

## **2025 Safer Chemistry Industry Challenge Program of the National Pollution Prevention Roundtable (NPPR)**

More than ever before, companies are focused on achieving high levels of environmental performance and sustainable business practices. Sustainable business practices create market opportunities and help companies remain competitive in the global marketplace. The environmental benefits that come from these sustainable practices include resource conservation and pollution prevention. Such practices are a means to meet environmental standards and ensure a high quality of life for future generations.

Moving toward safer chemistries is a key part of sustainable business practices, along with energy efficiency and water conservation. To increase their sustainable business practices, companies are looking for greener, safer alternatives in the products they manufacture and use.

Companies can lead by example and model good environmental performance by using a systematic approach for managing environmental responsibilities, taking extra steps to reduce and prevent pollution, eliminating the use of toxic compounds, and substituting safer alternatives.

### **NPPR 2025 Safer Chemistry Industry Challenge Program**

The NPPR 2025 Safer Chemistry Industry Challenge Program is designed to motivate, challenge, and reward facilities to reduce the use of chemicals, especially hazardous chemicals, through source reduction measures. These measures include the following approaches:

- Making changes in production processes and adopting new technologies
- Moving toward cleaner processes that avoid the use and generation of toxic chemicals
- Changing raw materials to include benign or low toxicity materials that degrade into innocuous substances in the environment
- Using tools and design options in support of green chemistry
- Selecting and using safe alternatives

As part of this program, companies are encouraged to partner with state and local technical assistance programs. Such programs can help identify ways to reduce waste and emissions and move toward safer substitute chemicals, which can result in reduced costs, improved productivity, and regulatory compliance.

### **Challenge Program Benefits**

By making changes and participating in the Challenge Program, companies can:

- Improve employee health and safety
- Minimize risk and liability
- Institute supply chain initiatives
- Improve company image with the community
- Reward investments in the design of increasingly safer chemicals and products
- Reduce cost of compliance and employee protection
- Realize that alternatives may have improved performance
- Improve profitability

## **Target Chemical List**

Companies will develop their target chemical list in two steps: 1) include appropriate chemicals of high concern, and 2) add chemicals of concern specific to your industry or company operations.

Step 1: The following chemicals are of high concern as determined by the U.S. EPA and other organizations and should be considered for reduction or elimination by companies participating in the Challenge Program.

- Lead
- Mercury
- Chromium
- Cadmium
- Perchloroethylene
- Perfluorinated compounds (PFCs)
- Polybrominated diphenylethers (PBDEs)
- Hexabromocyclododecane (HBCD)
- Phthalates
- Bisphenol A (BPA)
- Short chain chlorinated paraffins
- Formaldehyde

Step 2: Select chemicals of concern specific to your industry sector or facility to target for reduction.

## **Program Reduction Goals (taking into account production ratio)**

- Document previous achievements since 2005 (baseline year)
- 10% by 2015
- 20% by 2020
- 25% by 2025

## **Steps to Participating in the Challenge Program**

Step 1. Make the commitment

- Develop and communicate a corporate policy statement indicating management commitment to eliminating or reducing the use of chemicals of concern and substitute safer alternatives
- Form a team with identified team leader to address the project and implications for the business

Step 2. Conduct an assessment

- Work to develop a comprehensive understanding (or inventory) of the chemicals used in processes and products at the facility
- Ask suppliers for data on chemical ingredients of products. Assess the hazardous constituents of the chemicals used
- Categorize chemicals into categories of high, moderate, low or unknown concern/use
- Utilize NPPR's member technical assistance program resources (see Resources section)

Step 3. Set performance goals

- Create a list of chemicals of concern specific to facility operations
- Prioritize chemicals for elimination or reduction, taking into account volume of use, toxicity, potential for exposure, public and/or governmental concern and customer demand
- Publicly share the list of priority chemicals of concern
- Establish elimination/reduction goals and schedules for the targeted chemicals list
- Describe achievements to date

#### Step 4. Create an action plan

- Identify and select alternatives (see Resources section for screening tools)
  - Conduct alternatives assessments for the target list of chemicals
  - Assess hazards and effectiveness of potential alternatives
  - Identify elimination/reduction opportunities, taking into account technical and cost considerations
- Focus initial elimination/reduction efforts on target list of chemicals for which safer alternatives are readily available
- For each priority chemical of concern, create a workplan with action steps, roles, and timelines

#### Step 5. Implement the action plan

- Utilize NPPR's member state technical assistance programs
- Utilize internal team to implement needed tasks

#### Step 6. Evaluate progress

- Establish a metrics system to track elimination/reduction efforts
- Measure and document results
- Publicly report on progress in achieving performance objectives
- Update goals and plan as necessary

#### Step 7. Recognize and communicate achievements

- Promote new and existing members (website, brochure, newsletter)
- Keep employees informed and publicize accomplishments
- Apply to NPPR MVP2 program
- Make use of state recognition programs
- Develop NPPR web profile, case studies, and success stories
- Develop press release, including notification of legislators
- Use special logo that designates the company as a Challenge Program participant
- Attend and present information at the National Environmental Sustainability Summit

### **Program resources**

- Tools for screening chemicals and selecting alternatives
  - Green Screen for Safer Chemicals:  
<http://www.cleanproduction.org/Green.Greenscreen.php>
  - P2Rx Rapid Response and other resources: P2rx.org
  - QCAP:
  - EPA Chemical Screening Tool for Exposures and Environmental Releases, ChemSTEER: <http://www.epa.gov/opptintr/exposure/pubs/chemsteer.htm>
  - EPA Design for the Environment (DfE):  
[http://www.epa.gov/dfe/alternative\\_assessments.html](http://www.epa.gov/dfe/alternative_assessments.html)
- NPPR Training and Technical Assistance resources
  - Summit sessions:
    - Emerging chemical policy in states
    - New/developing regulations on toxic chemicals
    - Interrelationship between toxics, energy, and GHGs, and technology development

- Process innovation
  - Green chemistry
- Training
  - On line training modules
  - Webinars
  - P2 101 training
  - E2 101 training
- Workgroups – Access to workgroup members with extensive background in chemicals policy development
  - Dialog between business and states via NPPR workgroups on topics related to regulation, policy, technology, training, etc.
- Technical assistance – staffed by scientists and engineers with experience assessing industrial processes
- Partners – access to other related expertise in energy efficiency, lean, supply chain, etc.

### **NPPR background**

For over 25 years, the NPPR has supported state, local, and tribal programs to develop, implement, and evaluate efforts to avoid, eliminate and reduce waste generated to air, land, and water. NPPR has been at the forefront of efforts to prevent pollution by promoting activities in product substitution, safer alternatives, and green chemistry. These are ongoing initiatives including technical assistance, information exchange, chemicals policy, forming partnerships, and education.

### **Requirements for Participation**

To qualify for participation, companies must have a systematic approach to eliminating the use of targeted chemicals, demonstrate results, and be recognized for results achieved. Businesses must meet the following criteria:

- Be a member of the National Pollution Prevention Roundtable
- Sign the commitment form on NPPR web site
- Utilize technical assistance provided to company from state programs to identify toxic chemical reduction opportunities
- Develop a plan for chemical reduction
  - Target chemical focus
  - Schedule
  - Action plan
- Conduct six-month reporting on progress
- Be available to be recognized at the 2011 National Environmental Sustainability Summit

## **Rolling out the Challenge Program**

- Develop proposal for and obtain funding
- Develop brochure and resource materials
- Partner with SAC, others?
- Post Challenge program on NPPR web site (8 step program)
  - Description
  - Commitment form
  - Template plan
  - Reporting form
- Oversee promotions and outreach
  - 2011 Summit debut
  - P<sub>2</sub>RESS and P<sub>2</sub>OST
  - P2Tech listserv
  - Mailings/emails
- Host webinar to walk through steps

## **Additional Partnering and Coordination Information**

- EPA Coordination and Collaboration
  - Hold Policy forums (Ken Zs ideas). Bring together industry, EPA and states to talk toxic chemicals reduction policy and green chemistry
  - Identify ways to address EPA strategic plan priorities
  - Identify educational outreach and technical assistance needs and funding opportunities
- Program sponsors: NPPR, US EPA, SAC, industry groups, NGOs, states
  - Determine organizational structure and divide up roles and responsibilities
  - Establish participation guidelines
  - Conduct outreach and recruitment
  - Review program performance and issue reports
  - Update program components when necessary
  - Create budget and seek funding support