Grice, Joshua (ECY)

From: Shestek, Tim [Tim_Shestek@americanchemistry.com]
Sent: Monday, March 11, 2013 2:50 PM
To: Kraege, Carol P. (ECY)
Cc: Tipaldo, Emily; Grant Nelson; green9600@comcast.net; Brandon Houskeeper
Subject: ACC comments regarding Toxics Policy Reform for Washington State white paper
Attachments: Federal Statutes Regulating Chemicals.pdf; ACC WA DOE GC Roadmap 20120925 FINAL.pdf; ACC WA TRSWG Comments 20130311.pdf

Dear Ms. Kraege: attached are comments and background materials from the American Chemistry Council (ACC) re: the toxics policy reform for Washington State white paper. Thank you in advance for considering our views.

Sincerely,

Tim Shestek
American Chemistry Council

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Tim Shestek – Senior Director, State Affairs
American Chemistry Council
1121 L St., Suite 609 | Sacramento, CA | 95814
O: 916-448-2581 | F: 916-442-2449

March 11, 2013

TO: Governor Jay Inslee,
Speaker Frank Chopp,
Majority Leader Senator Rodney Tom,
Senator Doug Ericksen, Chair Senate Committee on Energy, Environment and Telecommunications,
Senator Kevin Ranker, Senate Committee on Energy, Environment and Telecommunications,
Representative Dave Upthegrove, Chair House Environment Committee,
Representative Shelly Short, House Environment Committee

The American Chemistry Council (ACC)[1] appreciates the opportunity to review and comment on the Washington Toxics Reduction Strategies Workgroup's twelve recommendations (hereafter Report) for action.

By way of background, ACC represents the leading companies engaged in the business of chemistry in the United States. Our products serve as the building blocks for virtually every industry and manufacturing sector in the U.S., including aerospace, agriculture, and electronics. ACC members make chemical safety the highest of priorities in how they do business. ACC therefore certainly supports Washington's objectives to protect human health and the environment and to encourage a sound economy.

The Workgroup's report acknowledges that much progress has been made to address "toxic chemicals" in the State of Washington, but its recommendations focus on improving these efforts. Some of these recommendations address the problems of non-point source pollution and legacy pollution issues, but most of the Report addresses the use of chemicals in consumer products, ways to reduce those uses and design "safer" chemicals through "green chemistry." As part of our commitment and responsibility to manufacturing safe products, the concept of "green chemistry" is certainly not new. Continuous product and process innovation is how our industry approaches its day to day operations.

Yet we believe "green chemistry" must be considered a way of doing business, not a governmental mandate. As numerous experts have acknowledged, green chemistry cannot be legislated, although both green chemistry and green engineering can be promoted and enhanced by appropriate policy decisions. Public policy in this area should not arbitrarily pick "winners"

[1] The business of chemistry is a $760 billion enterprise and a key element of the Nation's economy. It is one of the Nation's largest exporters, accounting for ten cents out of every dollar in U.S. exports. Chemistry companies are among the largest investors in research and development. ACC members apply the science of chemistry to make innovative products and services that make people's lives better, healthier and safer. ACC is committed to improved environmental, health and safety performance through Responsible Care®, common sense advocacy – designed to address major public policy issues, and health and environmental research and product testing.

and "losers" in the marketplace but should instead focus on removing barriers and creating objective tools that foster new products and promote consumer awareness.

ACC is troubled and concerned that much of the Report and recommendations are generally based upon a faulty premise that the majority of chemicals in commerce have inadequate health and safety data, are unregulated, and their presence in products causes a host of adverse effects. These assumptions are either incorrect or at best broad over-statements. Public policy related to chemical products must be based on a full accounting of factual information, grounded in credible, scientific principles. This report and its various policy Recommendations fall well short of the standard.

Moving forward, any discussion of chemical policy in Washington must begin by putting related issues into the proper context. This is important because as drafted, the Report contains a great deal of emotional and inflammatory rhetoric that has little basis in science.

For example, the Report provides the reader with specific commentary on a variety of diseases or conditions and associated medical costs (e.g. 37,000 new cases of adult cancer diagnosed in 2009). While the Report acknowledges that these "diseases are influenced by a complex set of genetic, behavioral and environmental factors and toxic chemicals are not solely responsible for all these outcomes," the report concludes that sentence with the vague editorial comment "but we know they play a role."

Disease causation is a very complex issue. To clarify, most of the studies behind these allegations about chemicals and health identify "associations," not causation. This distinction is critical. The studies selected in the Report's endnotes to support the Report's recommendations may suggest the need for more research, but not premature policies or regulatory actions. The studies cited also don't necessarily reflect a consensus of scientific and medical opinion. ACC is very supportive of additional research to understand the relationship between chemicals and our health and environments. For example, from the time it was first proposed, ACC has supported the National Institute of Child Health and Development's National Children Study, which will examine the physical, chemical, biological and social factors in children's health. The Long-Range Research Initiative (LRI) of the ACC promotes innovations in chemical safety assessment. It invests in science essential for understanding the impact of chemicals on human health and the environment. (For more information on the LRI's integrated approach to exposure and hazard characterization, please see, http://lri.americanchemistry.com/.) It is vital to improve our understanding of chemicals and their potential risks in order to control these risks.

The Report also implies that chemicals are either "toxic" or not, without any discussion of the concept of "dose response". It discusses the "low dose" issue as though it were accepted by all mainstream toxicologists and regulators as the basis upon which to regulate chemicals. It discusses "endocrine disruptors" as known chemicals of concern, without any mention of EPA's ongoing program to test chemicals for endocrine disrupting activity that may produce adverse effect and to regulate those that do under the Agency's risk based authorities for regulating chemicals. And the report appears to assume, without much support, that the "presence" of "toxic" chemicals in products is the main unregulated source of chemical exposures to humans and the environment.

Overall, while there are some recommendations which ACC would support (e.g. the shared responsibility of industry, government, NGOs and individual consumers to address chemical risks), the Report reveals a lack of understanding of both what a science-based approach to addressing chemical risks (presented by both manufacturing processes and consumer products) should include and what are current federal practices to evaluate and regulate chemicals and consumer products. ACC's additional comments on the report focus on the following elements:

- U.S. EPA is undertaking actions to strengthen the chemical management safety net using current authority.
- Policies to address potentially harmful substances must be science-based.
- The Report bypasses the most critical step for assessing materials, the risk/safety assessment.

U.S. EPA is Undertaking Actions to Strengthen the Chemical Management Safety Net Using Current Authority.

The Toxic Substances Control Act (TSCA) is one of the major chemical regulatory laws in the U.S., imposing significant reporting, testing and regulatory requirements on chemical manufacturers and processors. In 2010, EPA began taking several new important steps toward strengthening the federal chemical management safety net under the existing TSCA framework. One of these enhancements was to the Inventory Update Rule, re-named the Chemical Data Reporting (CDR) rule. Another one is in development of a science based process for prioritizing chemicals for EPA's further review and assessment and risk management where warranted.

Under the Chemical Data Reporting rule, manufacturers report to EPA their uses of chemicals in a variety of industrial categories, commercial categories and consumer product categories – including chemicals used in children's products. EPA uses this information to understand potential exposures to these chemicals and to better manage their risks. In 2012, companies reported to EPA more data on more chemicals than ever before. What this tells you is that EPA has access to significant data and information about chemicals in commerce. Earlier this month (February 11, 2013) EPA issued the 2012 CDR reporting information via a searchable, online Chemical Data Access Tool. http://www.epa.gov/oppt/cdr/index.html. States, such as Washington, will benefit from this information

A second development in EPA's regulation of chemicals was its March 2012 announcement of its prioritization of 83 "Work Plan" chemicals for review and assessment. Shortly after this announcement, EPA identified the first five of these to undergo targeted risk assessments. EPA's draft assessments are currently being reviewed by the public and will be subject to peer review after that. (See link to EPA's Work Plan chemical activities: http://www.epa.gov/oppt/existingchemicals/pubs/workplans.html) EPA plans to conduct assessment for 18 additional Work Plan chemicals in 2013 and 2014. This development reflects EPA's commitment to better utilize its authority under the federal Toxic Substances Control Act to prioritize chemicals in commerce for evaluation and possible regulatory action. EPA took a science and risk based look at chemicals to establish its priorities for further review and

assessment. EPA's approach helps assure a focus on true priorities based on hazard and exposure, not perceived threats.

In addition to these recent developments under TSCA, in contrast to the common assertion that EPA has regulated only a handful of chemicals in commerce, over the years EPA in fact has taken regulatory actions to impose restrictions on about 1,200 chemicals via its authorities under TSCA. Moreover, chemicals are subject to more than a dozen federal laws and regulations that control the release of chemicals to the air, to water, to soil, as well as regulation of chemicals used to make pesticides, pharmaceuticals, commercial products, consumer products and chemicals used in basic industrial processes to make other chemicals. (See list of federal statutes attached.) As you are aware, chemicals are also subject to myriad state laws and regulations and product liability laws.

While TSCA's regulation of chemicals is protective of human health and the environment, the statute is now 36 years old and deserves reform, which ACC strongly supports. TSCA needs modernizing to bring it in-line with new developments in science and technology, to focus it on high priority chemicals and uses of chemicals, while still promoting innovation in the development of new chemistries.

Policies to Address Potentially Harmful Chemicals and/or Products Must be Science-Based.

The Report asserts several times that "toxic" chemicals "present in consumer products" are a major source of exposure to these chemicals. The presence of a "chemical," a "chemical of high concern," or a "priority chemical," however, does not necessarily mean that a product containing the chemical is harmful to human health or that there is any violation of existing safety standards or laws. Even the Department of Ecology acknowledges that the mere presence of a chemical in a product cannot be used to conclude a potential health risk. On its Children's Safe Products Act website, Ecology clearly states the following:

- The presence of a chemical in a children's product does not necessarily mean that the product is harmful to human health or that there is any violation of existing safety standards or laws;
- The reporting triggers are not health-based values; and,
- The data should not be used determine the safety of an individual product. (Reference: http://www.ecy.wa.gov/programs/swfa/cspa/search.html)

Risks associated with a chemical in a product are dependent upon the potency of the chemical and the magnitude, duration and frequency of exposure to the chemical. Analytical chemistry methods are so advanced today that infinitesimally small amounts of substances can be detected; but mere detection doesn't equate to health risk. Therefore, inclusion or exclusion as part of a regulatory policy must at least be contingent upon whether the chemical used in the product is at a level above a *de minimis* threshold.

The Recommendations bypass the most critical step for assessing materials, the risk/safety assessment.

The Report makes no mention of a critical step in the evaluation of whether any actual risk may be posed by the presence of chemicals in consumer products. Once an appropriately scientific prioritization screening tool is used by a regulator to identify those substances that present the highest hazard AND greatest potential for exposure, the next critical step, from a public health standpoint, is to conduct a risk/safety assessment. In a risk or safety assessment, risk characterizations include consideration of information about product uses and reasonably anticipated exposures, including potential exposures to children. Risk characterizations use valid, reliable and relevant scientific studies and information, giving such studies and information appropriate weight, to determine potential risks associated with relevant levels of exposure under expected conditions of use.

These Report presumes – without a safety assessment to evaluate whether any real risk exists to the public – that all "toxic" chemicals must be removed (banned) from products through numerous mechanisms (for example, through legislative efforts, required alternatives assessments, market pressures, and manufacturing processes). The presumption that reduction in the "use" of "toxic" chemicals is the best and most reliable and most efficient way to reduce exposures to these chemicals, however, is naïve. Chemicals are not either "toxic" or "non-toxic". Any chemical can be toxic at certain doses so the question of "dose response" is critical. The Report simply assumes there are lists of "toxic" chemicals whose use can be reduced or eliminated to better health/environmental effect. This wholly overlooks the assessment step for determining whether in fact the chemical as used in the product poses exposure issues of concern. Further, identifying "toxic use reduction" as the preeminent form of pollution prevention also overlooks the issues of "function" of a chemical in a product and the cost of alternatives.

Conclusion

Any policies that aim to enhance "toxics" management to address potential exposures to the public and the environment must be based upon the following principles:

- Use objective criteria to identify priority chemicals of highest concern based on uses that have the greatest potential for exposures.

- Apply and leverage existing scientific information about chemical uses in products and in waste management practices rather than duplicate ongoing Federal efforts in this area.

- Rigorously evaluate the potential risks from exposures to identified priority chemicals in consumer products, to which the public is exposed.

- Construct transparent processes that afford all stakeholders, including affected businesses, the opportunity for comment and input on the assessment of chemical uses in consumer products, including input on the scientific basis for the "priority" identification.

It is critical to recognize that Americans are living longer, healthier and safer lives due in large measure to the contribution of chemistry, and to the development of new products and technologies we all enjoy today. Chemistry is essential to life-saving medicines, safe drinking water, food safety, computers, cell phones, and high performance fuel systems, etc. Policymakers should consider the information and recommendations in the Report to be an incomplete picture at best. Information about the current federal regulatory framework governing chemical manufacturing and consumer products should not be limited to a discussion about TSCA, but should include other federal laws and regulations that address chemicals, as well as on-going efforts to enhance the public availability of chemical information, as cited above. ACC hopes that policymakers understand the limitations and shortcomings of this document.

Thank you again for the opportunity to express our views. Please contact either Emily Tipaldo (202) 249-6127 (emily_tipaldo@americanchemistry.com) or Tim Shestek (916) 448-2581 (tim_shestek@americanchemistry.com) should you have any questions or comments.

Sincerely,

Emily Tipaldo
Manager
Regulatory and Technical Affairs

Tim Shestek
Senior Director
State Affairs

700 Second St., NE | Washington, DC 20002 | (202) 249.7000

September 25, 2012

Ken Zarker
Manager, Pollution Prevention & Regulatory Assistance
Washington State Department of Ecology
P.O. Box 47600
Olympia, Washington 98504-7600

RE: Draft Report, "A Roadmap for Advancing Green Chemistry in Washington State"

Dear Mr. Zarker:

The American Chemistry Council (ACC)[1] represents the leading companies engaged in the business of chemistry in the United States. We appreciate the opportunity to review and comment on the Department of Ecology's (DOE) draft Roadmap for Advancing Green Chemistry (hereafter Roadmap), and support the comments submitted by the Association of Washington Business.

The Roadmap outlines an ambitious agenda to incorporate elements of green chemistry throughout the State's operations. It properly acknowledges the inter-disciplinary nature of achieving green chemistry objectives, including business, government, academia, and public interest groups. ACC also agrees with the State's objective to encourage and secure a sound economy.

We believe "green chemistry" must be considered a way of doing business, not a governmental mandate. As numerous experts on green chemistry have acknowledged, green chemistry cannot be legislated, although both green chemistry and green engineering can be promoted and enhanced by appropriate policy decisions. Instead of picking "winners" and "losers" in the marketplace, green chemistry should help remove barriers and create objective tools that foster new products and promote consumer/customer awareness. ACC therefore recommends that the following elements be included in any "green chemistry" Roadmap that is ultimately adopted:

[1] The American Chemistry Council (ACC) represents the leading companies engaged in the business of chemistry. ACC members apply the science of chemistry to make innovative products and services that make people's lives better, healthier and safer. ACC is committed to improved environmental, health and safety performance through Responsible Care®, common sense advocacy designed to address major public policy issues, and health and environmental research and product testing. The business of chemistry is a $720 billion enterprise and a key element of the nation's economy. It is one of the nation's largest exporters, accounting for ten cents out of every dollar in U.S. exports. Chemistry companies are among the largest investors in research and development. Safety and security have always been primary concerns of ACC members, and they have intensified their efforts, working closely with government agencies to improve security and to defend against any threat to the nation's critical infrastructure.

- A key objective should be to minimize and/or reduce potential risks to health and the environment that are otherwise unmanaged or unacceptably under-managed. Such an undertaking must consider both the hazard and exposure potential of a particular chemical. Statements in the draft Roadmap that Washington should pursue policies to encourage the use of "non-toxic" chemicals ignore the role of exposure potential and therefore are not grounded in sound science. Such statements should be struck from the final draft. Further, as could be suggested by Recommendation 5.1 and 5.4, chemical-specific legislation is a costly, impractical way of using Washington's resources to address critical risk related issues.

- Washington should continue to enhance academic curricula, particularly post-secondary, to cover green chemistry topics. For instance, this might include expanded training in toxicology (human and environmental), exposure assessment, life cycle analysis, and risk assessment.

- The Roadmap should clarify that the broad scope of "green chemistry" includes the process safety and design aspects of "Green Engineering,"[2] and is not limited to substitution of chemicals purely on the basis of a chemical's hazard profile. Currently the Roadmap does not include reference to the ACS Green Engineering Principles. A concerted effort to disseminate appropriate information on the accomplishments, best practices, costs, and benefits of green chemistry would additionally help assure that all interested stakeholders better understand the concept.

- A series of well-conceived and well-executed incentive programs, such as those proposed by Recommendations 4.4 and 4.5 (Accelerate Economic Development & Workforce Training), can help create a better understanding of and commitment to green chemistry. For example, providing low interest loans, grants or tax incentives to companies using "Green Engineering" or "Green Chemistry" practices. The State could also agree to promote such products and companies and/or agree to use such vendors in State procurements.

- As mentioned above, successful green chemistry/green engineering is achieved through inter-disciplinary collaboration in business, government, academia, and the public. A set of clear criteria and objectives for partnerships with Washington (either business or academia), and an understanding of how Washington would approach ownership of generated intellectual property would help assure companies are aware of the opportunities for R&D activities.

  It is imperative that Washington seek and incorporate the expertise of industry when exploring policies relative to "alternatives assessments" (AA). As you are undoubtedly aware, conducting AAs on chemicals in consumer products is a complex undertaking. ACC member companies, along with our downstream consumer product partners, are at the forefront of innovation. The research and development that industry is conducting

[2] ACS Green Chemistry Institute, "Twelve Principles of Green Engineering", http://portal.acs.org/portal/acs/corg/content?_nfpb=true&_pageLabel=PP_ARTICLEMAIN&node_id=1415&content_id=WPCP_007505&use_sec=true&sec_url_var=region1&__uuid=c0b508e9-44e9-4f73-a5bd-400d97219022.

today will result in the creation of chemistries of the future. ACC encourages you to engage these companies and their respective experts when discussing any AA policy. In our view, there is no better resource for understanding the complexities of conducting AAs, and how product development issues are addressed in "real world" applications, than those individuals intimately involved in product innovation.

ACC looks forward to participating in the further development of the Roadmap and the advancement of green chemistry in Washington State. If there are any questions regarding ACC's comments on the Roadmap, please feel free to contact me at 202-249-6127 or Tim Shestek at 916-448-2581.

Sincerely,

Emily Tipaldo
Regulatory & Technical Affairs

Tim Shestek
State Affairs

Federal Statutes Regulating Chemicals

Abbreviation	Statute	Brief Summary
1. TSCA	Toxic Substances Control Act 15 U.S.C. §§ 2601 – 2695d	• Requires premanufacture notification for all new chemicals not on the TSCA Inventory; authorizes Environmental Protection Agency (EPA) to restrict new chemicals of concern • Authorizes EPA to require periodic reporting of information about chemicals, including manufacturing and use data and health and safety studies • Requires reporting of information that reasonably supports the conclusion of substantial risk • Authorizes EPA to require data submission (akin to premanufacture notice) before companies engage in "significant new uses" of chemicals • Authorizes EPA to issue test rules, and reporting rules for chemicals it finds may pose an unreasonable risk; chemicals may also be tested by industry through voluntary programs under TSCA • Authorizes EPA to require testing to meet good laboratory practice standards and validated protocols • Authorizes EPA to ban or restrict chemicals that pose an unreasonable risk to human health or the environment • Requires certification of TSCA compliance for all imported chemicals • Requires notification to EPA of export of chemicals that have been restricted in the United States • Supports EPA initiatives to prioritize and review chemicals and take regulatory actions to restrict chemicals where EPA deems necessary
2. FIFRA	Federal Insecticide, Fungicide, and Rodenticide Act 7 U.S.C. §§ 136 – 136y	• Requires all pesticide products and their active ingredients, including antimicrobials and certain kinds of preservatives, to be registered prior to sale • Registration requires data showing that the pesticide is effective and does not pose an unreasonable risk to man or the environment; burden of proof is on pesticide manufacturer

Abbreviation	Statute	Brief Summary
		• Authorizes EPA to require testing to meet good laboratory practice standards and validated protocols • Requires registration of producing establishments • Requires annual production reporting • Requires reporting of adverse effects information • Requires certification of FIFRA compliance for imported pesticides • Requires detailed package labeling • Requires notification of export of unregistered pesticides
3. FFDCA	Federal Food, Drug, and Cosmetic Act 21 U.S.C. §§ 301 – 399d	• Prohibits the sale of any food, drug, medical device, or cosmetic that is adulterated or misbranded • Requires premarket approval of food additives, color additives, new dietary ingredients, drugs, and medical devices, including their components, based on a showing that they are safe • Requires producers of food additives that are not "generally recognized as safe" to demonstrate to a reasonable certainty that no harm will result from the intended use of their additives • Broadly defines "food additive" to include small transfers from food packaging materials
4. FQPA	Food Quality Protection Act 110 Stat. 1489, amending FIFRA and FFDCA	• Requires EPA to set tolerances, or maximum safe residue limits, for pesticide residues on foods • Expands EPA authority over food contact substances, e.g. antimicrobials in or on food packaging • Includes special protections for infants and children • Requires EPA to expedite approval of reduced risk pesticides
5. CAA	Clean Air Act 42 U.S.C. §§ 7401 – 7671q	• Sets mandatory performance levels for reducing emissions of toxic air pollutants from various categories of industrial facilities • Requires plans for the prevention of emergency releases to air of highly toxic chemicals • Requires air pollution sources to meet emission limits and obtain permits from EPA or states • Requires reporting and recordkeeping under the permits • Requires phasing out of production and use of ozone-destroying chemicals and encourages the development of "ozone-friendly" substitutes

Abbreviation	Statute	Brief Summary
6. FWPCA / CWA	Federal Water Pollution Control Act (Clean Water Act) 33 U.S.C. §§ 1251 – 1387	• Controls chemical discharges of pollutants to waters through the National Pollutant Discharge Elimination System (NPDES) permit program • Imposes both technology-based standards and effluent guidelines • Operates pretreatment program for industrial facilities that discharge chemicals in waste water into municipal sewer systems
7. SDWA	Safe Drinking Water Act 42 U.S.C. §§ 300f – 300j-26	• Requires EPA to set national health-based standards for chemicals and other contaminants in drinking water • Requires public water systems to test for contaminants and meet drinking water standards; operators must be certified
8. RCRA/ SWDA	Resource Conservation and Recovery Act, amending the Solid Waste Disposal Act 42 U.S.C. §§ 6901 – 6992k	• Gives EPA "cradle-to-grave" authority to control hazardous waste • Requires hazardous waste identification and tracking • Establishes extensive permitting and operating requirements for hazardous waste generators, transporters, treatment facilities, storage facilities, and disposal facilities • Requires corrective action to clean up releases of hazardous wastes or hazardous waste constituents at RCRA-regulated sites • Provides framework for management of non-hazardous solid waste
9. CERCLA / Superfund	Comprehensive Environmental Responsibility, Compensation, and Liability Act 42 U.S.C. §§ 9601 – 9675	• Establishes processes and standards for clean-up of hazardous waste sites and removal and remediation of contaminants • Imposes strict liability for clean-up for potentially responsible parties, including prior owners/operators, entities that arranged for waste disposal, and others, thereby ensuring that care is taken against chemical releases going forward to avoid this liability • Establishes National Oil and Hazardous Substance Pollution Contingency Plan (NCP) • Created the Agency for Toxic Substances and Disease Registry (ATSDR) within CDC Public Health Service, and other offices
10. EPCRA	Emergency Planning and Community Right-to-Know Act 42 U.S.C. §§ 11004 – 11050	• Requires companies to submit detailed annual reports on releases and transfers of certain toxic chemicals (Toxic Release Inventory or TRI reporting); makes reported data publicly available • Requires every community in the United States to be part of a comprehensive emergency response plan; facilities must participate in the planning process

Abbreviation	Statute	Brief Summary
		• Requires companies to maintain material safety data sheets (MSDSs) for hazardous chemicals and to submit the MSDSs or lists of chemicals, and annual inventory of these chemicals, to state and local emergency planning entities and the local fire department (Tier I or Tier II reporting) • Requires immediate notification of accidental chemical releases to state and local emergency planning entities • Requires notification of the presence of high quantities of listed "extremely hazardous substances" to state and local entities
11. PPA / P2 Act	Pollution Prevention Act 42 U.S.C. §§ 13101 – 13109	• Requires companies to file an annual toxic chemical source reduction and recycling report along with TRI report • Requires EPA to consider the effects of its regulations on reduction of pollution production at the source and to coordinate with other agencies to promote source reduction • Creates a Source Reduction Clearinghouse to foster information exchange on source reduction techniques and technical assistance for businesses • Provides grants to states for source reduction programs
12. OSH Act	Occupational Safety and Health Act 29 U.S.C. §§ 651 – 678	• Establishes wide-ranging hazard communication program • Requires manufacturers and importers of hazardous materials to conduct hazard evaluations of the products they manufacture or import • Requires labels and material safety data sheets for hazardous materials at the workplace and accompanying initial shipments to new customers • Requires companies to provide personal protective equipment and training to protect against chemical and other workplace risks • Requires recordkeeping of workplace injuries and illnesses and reporting of serious incidents • Maintains Occupational Chemical Database with EPA • Established the National Institute of Occupational Safety and Health (NIOSH) which researches, inter alia, chemical safety
13. HMTA	Hazardous Materials Transportation Act 49 U.S.C. §§ 5101 – 5127	• Requires identification of potential hazards (including toxicity, flammability, corrosivity, etc.) of transported materials and

Abbreviation	Statute	Brief Summary
		products • Requires hazard communication (shipping papers, package marking and labeling, and vehicle placarding) for various classes of hazardous materials including listed materials, hazardous wastes, and marine pollutants • Specifies packaging safety requirements • Specifies operational and training requirements for transportation of chemicals and hazardous materials by various modes (air, water, road, rail, pipeline) • Administered by Department of Transportation's Pipeline and Hazardous Materials Safety Administration
14. CPSA / CPSIA	Consumer Product Safety Act, as amended by the Consumer Product Safety Improvement Act 15 U.S.C. §§ 2051 – 2089	• Establishes independent Consumer Product Safety Commission • Governs manufacturers (including importers), distributors, and retailers • Sets preference for consensus voluntary private sector standards (e.g. ANSI, ASTM) but authorizes CPSC to impose mandatory standards for product safety • Restricts lead paint and phthalates in children's products or child care articles • Requires labeling, tracking, third party testing and certification for children's products • Requires general conformity certification with each shipment • Requires reporting of product defects or non-compliance with mandatory standards • Enforced by retail, import, and internet surveillance
15. PPPA	Poison Packaging Prevention Act 15 U.S.C. §§ 1471 – 1477	• Requires CPSC to establish standards for special packaging of any household chemical, including fuels, cosmetics, and other substances customarily stored by households, in order to protect children from hazards • Makes alternative labeling option available where child-protective packaging would make the household substance unavailable to elderly or disabled persons
16. FHSA	Federal Hazardous Substances Act 15 U.S.C. §§ 1261 – 1278	• Requires container labeling for hazardous household products to help consumers safely store and use those products and to give

Abbreviation	Statute	Brief Summary
		information on first aid • Authorizes the CPSC to ban certain products that are so dangerous or the nature of the hazard is such that labeling is not adequate to protect consumers
17. FPLA	Fair Packaging and Labeling Act 15 U.S.C. §§ 1451 – 1461	• Requires each package of household consumer commodities to bear a label on which there is information necessary to prevent consumer deception • Administered by the Federal Trade Commission and FDA
18. CSA	Controlled Substances Act 21 U.S.C. §§ 801 – 971	• Restricts the manufacture, import, export, distribution, and use of chemicals which are narcotics or can be used to make narcotics • Administered by the Drug Enforcement Administration in the Department of Justice and by FDA
19. CFATS	Department of Homeland Security Appropriations Act 6 U.S.C. § 121 note	• Authorizes the Department of Homeland Security (DHS) to establish risk-based Chemical Facility Anti-Terrorism Standards for the security of chemical facilities • DHS assigns facilities to one of four risk tiers; different assessment and planning obligations are imposed for the different tiers
20. CWC	Chemical Weapons Convention Implementation Act 22 U.S.C. §§ 6701 – 6771	• Authorizes reporting of information about chemicals that may be used to make chemical weapons • Authorizes international inspection of facilities where chemicals that may be used to make chemical weapons are present • Administered by the Department of Commerce's Export Administration and by the Department of State