

TSCA, as amended by
the Frank R. Lautenberg Chemical
Safety for the 21st Century Act:
Prioritization Procedural Rule

Wendy Cleland-Hamnett, Director
Office of Pollution Prevention and Toxics
August 10, 2016



Purpose of the Meeting

- EPA is seeking early public input on procedural rulemaking for prioritization under new TSCA
- All oral and written comments will be considered
- A summary of meeting and written comments will be included in docket
- EPA will be providing a brief background presentation on the prioritization approach taken before TSCA amendments

**This is not a proposal for the new procedural rule*



The New Law

- The “Frank R. Lautenberg Chemical Safety for the 21st Century Act” was signed by the President and went into effect on June 22, 2016
- Amends and updates the Toxic Substances Control Act of 1976



Major Improvements Related to Existing Chemicals

- Mandatory duty on EPA to evaluate existing chemicals with clear and enforceable deadlines
- Chemicals assessed against a risk-based safety standard
- Unreasonable risks identified in the risk evaluation must be eliminated
- Expanded authority to more quickly require development of chemical information when needed

Key Milestones

	New Chemicals	Existing Chemicals	Inventory / Nomenclature	CBI	Other	Fees
Day 1	Implement for all	- \$6 rules under development will address new standards - Risk Assessments – will address new standards		- Review CBI claims for chem ID w/in 90 days		
6 Months		-Publish List of 10 Risk Assessments underway for WP Chemicals -January 1 st of each year – updated plan for Risk Evaluations ** Proposed rule – prioritization and evaluation	Proposed rule – Active/Inactive		-Determine whether review small business definition warranted -Report to Congress on Capacity to Implement	**Proposed Rule
1 Year		-Final Rule: Prioritization Process -Final Rule: Risk Evaluation Process (including guidance for manufacturer requests) - Publish scope of first 10 risk evaluations	-Final Rule: Active/Inactive		--Establish SACC	**Final Rule
2 Year		-Negotiated Proposed Rule – Byproduct Reporting	-2½ years: Get active/inactive reports	-Rules re: CBI substantiation – 2.5 years -Guidance re: generic names	-Strategic Plan: Promote Alternative Test Methods -All policies, procedures, guidance needed	
3 Year		-3½ years -- 20 Risk Assessments underway (1/2 from WP, min) -20 Low Priorities identified -Proposed Rule – WorkPlan PBTs -Final Rule: Byproducts		-3½ years: Rule to establish plan for reviewing all CBI claims for active chemical IDs		
5 Year		-4 ½ years – Final Rule: PBTs		-Complete review of CBI claims for all active ChemIDs	-Report to Congress re: implementation of plan re: Alternative Methods	**Not a statutory deadline



Prioritization Requirements

- EPA must establish a risk-based process to identify whether a substance is a “high” or “low” priority for risk evaluation
 - *High-Priority.* The chemical may present an unreasonable risk of injury to health or the environment due to potential hazard and potential route of exposure, including to susceptible subpopulations
 - Subject to Risk Evaluation
 - *Low-Priority.* The chemical does not meet the standard for High-Priority
 - No further action; may move to high priority if new information



Prioritization Requirements

- Criteria and Considerations
 - 50% of High-Priority chemicals must come from Work Plan
 - Preference for those with persistence and bioaccumulation scores of 3, and known human carcinogens with high acute/chronic toxicity
 - Hazard, exposure, persistence, bioaccumulation, storage near drinking water, conditions of use and volume, and significant changes in conditions of use and volume
- Opportunities for Public Participation
 - Statute requires two 90-day public comment periods - one following Initiation and one following Proposed Designation
- Timing
 - Prioritization process - from initiation to final designation - must take between 9 and 12 months
- ❖ EPA must have the Prioritization procedural rule established by June 2017.
 - Interim milestone – proposed rule mid-December 2016



Next Steps

- EPA will consider oral feedback received today and written comments in the docket as we develop a proposal for the prioritization procedural rulemaking
- Next: background presentation on prioritization approach under TSCA prior to amendments; used to create the TSCA Work Plan
- *Not a proposal for the new procedural rule*

Work Plan Methodology for Chemical Assessments

Maria J. Doa, Ph.D., Director
Chemical Control Division, OPPT

August 10, 2016



TSCA WORK PLAN: METHODOLOGY

- **Step 1: Identification of potential candidate chemicals**
 - Key factors and sources identified potential candidates
 - Chemicals excluded from Step 2
- **Step 2: Screening**
 - Hazard
 - Exposure
 - Persistence/Bioaccumulation

TSCA WORK PLAN: STEP ONE

Focus of Work Plan: Factors

- Chemicals identified as potentially of concern for children's health (*e.g.*, chemicals with reproductive or developmental effects)
- Chemicals identified as neurotoxic
- Chemicals identified as persistent, bioaccumulative, and toxic (PBT)
- Chemicals identified as probable or known carcinogens
- Chemicals used in children's products
- Chemicals used in consumer products
- Chemicals detected in biomonitoring programs

TSCA WORK PLAN: STEP ONE

Factors and Authoritative Sources

- Known or probable carcinogen
 - IRIS Classification
 - 1986 A, B1; 1996 Known or probable, 1995/2005 Carcinogenic
 - IARC Group 1 or 2A
 - NTP Classification as Known Carcinogens
- Persistent, Bioaccumulative, Toxic Chemicals
 - TRI PBT Rule
 - Great Lakes Binational PBT
 - Canadian P, B and T (all three criteria met)
 - UNECE LRTAP POPs
 - UNEP Stockholm Convention POPs

TSCA WORK PLAN: STEP ONE

Factors and Authoritative Sources

- Children's Health
 - IRIS: RfD or RfC for reproductive or developmental effects
 - NTP CERHR: Infants Any Effect, Pregnant Women Any Effect
 - California Proposition 65: Reproductive
- Neurotoxicity
 - IRIS: RfD or RfC based on neurotoxic effects
- Children's Product Use
 - 2006 IUR: Reported in products intended for use by children
 - Washington State Children's List

TSCA WORK PLAN: STEP ONE

Factors and Authoritative Sources

- Biomonitoring
 - Addressed both human biomonitoring and environmental monitoring indicative of human exposure
 - NHANES
 - Drinking Water Contaminants
 - Fish Tissue Studies
- Step 1 identified 1,235 chemicals

TSCA WORK PLAN: STEP ONE

Excluded Chemicals

- Pesticides, drugs, radioactives
- Statutorily excluded under TSCA
- Already the subject of an Action Plan
 - Subject to regulation under development
- Complex process streams, other highly variable batches
- Polymers
- Common oils, fats, plant extracts
- Gases, naturally-occurring (only) chemicals, combustion products
- Explosive, pyrophoric, extremely reactive or corrosive
- Metals principally toxic to the environment
- Remaining 345 chemicals entered Step 2

TSCA WORK PLAN: STEP TWO

- Screening Exercise
- Weighed three factors equally
 - Hazard
 - Exposure
 - Persistence and Bioaccumulation
- Used readily available data
- Modeling, when needed
- Chemicals scored using numerical algorithm based on combination of these 3 characteristics

TSCA WORK PLAN: STEP TWO

Hazard

- Highest Hazard score for any single human health or environmental toxicity endpoint became chemical Hazard score
- Hazard classification criteria based on *DfE Alternatives Assessment Criteria for Hazard Evaluation*, August 2011
- Score based on readily available data
 - Screening-level review
 - If high score for any endpoint, identified as high

TSCA WORK PLAN: STEP TWO

Hazard

- Endpoints scored as High (3) Moderate (2) or Low (1)
 - Acute Mammalian Toxicity
 - Carcinogenicity (High includes presumed, suspected, likely)
 - Mutagenicity/Genotoxicity
 - Reproductive Toxicity
 - Developmental Toxicity
 - Neurotoxicity
 - Chronic Toxicity
 - Respiratory Sensitization
 - Acute Aquatic Toxicity
 - Chronic Aquatic Toxicity

TSCA WORK PLAN: STEP TWO

Exposure

- Exposure Score based on combination of:
 - Use Type
 - Likelihood of potential exposures based on use
 - Consumer products: consider form, how widespread use
 - Industrial/commercial uses: consider dispersives
 - General Population and Environmental Exposure
 - Measured data in biota, environmental media
 - Release to Environment
 - TRI data
 - Where no TRI, calculation using IUR/CDR production volume, number of sites, release potential from type of use
- Individual scores were summed and normalized to generate a use score (3, 2, 1)

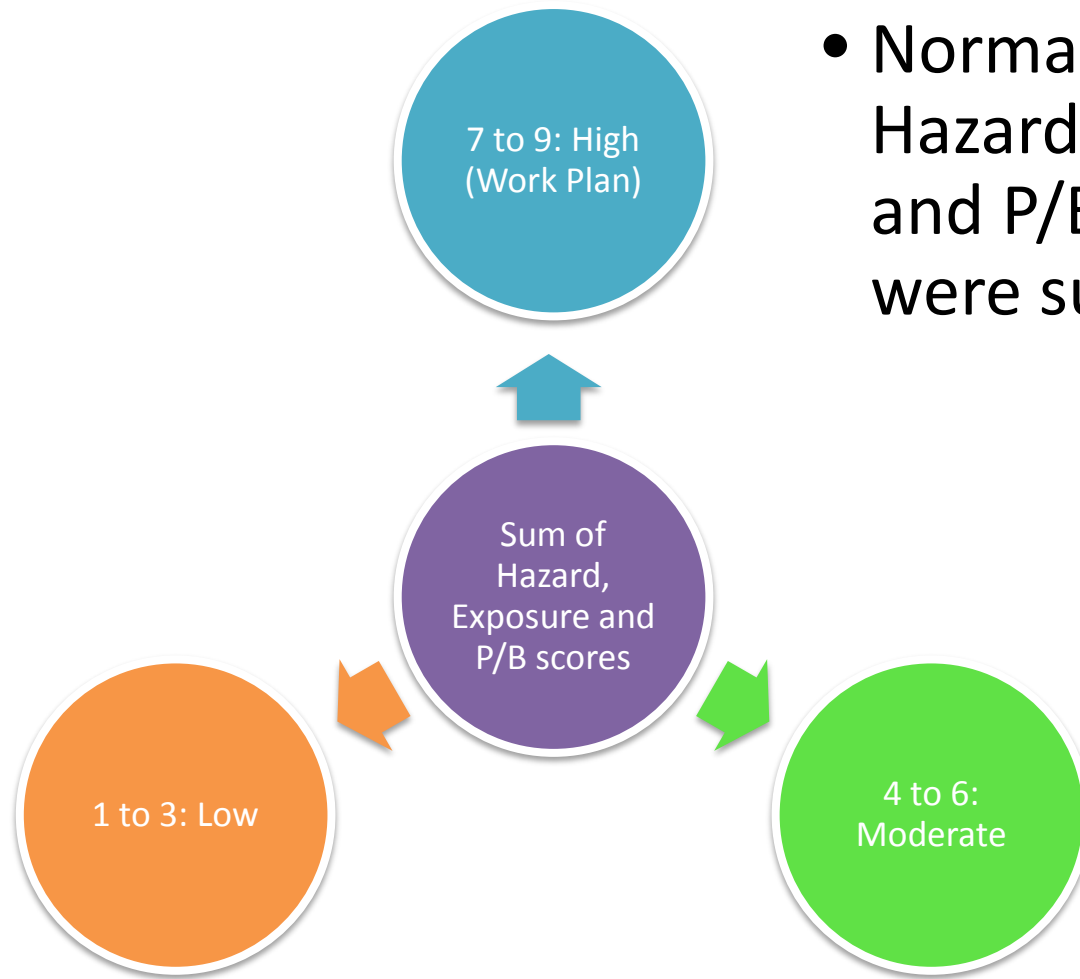
TSCA WORK PLAN: STEP TWO

Persistence and Bioaccumulation

- Used TRI and TSCA New Chemicals Program PBT criteria for ranking each factor separately
 - Persistence
 - Half-life > 6 months
 - Half-life \geq 2 months
 - Bioaccumulation
 - BCF or BAF > 5000
 - BCF or BAF \geq 1000
- Where no data, used EPI Suite 4.10 estimate
- Individual P and B scores were summed, then normalized to generate a P/B score (3, 2, 1)

TSCA WORK PLAN: STEP TWO

- Normalized Hazard, Exposure and P/B scores were summed



TSCA WORK PLAN

- *TSCA Work Plan Chemicals: Methods Document* published in February 2012
(https://www.epa.gov/sites/production/files/2014-03/documents/work_plan_methods_document_web_final.pdf)
- Work Plan published with *Methods Document* in 2012
- Work Plan scores updated in 2014
- Of the 345 chemicals which completed Step 1, 90 scored high after Step 2, based on 2014 update, and are considered Work Plan chemicals



Thank you!

To learn more about
EPA's Chemical Management &
Programs:

<http://www.epa.gov/oppt>



Public Meeting on the New TSCA Procedural Rulemaking for Chemical Prioritization

EPA will consider comments submitted to docket

EPA-HQ-OPPT-2016-0399

Submit comments at www.regulations.gov by August 24, 2016.

