that obligation on the supplier, it would be helpful for EPA to provide **guidance on the language to be included** in the SNUR notification so the recipient could clearly and easily understand what the restrictions were for the chemical, particularly for confidential chemicals. Another proposed best practice would be for EPA to make a simple summary sheet explaining SNUR notification and how to comply available on their website that suppliers could send to their customers.
- Solutions were offered for improving the awareness within the regulated community. For instance, trade associations could be relied upon to play a role, and outreach could be conducted to a broad range of trade associations (aside from those representing chemical companies) to open channels of communication. This outreach could include a general primer on SNURs or targeted information for specific industries. Others suggested that a "rifle shot" approach might also be necessary. The approach could be accomplished through an EPA listserve for SNURs, which could include a brief summary on SNUR basics. Trade associations could be relied upon to encourage companies to sign up for such a listserve. With TSCA reform coming up, the Chemical Data Reporting (CDR) rule will be reexamined and could be used to obtain information on who has SNUR materials.
- It was suggested that it would be helpful for EPA to do a **series of webinars geared towards procurement and overall management of chemical regulation and tracking**. As a general matter SNURs and chemical tracking have not been focused at an organizational level in recent years, so there is a basic education gap.
- One automotive company was successful in promoting compliance by educating its suppliers through an annual supplier day where issues including chemical data collection were discussed. Across the auto industry, there is a culture around IMDS with a major conference

- and numerous educational programs. A similar **supplier education forum** could be developed for SNUR compliance, or SNUR education could be incorporated into existing industry conferences.
- Another suggestion offered for EPA was to target outreach and education to smaller
 enterprises to help them understand the regulations and how to interface with them. With the
 supplier diversity goals that many companies have, this would help small and diversely
 owned suppliers with compliance. One method for EPA to do this would be through the
 compliance assistance centers.

A.1.4 Roundtable Agenda

United States-Canada Regulatory Cooperation Council

Opportunities for Regulatory Improvements with EPA's SNUR and EC/HC's SNAc Programs

United States Roundtable 1001 Pennsylvania Ave, NW, 9th Floor South Washington, D.C. 20004

September 17, 2015

9:00 – 9:15am Registration

9:15 – 9:30am Welcome and Introductions

Marianne Horinko, President, The Horinko Group (Moderator)

9:30 – 9:45am Issue Introduction

Maria Doa, Director, Chemical Control Division, Office of Pollution Prevention and Toxics, Office of Chemical Safety & Pollution Prevention, U.S. EPA

9:45 – 10:45am Case Study Presentations on Supply Chain Chemical Communication and SNUR/SNAc Compliance (15 minutes)

Amy Lilly, Senior Environmental Regulatory Engineer, Hyundai Kia

Jim Cooper, Senior Petrochemical Advisor, American Fuel and Petrochemical Manufacturers

Mark Duvall, Principal, Beveridge & Diamond

10:45 – 12:00pm Moderated Discussion

Supply chain processes: What are best practices for tracking chemicals in the supply chain?

12:00 – 1:00pm Networking Luncheon

1:00 – 4:00pm Moderated Discussion

Supply chain communication and complying with SNURs and SNAcs: *What can regulators do to help support downstream notification? What can industry do? What are particular challenges for importers?* (2:30 – 3:00pm break)

Marianne Horinko, President, The Horinko Group

A.1.5 Participants

Marianne Horinko (Moderator)

President

The Horinko Group

Maya Berci

Manager, Program Coordination and Regulatory Measures Section, Program Development and

Engagement Division Environment Canada

Clint Boyd

Principal, Green Chemistry & Sustainability Steelcase. Inc.

Dawn Clark

U.S. Chemical Management Leader

The Chemours Company

Jim Cooper

Senior Petrochemical Advisor

American Fuel and Petrochemical Manufacturers

Maria Doa

Director, Chemical Control Division Office of Pollution Prevention and Toxics U.S. Environmental Protection Agency

Mark Duvall
Principal

Beveridge & Diamond

Richard Engler Senior Policy Advisor Bergeson & Campbell PC

Teri Kline

Manager, Public Policy Center

Environmental, Facilities and Materials Policy

General Motors

Marcia Levinson

Product Safety and Regulatory Affairs

Covestro

Amy Lilly

Senior Environmental Regulatory Engineer

Hyundai Kia

Christina Macken
Director of Programs

Sustainable Purchasing Leadership Council

Dan Newton

Senior Manager, Chemical Risk Management

Policy & Advocacy

Society of Chemical Manufacturers & Affiliates

David Rickard

Vice President of Regulatory Affairs

ICL-IP America Inc.

Daniel Rosenberg

Senior Attorney

Natural Resources Defense Council

Peter Schlom

Regulatory Affairs Chemical Programs

Ashland Inc.

Blandine Trouille

Analyst

U.S. Department of Commerce

Tabby Waqar

Assistant Chief Counsel, Environment

U.S. Small Business Administration, Office of

Advocacy

Linda Wennerberg

Environmental Management Division

NASA Headquarters

Stephen Wieroniey

Director, Occupational Health and Product Safety

American Coating Association

Paul Yaroschak

Deputy for Chemical & Material Risk Management Office of the Deputy Under Secretary of Defense

(Installations & Environment)

U.S. Department of Defense

Terry Zitzelberger

Environmental Health & Safety Associate,

Chemical Regulatory Affairs Group

W.L. Gore & Associates, Inc.

A.1.6 Supporting Attendees

Michael Bruckner
Staff Environmental Engineer
Noblis

James Conrad
Outside Counsel to SCM&A
Conrad Law & Policy Counsel

Cathryn Courtin
Project Coordinator
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A.2 Canada Roundtable Proceedings

A.2.1 Opening Remarks and Introductions

Marianne Horinko, President of The Horinko Group commenced the roundtable with introductory remarks and thanks to all participants. Ms. Horinko then introduced Greg Carreau, Executive Director, Program Development and Engagement Division who described the contextual background and goals for the roundtable discussions and introduced Chad Beddie, Acting Manager, Risk Management Bureau, Safe Environments Directorate, Healthy Environments & Consumer Safety Branch, Health Canada, who helped kick off the day's discussion.

A.2.2 Case Study Presentations

Dave Saucier, Manager, Regulatory and Government Affairs, Canadian Association of Chemical Distributors presented first on chemical distributors' experience with SNAcs and their effect on downstream customers. This industry has a long history with monitoring and tracking chemicals due to other programs, so the tools were available to begin to manage SNAcs.

The Canadian Association of Chemical Distributors (CACD) is comprised of 46 member companies who must adhere to the Responsible Distribution Code of Practice, which is third party verified every three years. This serves as the driving mechanism for CACD's ability to manage and comply with regulations. CACD's 46 members and 70 supplier partners are importing, blending, packaging, and distributing over 100,000 chemicals and ingredients to over 80,000 customers touching every sector of the economy with the exception of the nuclear sector. On January 1, 2016 CACD will officially change its name to Responsible Distribution Canada as they expand into food and pharmaceutical sectors.

CACD learned early about the need to track ad monitor through the 1994 New Substance Notification Regulations. This established a tracking framework that was expanded between 2005 and 2015 to incorporate Section 71 notices, SNAcs, and ministerial conditions. SNAcs were originally applied to new substance notifications, making them very manageable, but when they were applied to existing substances, compliance became more challenging and instant noncompliance became more common. The tracking system had to be adapted to monitor existing chemical SNAcs.

CACD members are in a unique position, being closer to the beginning of the supply chain importing products and then selling, for example, to a formulator who may create semi-finishes or a paint company creating products that sell to a variety of sectors, and these products may go further and further down the supply chain. Many customers rely on the distributors to prepare the significant new activity notices. The challenge is that the distributor is not the user and the SNAc order is issued to the user. As the custodian of chemicals but not the user, CACD is looking to ensure that information goes beyond the first customer. Because the distributor is not the manufacturer but assumes manufacturer's responsibility, cooperation from the supply chain is imperative. The need for a common "ask" of suppliers, as well as common notification mechanisms would be beneficial.

There are many small member distributors with less sophisticated programs who are challenged with compliance. The structure of SNAc notices has been greatly improved thanks to efforts by EC and HC, but some structures are still complicated. For example, the thresholds are now consistent for triggers, but this was not the case originally. Tracking is traditionally based on volumes, so tracking usage is not a standard practice for CACD member companies and is often very difficult. Even if the intended use is known, it may be used for new business purposes once in the market.

Many small companies confused by the SNAc usage stipulations will include SNAc notifications in the SDS Section 15 and then point customer to regulations, while larger companies have the sophistication and regulatory affairs departments to communicate these more clearly and effectively through sales and marketing. However, the average CACD member is a small business without a regulatory affairs department. Properly educating business of all sizes can be a challenge.

Under the Responsible Distribution Code of Practice, members must have programs in place to monitor regulations. For products that are not on CEPA's Domestic Substances List (DSL) or are subject to risk management, distributors have to be aware and have appropriate mechanisms in place to maintain compliance. These programs must be developed to manage both CEPA compliance and importer assessments for dangerous goods, as well as Canada customs, precursors, explosives, among others. In the context of the many regulatory requirements being managed, SNAcs are not perceived to be of the highest priority.

Many members use chemical fact sheets to record the results of the assessment conducted before a chemical is imported and identify potentially applicable regulations. When a new product is procured, companies will also attempt to gather information on its potential uses. The substance's CAS number, usage data, chemical fact sheet information, and any other available data are used to populate a database, the sophistication of which may vary depending on the size of the company. For a small company, it may be a simple spreadsheet whereas a larger company might integrate the information with purchasing and inventory systems, enabling a stop order. The database, regardless of its format, enables the user to quickly identify which products are affected when a new regulation is announced, and the usage information should provide some ability to track usage when a SNAc applies to a product.

In order to assist and educate their members, CACD has created chemical supply chain management information sessions. This is a three-semester program, the first of which introduces the supply chain and gives a high level picture of the regulations. It is perfect for marketing, sales, and regulatory professionals looking for a snapshot of how business is done in Canada. The second semester is devoted to creating compliance programs for federal regulations including CEPA. The third semester covers how to deal with provincial legislation.

Bob Larocque, Senior Director, Environment and Labour Market Policies, Forest Products Association of Canada presented next on the Forest Products Association (FPA), an association comprised of about 175 medium and large wood products facilities and about 90 pulp and paper facilities who import, manufacture, and/or use substances covered by Canada's Chemical Management Plan (CMP). The FPA has partnered with the National Council of Air and Stream Improvement (NCASI) for support on scientific literature review and analysis. FPAC/NCASI

have a substantive database on the sector including information on facility location, production, types of process, energy input and use, substance uses, air and water pollutants, and types of control equipment. All chemical information in this database is based on CAS numbers or mixtures. FPAC has also developed a detailed handbook for evaluating by-product manufacture and releases for hundreds of substances.

The forest products industry went through a lot of reporting and data gathering during CMP 1, but there was excessive duplication across facilities, errors in data, minimal outreach to foreign suppliers, and simply relying on the SDS was inadequate. Data gathered during CMP 1 was used by the government to do risk assessments. The data used in these risk assessments could not be shared with the sector, as it was considered confidential. During this process, the forest product sector was identified as a user of MAPBAP acetate by foreign and domestic suppliers. Since this data was sent to EC/HC as confidential, a risk assessment was conducted using this data with exposure values based on sector process assumptions with no consultation with the users. These assumptions did not take into account the primary and secondary treatment that is standard in the industry. The releases to the environment were categorized as toxic based on these incorrect assumptions. Before the industry was aware that they were using the substance, a release guideline was established for all pulp and paper companies requiring testing, monitoring, and reporting for five years.

A SNAc was then published in January 2014 covering any activity using over 100 kg of MAPBAP acetate, but excluding use as a dye in wood, pulp, or paper products, due to the existing guideline. The current challenge is that wood suppliers can now use MAPBAP acetate without notifying downstream because of this exclusion under the SNAc. This leaves the users in a position of noncompliance without them even being aware that MAPBAP acetate is present in the products they are using.

From 2010 to 2013, an effort was put in place to track and report on over 250 substances in order to comply with CEPA, section 71, risk management (RM) actions, and SNAc requirements. The sector is also improving information sharing between suppliers and industry. Confidential business information remains an issue.

A number of solutions and best practices were identified through this experience. The forest sector developed and implemented a sector working group with EC/HC that meets monthly to review substances and data. EC/HC informs the sector about the results of section 71 reviews. Through this, the sector also discovered that the sales representatives in supplier companies had little to no knowledge of the chemicals in their products (such as MAPBAP acetate); only the company's chemists or executives were aware. It was common practice for forest product companies to reach out to sales reps to ask about the content information for products. Instead, contacting the corporate offices became a key best practice to find out what substances of concern might be present in the products. A working relationship was developed and FPAC can now provide an early warning to companies who might be using problematic substances. EC/HC have been effective with sharing information with FPAC about their sector uses in advance of a SNAc or other RM tool.

FPAC also developed an internal sector-wide process for section 71 data gathering whereby the whole sector sends information to FPAC, and they send it to the government. This allows for a

broader understanding of where and how substances are used across the sector, minimizes reporting errors, and streamlines government-sector interactions.

The sector takes full advantage of the section 71 flexible requirements that the government put in place in 2010. The inclusion of blind submission information provided adequate information for FPAC to flag a substance of concern and report this to EC/HC, so the sector can be notified of any pending RM actions on that substance.

Significant resource savings and other successes were realized through these best practices. The data practices eliminate duplication, provide more accurate and detailed information to EC/HC, enable better relations with foreign suppliers, and provide a streamlined process for follow-up requests. For risk assessment, issues and data gaps are identified early and EC/HC has improved its information sharing on data gathering. This will hopefully result in flexible and targeted RM instruments saving time and money by reducing compliance burdens.

The sector intends to build on these successes moving forward, keeping the flow of accurate information for new substances and mixtures. The sector is watching what the impact will be from the Globally Harmonized System of Classification and Labeling of Chemicals and whether more voluntary information will be provided on the SDS. The sector will continue to work with suppliers to address CBI and intends to work with EC/HC and suppliers on roles and responsibilities in future RM tools. There are some efforts to align requirements and approaches between the U.S. and Canada, but for some substances under CMP, Canada is ahead of the U.S. For example, BPA can still be used in paper in the U.S. and is then shipped to Canada for recycling without notification. Regulatory coordination for such substances would be desirable.

A.2.3 Moderated Discussion

PART 1 – Supply chain processes: What are best practices for tracking chemicals in the supply chain?

Perspectives Shared:

Distributors and Information Sharing –

- In an ideal case, when a distributor is alerted of a SNAc through a consultation or through the Canada Gazette, they would plug the CAS number (if available) into their system, monitor that chemical, and pass that information along to their customer. Depending on the size and organization of the distributor, some companies may communicate the SNAc information through a letter or through the SDS. Distributors also deal with **mixtures that may have ten or more CAS numbers** per product. Tracking such mixtures is challenging, complex, and costly.
- If a **foreign supplier does not notify of a SNAc chemical** in a product, and does not provide full disclosure of the product's content, the importer/distributor may not be able to readily determine if a SNAc applies.
- Complexity also arises for distributors when the **customer is unsure of how to comply with SNAcs**. In many cases, distributors are sending SNAc notifications on behalf of their

- customers, who do not understand the requirements. Once the distributor communicates the SNAc information to the customer, the distributor has no reliable way to ensure that the information will be appropriately communicated to the next tiers of the supply chain, as they often do not know how the chemical will be used.
- Distributors deal with manufacturers lacking knowledge of current Canadian regulations
 who rely on the distributor for compliance assistance. In these cases, there are mechanisms to
 ask suppliers for full disclosure under confidentiality agreements, with the less desirable
 alternative being to send them the Canada Gazette every time there's an update and ask
 whether their products contain any of the regulated chemicals.

SNAc Downstream Notifications -

- Some participants **discouraged trending towards full product content disclosure** as the goal, and instead suggested that by providing notification of a SNAc, the opportunity is created for the end user to communicate with the supplier in order to find out the compliance terms. This is particularly necessary when SNAcs have exemptions for certain thresholds.
- Efficiency with delivering compliance-driven notifications to customers **varies depending on product type** (e.g., article vs. paint) as well as with CBI considerations. It was also highlighted numerous times that **communication through sales representatives** can be a pitfall for accurate regulatory notification and information sharing.
- A voluntary survey or monitoring effort was suggested as a means for companies or for the government to track the success of downstream notifications. If a supplier knows where they want the information to end up, they could survey those downstream companies to see how successful the communication through the supply chain was and identify any gaps. If this is not an enforcement activity, companies may be unwilling to share information, but as an enforcement exercise, this is unlikely to be an efficient use of limited resources.
- There are **competing priorities at the start and end of the value chain**. Upstream suppliers may be focused on making the process efficient and minimizing non-value aspects, so they may avoid sending SNAc information once it becomes unnecessary to the user. At the same time, the end user might want to know and be able to verify that compliance has been achieved. Those users commonly have the perspective that the necessary information is not coming to them, and they often have to go back and find it. The government could therefore **clarify what is expected of upstream suppliers** and could do this in a targeted way that is specific to the SNAc or SNUR concern.
- Some downstream users are purchasing from suppliers who do not understand SNAc requirements, and these **users are educating the suppliers and importers**, foreign and Canadian alike, as many are not mature enough to know the regulatory regime. This is true of companies trading in Canada who lack robust regulatory programs, so participants cautioned against the false sense of security that is common when buying from companies within Canada.
- Participants expressed their appreciation for the notification flexibility inherent with SNAcs, especially when compared to the U.S. SNUR requirements. Companies use a number of mechanisms to communicate product-level information and SNAc downstream

- notification. The Canadian SDS is one such communication tool, but letters and technical bulletins are also used depending on the product type.
- Participants emphasized the need to ensure that downstream notification of SNAcs was not required beyond the end product phase. Depending on the nature of the product, that communication of the SNAc rarely makes sense and could create a competitive disadvantage.

Role of Safety Data Sheets –

- While it was noted that U.S. roundtable participants expressed a very clear dependence on the SDS, participants in Canada expressed that the SDS was one of a number of downstream notification tools. Though it is useful for providing product-level communication around regulatory status as a starting point, it was noted that the SDS is not a composition disclosure tool and has limitations with respect to information provision for compliance purposes. Under recent hazard communication requirements for the SDS, it is only necessary to disclose ingredients with hazards, meaning fewer ingredients are included on the SDS than previously. Furthermore, many products and articles containing substances subject to SNAc regulations may not have an SDS.
- Transport Canada is expected to permit the use of the SDS Section 14 as proof of classification for shippers of dangerous goods. If they were to require the use of that Section, this would contradict the health and safety laws, which specify that **Sections 12-15 are optional with no obligation to disclose**.
- Some participants supported an **obligation on all suppliers marketing products in Canada to include SNAc/SNUR information in Section 15 of the SDS** as one mechanism to ensure downstream communication. Other participants expressed opposition to such a regulation, as companies have come a long way to harmonize their SDSs. Instead, it was suggested that the decision on the notification mechanism—whether through a letter, on the SDS, or otherwise—be left up to companies. It was also suggested that the SNAc FAQ (or other tool generated by the government) **provide recommendations on the means by which suppliers could notify downstream**.
- SNAc reporting on an SDS is **logical for raw materials** so formulators can understand acceptable uses. SDSs are often generated on a finished product basis, so the expectation is that when a product is formulated it already complies with a SNAc. Mandating SNAcs on the SDS for a product that is using the material in a compliant manner would create fear and is not likely to add value.
- In the auto industry, the primary **tool to start communication** is the SDS. Even if all information is not provided in Section 15 and follow up conversations are required, the trigger for this is the SDS and the system is built on it.
- One participant suggested a tendency for their company to avoid putting a SNAc or
 ministerial condition on an SDS, as it would be hard to ensure that the information ends up in
 the correct place since regulatory departments often don't see SDSs. Instead, this company
 has a globally integrated system with substance volume tracking that prevents an order from
 proceeding where there is a ministerial condition or a SNAc unless a letter has been signed
 and returned by the customer.

One raw materials processor shared that their practice is to get information on raw materials from a regulatory supplier questionnaire requesting information on inventory status, TSCA, CEPA, SNUR/SNAc, Ministerial Conditions, etc. The suppliers in this case are generally chemical companies that have a sound understanding of those requirements. This company also employed the best practice of sending out proactive letters alerting customers to regulatory changes. If a product had a SNAc, the company would put it on the SDS and let all customers know through such a letter.

Requesting Data from Suppliers –

- For some SNAcs, there is a **legal obligation to notify the downstream user** when possession of the product is transferred (though not for a foreign distributor). In some participants' experience, this obligation doesn't significantly impact a company's ability to acquire information. U.S. suppliers are fairly consistent with providing declaratory disclosures about whether specific chemicals are present in their products. **Offshore suppliers**, however, pose a greater challenge, and importers suggested they frequently have to go back to those suppliers with specific questions.
- Surveying suppliers can result in non-response, but some companies have achieved success by targeting surveys to specific areas where chemicals of concern might be present in the supply chain and providing examples of those chemical's potential uses. The ability to **translate a chemical into its potential uses** is very valuable, but not something all companies, especially retailers, are able to do on their own. It was suggested that EC/HC consider ways that it can support this type of information gathering. For instance, within the forest sector the EC sector lead sends a list following the CEPA Section 71 survey describing a substance's potential uses and how the sector is implicated. This type of initiative was recommended across sectors, but it is was also noted that providing information on Section 71 is not necessarily the same as providing usage data for chemicals subject to SNAcs.
- One best practice shared by a company in the middle of the value chain was that in sending questionnaires out to their suppliers, they provide a link to the government's SNAc page, which is a great resource for offshore suppliers to understand the request and the context behind it. Others shared that when reaching out to suppliers they always make reference to the comprehensive SNAc list. Trade associations have a role to play in actively promoting these tools and informing their membership about upcoming chemical management actions.

Chemical Identification -

• Participants agreed that **SNAcs that do not identify a CAS number pose a significant challenge** as companies generally track chemicals by CAS number. To manage this issue, one company created its own list of CAS numbers associated with the SNAc to rely on instead. If SNAc and other risk management tools could identify discrete CAS numbers, this would be tremendously helpful for operationalizing compliance efficiencies. There is a comprehensive listing of SNAcs, but since some SNAcs are not associated with a discrete CAS number, systems solutions to check supply chain data against regulatory data will not always work. The ideal tool would be a database where a CAS number could be entered and the output would indicate whether or not there is a SNAc on that chemical. The accession number could be used to help facilitate this for confidential substance SNAcs.

Cross-Sector Collaboration –

Given the many sector-working groups and sector-specific efforts underway, participants
discussed how to take advantage of sector-specific learning and broaden it. It was suggested
that an annual forum could be set up where sector-working group leads gather to share
knowledge and best practices on data gathering, supply chain communication, risk
assessment, CBI, and related topics across sectors. It was also suggested that government
sector lead participation would be critical.

Compliance Strategies –

- A fundamental best practice shared is that companies responsible for complying with CEPA are tracking the chemicals in their products and ensuring they understand which have SNAcs, which are on the DSL, NDSL, etc. Using this information, companies are proactively looking at hypothetical formulations before finalizing to build in plans for compliance. For companies importing finished products, since CEPA was implemented, tracking has been absolutely essential, even more so than for TSCA, as Canada is very import focused.
- Another best practice shared, from the perspective of an importer and user of large quantities of materials, was to use the SDS as a building block for tracking. Though Section 15 and others on the SDS are optional, this company mandated that in order for a product to be considered for purchase, the supplier must include an affirmative statement that all substances are on the DSL and that there are no SNAc controlled substances in the product. If the SDS is submitted without this statement, the company sends it back and instructs the supplier to complete it or a letter can be accepted to go on file as part of the supply agreement.
- One challenge experienced by manufacturers is that chemicals from a Canadian supplier may be approved for use relying on certain assumptions about its compliance. If that **chemical manufacturing is bought by another company and moved abroad** and the composition gets changed, there's no way of flagging that. Instead of purchasing from a domestic supplier, the user is now the importer of record. There are far too many contracts to review annually to see which have changed terms or changed locations. A similar issue is that if a SNAc chemical is approved for a certain use, **once it is in the plant, it might be used for something else**, but there is simple means to trigger a notification on that. Workarounds are being implemented to flag SNAc chemicals and attempt to prevent this. A related lesson learned is for large companies to require separate approvals at each facility, as opposed to a one time universal approval.
- Entering or renewing a **procurement or distribution agreement** presents an opportunity to establish requirements for transferring information. 100% disclosure may not be achieved, but provision of the requisite information for compliance can be established.

Chemical Tracking Systems & Practices –

• Systems at many companies are set up to track substances at a facility level, however SNAc and SNURs require tracking at a company-wide level. This creates a new degree of complexity as well as challenges when considering **aggregate regulatory thresholds**.

- The auto industry's usage of **IMDS** has been effective in communicating substance restrictions, but it is not an effective tool for communicating SNAcs. Instead, efforts to manage SNAc compliance are conducted at a company level. Since SNAcs are specific to uses and thresholds, they do not lend themselves to be incorporated into GADSL. It was suggested that a SNAc or SNUR that clearly prohibited an automotive use could be required for addition onto GADSL; however, that would take significant time due to the global approval process.
- Several participants recognized the use of **third parties** for data submission and information collection as a best practice, which protects CBI and replaces sharing information with the customer directly.
- From the **retail industry's perspective**, SDSs are a primary, but not the sole, information source. Depending on the "ask," companies may reach out separately for additional information. U.S. counterparts are slightly ahead of the curve on information gathering and have adopted systems solutions to gather chemical information. These are being used to generate SDSs, but are also going beyond SDSs to incorporate **regulatory assessment**. State level regulation in the U.S. has driven this advancement, as they are requiring retailers to know where their risks are. Risk mitigation on the part of the suppliers is helpful, but as the party accountable for products that are marketed and sold to consumers, risk assessment is necessary for retailers to mitigate risk and ensure compliance. The retailer knows at that point how the product will be used and what the exposures and concentration will be. The Canadian retail industry is looking to leverage U.S. progress, but it will likely take years to implement a system solution.
- It was suggested that software and subscription-based **technology providers be engaged** to seek insights on system solutions for SNAc compliance promotion. However, it was highlighted that existing services can be costly, and as a result, not all stakeholders can take advantage of the assistance.

Cross-Division Coordination –

- It is essential for **regulatory compliance departments** to be engaged in their companies **at the ground level of product development**. This helps to ensure that when developers are starting to look at new products, the SDS is screened at the very beginning, before substances are brought in for product development. As a best practice, one company has internal training practices where they emphasize that developers have "early and often" interactions with their regulatory department.
- EHS and procurement systems in many companies have been established separately over time and greater interaction between these systems is now necessary but very difficult. Companies are also trying to use these systems for environmental reasons, which pose other obstacles. Collaboration between EHS, procurement, and environmental regulatory departments is similarly challenging, especially for global companies where purchasing departments for different products may be located in different countries.

PART 2 – Supply chain communication and complying with SNURs and SNAcs: What can regulators do to help support downstream notification? What can industry do? What are particular challenges for importers?

Perspectives Shared:

Challenges and Solutions for Importers –

- As the custodian of chemicals coming into Canada, the importer needs to have **as much information as possible**. Without 100% disclosure, it is a challenge for the importer/distributor to know which regulations apply. Since SDS section 15 is optional, the data sheet is not viewed as a reliable source.
- It was agreed that foreign suppliers, mostly non-U.S., are rarely, if ever, aware of Canadian regulation. Therefore many importers and distributors see themselves as the **gatekeepers for compliance**, responsible for educating suppliers and establishing defenses to protect against certain substances from coming into the Canadian market.
- Historically, many Canadian distributors were primarily dealing with manufacturers from the U.S. and Canada. Supply chains now are **global and include developing countries** with suppliers who are often unable to help with determining the regulatory status beyond simply providing a CAS number.
- One challenge for importers is when SNAcs come out for **existing substances**, on which proper regulatory due diligence has already been conducted and the purchasing department has been given approval to import with no restrictions on sales. If the importer is not given a CAS number by the supplier, they have no way of knowing whether they are importing a SNAc substance once that SNAc is announced. Review will generally be conducted if a SNAc comes out that is clearly related to a major business line that the company is in, but it's not currently feasible to go back and recheck in some cases 20,000 products every time a SNAc is issued for an existing chemical. Some cycles of renewing supply agreements provide an opportunity to recheck substance compliance. Updates to the SDS, which would provide another opportunity for reevaluating information, are no longer required on a three-year basis, but are now only required when significant new health information comes out related to the product.
- Importing **mixtures** represents another challenge when suppliers do not fully understand the regulatory requirements. One strategy suggested is to prioritize checking compliance regularly on larger volume mixtures used, due to the regulatory thresholds.
- An example was shared from the standpoint of a consumer goods retailer. The retailer imports tents from tent manufacturers in Bangladesh, who procure fabrics already treated with flame retardant (FR) treatments. It is the retailer's responsibility to disclose and report on the substances once imported. However, the tent manufacturer does not know the chemical contents of the treatments, and the fabric manufacturer, who may use multiple FR treatments, may not know the exact substance either. The **retailer has almost no information for disclosure**. Retailers in this position are looking for systems that will push information through the supply chain given that many suppliers don't know of CEPA, and even if they are aware of TSCA, they don't believe that regulations apply to consumer

- products. The importers have to do the risk assessment and need a lot of data to do so. With over 100,000 different products being imported, this assessment can't be done with spreadsheets; **systems solutions** are being sought to manage the data.
- A compliance challenge exists for importers of finished product that contains a SNAc chemical in cases where the **SNAc pertains to a step in the formulation** of the product. It is unclear what the expectation is for the user of the final product if they do not know how the chemical was used in formulation, and there is no SNAc related communication from the supplier. EC/HC have been working to balance conflicting stakeholder views on how targeted and use-specific SNAcs ought to be.

Outreach and Education –

- Ongoing dialogue with EC/HC can promote better coordination and planning in advance of SNAcs or risk management actions. Proactively engaging the regulated community and communicating SNAcs to an even greater extent was recommended. Improvements have been made, but there's an opportunity to do more. For example, there is an EC/HC listserve, but there could be broader outreach to get suppliers to sign up. In one participant's experience, the listserve announcements created confusion, fear, and overreaction for suppliers who did not readily understand whether or not SNAcs applied to them, highlighting the need for straightforward and targeted education materials. Participants expressed general difficulty navigating the regulations to determine whether or not a SNAc applies to them.
- Generally, from a downstream user standpoint, whether notification on SNAcs is voluntary or mandatory for the supplier, the users view it as mandatory that they comply with the SNAc specifications regardless. The end users want to be in compliance, so **broader communication on SNAcs must also focus on users**, not only on suppliers.
- Participants discussed the value (or lack thereof) of a consistent template for both supplier information requests and downstream notifications related to SNAcs. Many shared the opinion that progress made over the last few years in SNAcs has been possible because of the flexibility of the SNAc process. It was suggested, however, that educational materials to accompany a SNAc release would be of great value. This would not necessarily be a template, but a description of the requirements that provides further context.
- It is helpful for the government to receive a **stakeholder notification form** in response to Section 71 information gathering surveys if a sector or company is involved with a chemical, even below the reporting threshold, so that if EC/HC intends to put a SNAc in place, they can conduct targeted outreach.
- The government has faced a challenge in **identifying the appropriate stakeholders** for outreach. It has been successful at interacting with the compliant community, but it is the companies not involved in related conversations that government and industry leaders need to identify. Industry has made progress on this to an extent by bringing more companies and associations into industry coordinating groups, but there are still a vast number of unaware stakeholders. The challenge is how to best identify and engage the groups of stakeholders who potentially don't even recognize that they have CEPA obligations.
- Since they do not have access to comprehensive lists of suppliers, the government must rely
 on trade associations and the compliant community to get communications and educational

products into the supply chain. Participants suggested that the government broaden its communication efforts and distribution targets but cautioned that trade associations are voluntary and the costs associated often exclude small businesses. For some associations, all relevant companies will be represented, but for others membership may only represent a small percentage of the relevant businesses. Reaching out only to associations may not equate to comprehensive coverage of the sector.

- One strategy suggested to engage the community of stakeholders who are unaware of CEPA and SNAcs was to leverage existing forums. For instance, CEPA and SNAc education could be incorporated into the ICG supplier workshops. The two supplier workshops comprise a broad and engaged audience of people who otherwise wouldn't be involved in the discussion. Planning for the spring 2016 CEPA conference is underway with efforts to expand it, make it more hands on, provide basic fundamental tools, and incorporate further government participation. Participants suggested that more advanced sectors could partner on such an effort to bring solutions and perspective on how to tackle more complex compliance challenges. Promoting CMP compliance along with EC/HC is in everyone's best interest, as equal investment in compliance across the board would level the playing field.
- One company's experience interfacing with HC on consumer products safety and EC on small engine emissions was beneficial for understanding what products currently being manufactured could be affected, and thus how to target education and leverage regulatory peers. For consumer product safety **conversations have been happening across regulatory jurisdictions and across borders**. On emissions, EC has participated in **training sessions** with big manufacturers abroad so that they understand compliance requirements. This was extremely helpful to the downstream companies, making it much easier for them to enforce those requirements against their suppliers. The government could expand upon this work by hosting webinars with international perspectives and outreach.
- Regulatory agencies have departments that are actively engaging the private sector. This presents an opportunity to share relevant information on regulatory structure, so they are better informed on the requirements. Improved government communication and coordination internally, within respective agencies and between agencies, could be an easy means to improving external communication that enhances compliance promotion. For instance, in Ontario, the Ministry of Labor has undertaken an effort to distribute information on compliance promotion when they are talking to new companies. The key is how government agencies are coordinating to get this information out. This type of messaging could be done in partnership with various sectors as well.
- Current outreach to downstream supply chain has included making the explanatory notes in all notice of intents in orders much more plain language, clearly defining "due diligence," and clearly outlining requirements to notify downstream. EC/HC has been working on plain language summaries of all SNAcs as well as a table that will be searchable and contains categories with the main architecture of the SNAcs (e.g., definition, uses, thresholds, hazard flags, DSL, NDSL). Furthermore, at this time there are no SNAcs that apply to articles, unlike SNURs. However, participants expressed that it would be helpful to create a mechanism so that if SNAcs are eventually applied to articles, they can be easily called out in the table, as these are much more challenging to comply with.

- U.S. EPA has not conducted extensive formal downstream outreach, but would like to move forward with webinars and bi-national webinars. The agency has made a lot of information available on PMNs but recognize the opportunity to build out information on SNURs. EPA's ChemView system enables a user to search on a chemical by CAS number, name, name fragment, or tox end point. SNURs are listed in ChemView, and they can all be viewed at once. The database identifies the new use of the SNUR and allows the user to search by new use type. EC/HC has been working on improved search tools including one similar to EPA's ChemView.
- It was suggested that there might be an opportunity for EC/HC to develop and publish an **advisory note** on the functional groups associated with new substances that pose concerns. This would serve as an early warning to companies wanting to use those types of substances for specific applications. In the U.S.'s new chemicals program, chemical categories have served this role to an extent by identifying concerns associated with and testing that would be requested for chemicals of a certain structure. This is commonly used in chemical design in the U.S.
- EC/HC's **CMP materials are available in 13 languages**. Some industry sectors are building out their companion pieces in these languages to send out into their supply chains. This is a great place to start with educating foreign suppliers.
- One recommendation offered for the **SNAc webpage** was to make the key tools and resources very obvious and easily available for stakeholders less familiar with the program.
- During the **development of a SNAc**, as the government is collaborating with industry to finalize it, there might be an opportunity to drive home the expectation of the reporting obligations. This is done to an extent in explanatory text, which indicates the obligation to notify customers; however, additional language in the SNAc itself as well as the SNAc webpage could help.

Cross-Border Coordination –

- Though CEPA has been around for a long time, foreign companies are often more familiar with TSCA requirements than CEPA. It was suggested that U.S./Canada collaboration on outreach and education would capture the attention of a broader audience of stakeholders could be an effective means to achieving greater regulatory awareness for both countries. Participants also noted that the compliant community in both countries are having similar downstream communications issues, so the more stakeholders are gathered together to share challenges and solutions, the better off each country will be.
- EC/HC and the EPA have completed an analysis under the RCC to see the **overlap between SNAcs and SNURs** and concluded that only 17 substances have both a SNAc and SNUR on them. Some participants raised concerns that this lack of overlap could cause problems for products **exported and imported across the U.S./Canadian border**. For example, if a forest product company buys a SNURed chemical from the U.S., that information does not have to be communicated in the export process, and if there is no SNAc on it in Canada, the chemical would not be flagged at all. If the company puts this chemical in wood and sells that wood back to the U.S., no SNAc or SNUR information would be provided with the product. It was suggested that SNUR/SNAc notification requirements be examined and

- clarified as various scenarios involving the export and re-import of goods result in uncertain compliance situations.
- SNAcs have become increasingly targeted and clear-cut as to the particular area and sector of concern. This might be an area that the U.S. can learn from, as it makes the compliance process more efficient and mitigates the need for SNANs or SNUNs and subsequent steps involved.
- Standardizing language is key for supporting compliance. There ought to be an effort to make terms consistent so that, for example, in Canada and in the U.S., "consumer products" means the same thing. Developing a **common glossary** would be helpful and has been looked at in the past. Companies are very supportive of that type of initiative as it helps to level the playing field and level understanding of what terminologies mean.
- There could be a benefit to landing on some **common expectations** in the U.S. and in Canada for communication processes for SNAcs and SNURs down the supply chain. SNURs are more visible, so if there were a common North American approach to communication, that would help the visibility and compliance with SNAcs. There ought to be flexibility, as for certain supply chains specific forms of communication are more efficient than others, so a universal template is not the goal, but coordinated best practices would be helpful.
- Canada and the U.S. could develop a simple 101 document on what is a SNAc and what is a SNUR in plain language and post this publicly on both websites. This might help with communication across a wide variety of stakeholders and joint webinars could be used to communicate the availability of such a document. This would provide helpful context for those companies that try to avoid SNAcs and SNURs and could be used to present SNAcs and SNURs as information gathering tools.

Regulatory Improvements –

- EC/HC have embarked on a **regulatory review** of all SNAcs enforced, of which there are about 420. EC/HC are close to publishing a consultation document on the first priorities for that project, which include consumer product-type SNAcs on existing substances. The review will examine whether each SNAc conforms to SNAc policy and approaches, if it targets the risks identified in the risk assessment, and if it makes sense overall. Some SNAcs will be proposed for rescission, and the consultation document will come out for comments after the election.
- Discussions occurred around whether a mandatory requirement on downstream
 notifications for SNAcs would be beneficial for compliance. Some participants supported this
 idea, noting that requiring importers or those selling product in Canada to send SNAc
 information down the value chain is in effect moving the compliance burden up the value
 chain in a beneficial way, so it is not just on the end user. As a pilot project it was suggested
 that members of CACD could implement a mandatory requirement and see how effective it
 was.
- Others noted that mandatory reporting may be beneficial, especially when integrated with existing practices; however, requiring standardized forms or methods of notification creates regulatory burden. It was suggested that if a mandatory requirement was implemented, it be done in a way that **protects flexibility**. Compiling and disseminating industry best practices

and case studies, such as the use of supplier agreements to request information, could be done in tandem to enhance compliance promotion.

Mapping Chemical Supply Sources -

A supply chain model identifying globally where substances are predominantly produced
could be an interesting tool for regulators and the regulated community in thinking about
these issues. There are key sources of certain chemicals and knowing that could provide a
much more targeted approach to information sourcing. Regulatory cooperation could be
extended to certain areas based on this understanding. ChemFinder is one existing tool for
identifying chemical supply sources.

Negative Perception -

- Participants emphasized that the compliance mechanisms need to be manageable so that
 end users don't steer away from SNAcs or SNURs. Sometimes SNAcs or SNURs are issued
 conservatively to make sure a chemical is not used in certain applications, even if those
 applications are not likely. SNAcs and SNURs are not prohibitions and instead indicate that
 there are safe applications of the chemical, but this is not well understood.
- It was suggested that **messaging** and outreach highlight that a SNAc indicates that the government has determined certain uses are safe and may proceed, but if it's going to be used for something else, the SNAc is a means to gather more information. This might help mitigate some of the misunderstandings around SNAcs.
- Using DSL inventory updates in lieu of issuing SNAcs for existing chemicals is a preferable alternative due to the tendency for companies to avoid products with SNAcs altogether.

A.2.4 Roundtable Agenda

United States-Canada Regulatory Cooperation Council

Opportunities for Regulatory Improvements with EPA's SNUR and EC/HC's SNAc Programs

Canada Roundtable 180 Queen St W, 8th Floor, Room 8-03 Toronto, ON, Canada

September 22, 2015

9:00 – 9:15am **Registration**

9:15 – 9:30am Welcome and Introductions

Marianne Horinko, President, The Horinko Group (Moderator)

9:30 – 9:45am Issue Introduction

Greg Carreau, Executive Director, Program Development and Engagement Division, Environment Canada

Chad Beddie, Acting Manager, Risk Management Bureau, Safe Environments Directorate, Healthy Environments & Consumer Safety Branch, Health Canada

9:45 – 10:30am Case Study Presentations on Supply Chain Chemical Communication and SNUR/SNAc Compliance (15 minutes)

Dave Saucier, Manager, Regulatory and Government Affairs, Canadian Association of Chemical Distributors

Bob Larocque, Senior Director, Environment and Labour Market Policies, Forest Products Association of Canada

10:30 – 12:00pm Moderated Discussion

Supply chain processes: What are best practices for tracking chemicals in the supply chain?

12:00 – 1:00pm Networking Luncheon

1:00 – 4:00pm Moderated Discussion

Supply chain communication and complying with SNURs and SNAcs: *What can regulators do to help support* **downstream** *notification? What can industry do? What are particular challenges for importers?* (2:30 – 3:00pm Break)

4:00 - 4:15pm Take-Aways & Wrap Up

Marianne Horinko, President, The Horinko Group

A.2.5 Participants

Marianne Horinko (Moderator)

President

The Horinko Group

Chad Beddie

Acting Manager, Risk Management Bureau, Safe

Environments Directorate, Healthy

Environments & Consumer Safety Branch

Health Canada

Greg Carreau

Executive Director, Program Development and

Engagement Division Environment Canada

Gord Cluett

Product Stewardship and Regulatory Affairs

Consultant

E. I. du Pont Canada Company, Kingston

Technical Centre

Andy Dabydeen

Product Stewardship

Canadian Tire Corporation, Ltd.

Maria Doa

Director, Chemical Control Division Office of Pollution Prevention and Toxics U.S. Environmental Protection Agency

Tammy Giroux

Manager, Government Relations General Motors of Canada Limited

Bob Larocque

Senior Director, Environment and Labour Market

Policies

Forest Products Association of Canada

Jim Leamen

Regulatory Affairs Co-Ordinator

L.V. Lomas

Maggie MacDonald
Toxic Program Manager
Environmental Defence

Anne McConnell

Canadian Consumer Specialty Products Association

Rob McIntyre

Manager, Product Sections Electro-Federation Canada

Beta Montemayor

Director of Environmental Sciences and

Regulations

Canadian Cosmetic, Toiletry and Fragrance

Association

Gerry Moss

Consultant on behalf of Ashland Canada Corporation

Joel Perron

Assistant Manager, Legal & Government

Compliance, Service Suzuki Canada Inc.

Robert Roth

Technical/Regulatory Affairs Manager

Arkema Canada Inc.

Dave Saucier

Manager, Regulatory & Government Affairs Canadian Association of Chemical Distributors

Findlay Sams

Supervisor Product Regulation & Compliance

Honda Canada Inc.

Catharine Urquhart

Regulatory Affairs Supervisor, Corporate

Regulatory Affairs

3M

Teena Warrin

Manager, Product Stewardship and Regulatory

Affairs

Croda Canada Ltd.

A.2.6 Supporting Attendees

Maya Berci

Manager, Program Coordination and Regulatory Measures Section, Program Development and Engagement Division Environment Canada

Jean-Francois Cayer

Senior Evaluator, Risk Management Bureau, Safe Environments Directorate, Healthy Environments & Consumer Safety Branch Health Canada

Cathryn Courtin
Project Coordinator
The Horinko Group

Susan Fraser

Program Coordination and Regulatory Measures Section, Program Development and Engagement Division

Environment Canada

John Hobbs
Procter & Gamble Canada

Gary LeRoux
President
Canadian Paint and Coatings Association

Sean McGinnis Project Manager The Horinko Group

Andrew Morin
Vice President, Technical and Regulatory Affairs
Global Automakers of Canada

Linda Santry

Senior Advisor, Product Regulatory Compliance, Product Integrity NOVA Chemicals Corporation

Kylie Scoggan

Senior Advisor Environmental Strategies, Risk Management Bureau, Safe Environments Directorate, Healthy Environments & Consumer Safety Branch Health Canada

Yasmin Tarmohamed Vice President, Environment, Health and Safety Canadian Vehicle Manufacturers' Association

Lynn Vendinello
Deputy Director, Chemical Control Division
Office of Pollution Prevention and Toxics
U.S. Environmental Protection Agency