Children's Health Protection Advisory Committee
Office of Children's Health Protection
February 1-2, 2017

CURRENT PUBLIC COMMENT OPPORTUNITIES

Proposed Rules on Process to Evaluate Chemicals that May Pose Risk under Amended TSCA
The final processes must be in place within the first year of enactment of the Frank R. Lautenberg Chemical Safety for the 21st Century Act amendments to The Toxic Substances Control Act (TSCA), or before June 22, 2017. When TSCA was enacted in 1976, it grandfathered in thousands of unevaluated chemicals that were in commerce at the time. The old law failed to provide EPA with the tools to evaluate chemicals and to require companies to generate and provide data on chemicals they produced. EPA is proposing three rules to help administer the new process. They are:

- **Inventory Rule Comments due March 14, 2017** There are currently over 85,000 chemicals on EPA's Inventory, many of these are no longer actively produced. The rule will require manufacturers, including importers, to notify EPA and the public on the number of chemicals still being produced. For more information, see: www.regulations.gov docket number HQ-OPPT-2016-0426.
- **Prioritization Rule Comments due March 20, 2017**. This will establish how EPA will prioritize chemicals for evaluation. EPA will use a risk-based screening process and criteria to identify whether a particular chemical is either high or low priority. A chemical designated as high-priority must undergo evaluation. Chemicals designated as low-priority are not required to undergo evaluation. For more information, see: www.regulations.gov docket number HQ-OPPT-2016-0636.
- **Risk Evaluation Rule Comments due March 20, 2017**. This will establish how EPA will evaluate the risk of existing chemicals. The agency will identify steps for the risk evaluation process, including publishing the scope of the assessment. Chemical hazards and exposures will be assessed along with characterizing and determining risks. This rule also outlines how the agency intends to seek public comment on chemical evaluations. For more information, see: www.regulations.gov docket number HQ-OPPT-2016-0654.

The proposals for both the Prioritization and Risk Evaluation rules describe provisions that address potentially exposed and susceptible subpopulations, which includes (but is not limited to) consideration of infants, children, and pregnant women. If EPA identifies unreasonable risk in the evaluation, it is required to eliminate that risk through regulations. Under TSCA the agency must have at least 20 ongoing risk evaluations by the end of 2019. For more information on TSCA, see: https://www.epa.gov/assessing-and-managing-chemicals-under-tsca/frank-r-lautenberg-chemical-safety-21st-century-act-5.

First 10 Chemicals Selected for Risk Evaluation under the Amended TSCA
TSCA requires that EPA choose the first 10 chemicals from the list of 90 chemicals on the 2014 Update to the TSCA Work Plan. TSCA Work Plan chemicals were selected based on their hazard

and the public's potential exposure, as well as other considerations such as persistence and bioaccumulation. In selecting the first 10 chemicals, EPA also took into account recommendations from the public, industry, environmental and public health groups, and members of Congress and tried to give weight to chemicals where work on assessing risks were underway. These chemicals are: 1, 4 Dioxane; 1-Bromopropane; Asbestos; Carbon Tetrachloride; Cyclic Aliphatic Bromide Cluster (HBCD); Methylene Chloride; N-Methylpyrolidone; Pigment Violet 29; Trichloroethylene; Tetrachloroethylene (also known as Perchloroethylene).

- **Public Meeting February 14, 2017**: EPA will hold a public meeting to receive input and information to assist the Agency in its efforts to establish the scope of risk evaluations under development for these ten chemical substances. In particular, EPA is providing the public an opportunity to identify information specifically related to the conditions of use for the ten chemical substances. EPA plans to use this information as it develops the scoping documents for the TSCA risk evaluations of the ten chemical substances.
    - Registration: To register online by February 10, 2017, go to: https://tscachemicaluse.eventbrite.com. On-site registration will be permitted, but seating and speaking priority will be given to those who pre-register by the deadline.
    - Comments: EPA will hear oral comments at the meeting, and will accept written comments and materials submitted to the dockets on or before March 1, 2017.

  For further information on this meeting, see: https://www.gpo.gov/fdsys/pkg/FR-2017-01-19/pdf/2017-01236.pdf
- **Scoping Documents**: By June 19, 2017, EPA will issue scoping documents that will include information about each of the ten chemical substances, such as the hazards, exposures, conditions of use, and the potentially exposed or susceptible subpopulations the Agency expects to consider in the risk evaluation.
- **Risk Evaluations:** TSCA generally requires that these chemical risk evaluations be completed within three years of initiation, allowing for a single 6-month extension.
- **Additional chemicals**: Additional chemicals will be designated for evaluation, and all of the remaining Work Plan chemicals will be reviewed for their potential hazard and exposure. For each risk evaluation that EPA completes, TSCA requires that EPA begin another. By the end of 2019, EPA must have at least 20 chemical risk valuations ongoing at any given time.

For more information, see: https://www.epa.gov/assessing-and-managing-chemicals-under-tsca/evaluating-risk-existing-chemicals-under-tsca and go to regulations.gov and search for docket EPA-HQ-OPPT-2016-0718.

Public Comment on EPA's Proposals to Ban Certain Uses of Trichloroethylene (TCE)

In late November, EPA announced the inclusion of TCE on the list of the first ten chemicals to be evaluated for risk under TSCA. That action will allow EPA to evaluate the other remaining uses of the chemical. TCE is a volatile organic compound widely used in industrial and commercial processes and has some limited uses in consumer and commercial products. EPA

has identified women of childbearing age and the developing fetus as a susceptible subpopulation relevant to its risk assessment for TCE. After evaluating the developmental toxicity literature for TCE, the Integrated Risk Information System (IRIS) TCE assessment concluded that fetal heart malformations are the most sensitive developmental toxicity endpoint associated with TCE inhalation exposure. In its TSCA Chemical Work Plan Risk Assessment for TCE, EPA identified developmental toxicity as the most sensitive endpoint for TCE inhalation exposure (i.e., fetal heart malformations) for the most sensitive human life stage (i.e., women of childbearing age between the ages of 16 and 49 years and the developing fetus). EPA used developmental toxicity endpoints for both the acute and chronic non-cancer risk assessments based on its developmental toxicity risk assessment policy that a single exposure of a chemical within a critical window of fetal development may produce adverse developmental effects. For more information, see https://www.epa.gov/assessing-and-managing-chemicals-under-tsca/trichloroethylene-tce

- **Public Comment by February 14, 2017 on EPA's Proposal to Ban Certain Aerosol Degreasers and Dry Cleaning Spot Removers.** The EPA is proposing to ban certain uses of the toxic chemical trichloroethylene (TCE) due to health risks when used as a degreaser and a spot removal agent in dry cleaning. The proposed regulatory action is protective of the fetal heart malformation endpoint and is also protective of cancer risk from chronic exposure. Specifically, the EPA is proposing to prohibit manufacture (including import), processing and distribution in commerce of TCE for use in aerosol degreasing and for use in spot cleaning in dry cleaning facilities. The agency is also proposing to require manufacturers, processors and distributors to notify retailers and others in their supply chains of the prohibitions. For more information, see www.regulations.gov and search for HQ-OPPT-2016-0163.
- **Public Comment by March 20, 2017, on EPA's Proposal to Ban the Use of Trichloroethylene (TCE) in Vapor Degreasing.** The EPA is proposing to ban the use of the toxic chemical trichloroethylene (TCE) due to health risks when used in vapor degreasing. The proposed regulatory action is protective of the fetal heart malformation endpoint and, for the exposed population as a whole, the proposal is also protective of cancer risk. Specifically, EPA is proposing to prohibit manufacture (including import), processing, and distribution in commerce of TCE for use in vapor degreasing. EPA is also proposing to require manufacturers, processors, and distributors to notify retailers and others in their supply chains of the prohibitions. For more information, see: www.regulations.gov and search for HQ-OPPT-2016-0387.

Public Comment by April 19, 2017 on EPA's Proposal to Limit the Use of Two Chemicals in Paint Removers

EPA is proposing to place limits on the use of two common chemicals in paint removers in order to protect consumers and workers from serious health risks associated with this use. The chemicals are methylene chloride and N-methylpyrrolidone (NMP).

- **Methylene Chloride:** There are many cases of people who have become ill or even died as a result of exposure to methylene chloride-containing paint removers. EPA, in a 2014 assessment, concluded that methylene chloride can cause a range of adverse health effects, including harm to the central nervous system, liver toxicity, and cancer. EPA is

now proposing to prohibit manufacture (including import), processing, and distribution in commerce of methylene chloride when used as a paint remover, except for commercial furniture refinishing which the Agency will address in a separate proposal. EPA is also proposing to require manufacturers, processors, and distributors to notify retailers and others in their supply chains of the prohibitions. To learn more about methylene chloride, see: https://www.epa.gov/assessing-and-managing-chemicals-under-tsca/methylene-chloride.

- **N-methylpyrrolidone (NMP):** EPA assessed NMP in 2015 and identified risks to people, particularly pregnant women and women of childbearing age, who have high exposure to NMP through paint or coating removal. EPA is inviting comments on two approaches to address the risks from NMP. One approach would prohibit manufacture (including import), processing, and distribution in commerce of NMP when used as a paint remover, as well as require various notification measures on the restrictions to downstream processors and users. The other approach would put in place a combination of requirements to address unreasonable risks, including limiting the amount of NMP in paint remover products, providing warning labels for consumers, and requiring workers to wear specialized gloves and other equipment. EPA is seeking comment on both approaches. In addition, EPA is proposing to exempt certain national security uses of methylene chloride and NMP from the requirements of this rule. To learn more about NMP, see: https://www.epa.gov/assessing-and-managing-chemicals-under-tsca/n-methylpyrrolidone-nmp.

For more information, see: https://www.gpo.gov/fdsys/pkg/FR-2017-01-19/pdf/2017-01222.pdf; and regulations.gov and searching for HQ-OPPT-2016-0231.

Second External Review Draft of Integrated Science Assessment for Sulfur Oxides – Health Criteria

EPA is seeking comment on the second external review draft Integrated Science Assessment (ISA) for Sulfur Oxides – Health Criteria. Sulfur oxides are one of six criteria pollutants for which the EPA has established National Ambient Air Quality Standard (NAAQS). The draft assessment was prepared as part of the review of the primary (health-based) NAAQS for sulfur dioxide (SO2). SO2 is linked with a number of adverse effects on the respiratory system, including bronchoconstriction and increased asthma symptoms. These effects are particularly important for children and adults with asthma while at elevated ventilation rates (e.g., while exercising or playing). Studies also show a connection between short-term exposure and increased visits to emergency departments and hospital admissions for respiratory illnesses, particularly in at-risk life stages such as children. In 2010, the EPA revised the primary (health-based) standard by establishing a one-hour standard at a level of 75 parts per billion (ppb).

- **Public Comment by March 20, 2017**: The public can submit comments on the draft ISA by March 20, 2017. For the draft ISA, see: https://www.epa.gov/isa/integrated-science-assessment-isa-sulfur-dioxide-health-criteria
- **Peer Review Meeting on March 20, 2017**: The document will undergo an independent peer review by the Clean Air Scientific Advisory Committee (CASAC) at a public meeting scheduled for March 20, 2017. Information on this meeting can be found here: https://yosemite.epa.gov/sab/sabpeople.nsf/WebCommittees/CASAC

Additional information on the SO2 NAAQS is available here: https://www.epa.gov/so2-pollution/setting-and-reviewing-standards-control-so2-pollution.

Public Comments until February 17, 2017 on Draft Recreational Ambient Water Quality Criteria and/or Swimming Advisories for Microcystin and Cylindrospermopsin

On December 12, 2016, the EPA issued draft recreational water quality criteria and/or swimming advisories for the cyanotoxins microcystin and cylindrospermopsin. The EPA has identified draft recommended concentrations of the cyanotoxins to protect human health while swimming or participating in other recreational activities in and on the water. Once final, states can consider adopting these criteria into their water quality standards and using them for Clean Water Act purposes. Alternatively, states can use these same values as the basis of swimming advisories for public notification purposes at beaches. The draft criteria and/or swimming advisories are based on peer-reviewed, published science and methods. Childhood is considered a vulnerable lifestage due to children's potential increased exposure while recreating. Recreating children can be at greater risk from exposure to microcystins or cylindrospermopsin because they have smaller body mass compared to adults, they spend more time in contact with the water compared to adults, and they incidentally ingest more water than adults while recreating. For more information, please visit: https://www.epa.gov/wqc/draft-human-health-recreational-ambient-water-quality-criteria-andor-swimming-advisories and https://www.gpo.gov/fdsys/pkg/FR-2016-12-19/pdf/2016-30464.pdf.

Peer Review Materials to Inform the Derivation of a Water Concentration Value for Lead in Drinking Water

The EPA is announcing the release of materials for public comment that relate to the expert external peer review of documents intended to support the EPA's Safe Drinking Water Act assessment of lead in drinking water.

- **Peer Reviewer Nominations by February 21, 2017**: EPA invites the public to nominate scientific experts to be considered as peer reviewers for the contract-managed peer review. The nominations for expert peer review candidates must be received by February 21, 2017.
- **Public Comment by March 6, 2017**: EPA requests public comment on the draft report entitled ''Proposed Modeling Approaches for a Health Based Benchmark for Lead in Drinking Water'' and the draft charge questions for the expert peer review panel. These materials will be reviewed by an expert peer review panel and public comments will be made available to the peer reviewers for consideration in their review. Comments on the draft lead modeling report and draft peer review panel charge questions must be received by March 6, 2017.
- **Peer Review Meeting**: A one-day or two-day peer review meeting in the Washington, DC metro area, is projected to occur in June 2017 (exact date and logistical information will be published in the Federal Register at least 30 days prior to the external peer review meeting).

For more information, see: https://www.gpo.gov/fdsys/pkg/FR-2017-01-19/pdf/2017-01228.pdf; and at regulations.gov search for EPA–HQ–OW–2016–0686.

Public Comment by July 18, 2017 on Health and Environmental Protection Standards for Uranium and Thorium Mill Tailings

EPA is proposing new health and environmental protection standards under the Uranium Mill Tailings Radiation Control Act (UMTRCA) of 1978. This proposed rule would strengthen the existing regulations for uranium recovery by adopting new standards addressing groundwater hazards specific to in-situ recovery (ISR) facilities. By setting new groundwater standards, which include improved monitoring and requirements to plan for and implement corrective measures for excursions and exceedances, this proposed rule reduces children's risk of exposure to contaminated groundwater. For more information, see: https://www.gpo.gov/fdsys/pkg/FR-2017-01-19/pdf/2017-00573.pdf; and regulations.gov by searching for EPA–HQ–OAR–2012–0788.

EPA and FDA Issue Final Fish Consumption Advice

On January 18, 2017, the EPA and FDA issued final advice regarding fish consumption. This advice is geared toward helping women who are pregnant or may become pregnant – as well as breastfeeding mothers and parents of young children – make informed choices when it comes to fish that are healthy and safe to eat. (This advice refers to fish and shellfish collectively as "fish.") To help these consumers more easily understand the types of fish to select, the agencies have created an easy-to-use reference chart that sorts 62 types of fish into three categories, including "Best Choices" (eat two to three servings a week); "Good Choices" (eat one serving a week); and "Fish to avoid." Fish in the "best Choices" category make up nearly 90 percent of fish eaten in the United States. The advice recommends two to three servings of lower-mercury fish per week, or 8 to 12 ounces. For adults, a typical serving is 4 ounces of fish, measured before cooking. Serving sizes for children should be smaller and adjusted for their age and total calorie needs. It is recommended that children eat fish once or twice a week, selected from a variety of fish types. The updated advice cautions parents of young children and certain women to avoid seven types of fish that typically have higher mercury levels: tilefish from the Gulf of Mexico; shark; swordfish; orange roughy; bigeye tuna; marlin; and king mackerel. For fish caught recreationally, consumers are urged to check for local advisories where they are fishing and gauge their fish consumption based on any local and state advisories for those waters. If no information on fishing advisories is available, eat just one fish meal a week from local waters and also, avoid other fish that week. Consumers should clean and trim the fish they catch of fat and skin, since locally-caught fish may contain contaminants besides mercury that can be reduced by proper trimming and cooking. All retailers, grocers and others are urged to post this new advice, including the reference chart listing fish to choose, prominently in their stores so consumers can make informed decisions when and where they purchase fish. The agencies will be implementing a consumer education campaign working with a wide array of public and private partners featuring the new advice. For more information, see: https://www.epa.gov/fish-tech/epa-fda-advice-about-eating-fish-and-shellfish.

PRESIDENT'S TASK FORCE ON ENVIRONMENTAL HEALTH RISKS AND SAFETY RISKS TO CHILDREN

Federal Strategy to Eliminate Lead from Children's Environments: In 2016 the Task Force developed and released the report *Key Federal Programs to Reduce Childhood Lead Exposures and Eliminate Associated Health Impacts*, which now serves as a platform to develop a new *Federal Strategy to Eliminate Lead from Children's Environments*. This strategy will address lead exposures from multiple sources, including paint, drinking water, soil, food and consumer products. A new lead subcommittee of the President's Task Force has more than 30 members from 10 federal agencies to develop the strategy. The subcommittee is co-chaired by the EPA, HHS and HUD. The first draft of the strategy is scheduled for Spring 2017. For the 2016 report, see:
https://ptfceh.niehs.nih.gov/features/assets/files/key_federal_programs_to_reduce_childhood_lead_exposures_and_eliminate_associated_health_impactspresidents_508.pdf

RESEARCH

Update on Federal Research on Recycled Tire Crumb Used on Playing Fields
On December 30, 2016, EPA, CDC/ATSDR and CPSC released a joint status report describing the federal research on recycled tire crumb used on playing fields. The status report includes the final peer-reviewed Literature Review/Gaps Analysis report and describes the progress to date on other research activities that are part of the effort, including characterization of the chemicals found in tire crumb; characterization of the exposure scenarios for those who use turf fields containing tire crumb; a study to better understand how children use playgrounds containing tire crumb; and outreach to key stakeholders. The status report does not include research findings. For the characterization of the chemicals research, tire crumb material was collected from nine tire crumb recycling plants, 19 synthetic turf fields located on U.S. Army installations and 21 community synthetic turf fields, including both indoor and outdoor fields around the U.S. Analysis of the tire crumb samples collected from fields and recycling facilities and the exposure characterization component of the study will continue in 2017. Parts of the exposure study may be conducted during the hotter months of 2017. The CPSC playground study also will continue in 2017. While this effort won't provide all the answers about whether synthetic turf fields are safe, it represents the first time that such a large study is being conducted across the U.S. The study will provide a better understanding of potential exposures that athletes and others may experience and will help answer some of the key questions that have been raised. Depending upon the findings, available resources and other considerations, additional research beyond the first year may be conducted. The joint status report can be found at https://www.epa.gov/chemical-research/december-2016-status-report-federal-research-action-plan-recycled-tire-crumb.

AIR QUALITY

Carbon Pollution Standards for Cars and Light Trucks to Remain Unchanged Through 2025

EPA finalized the decision to maintain the current greenhouse gas (GHG) emissions standards for model years 2022-2025 cars and light trucks. The final determination finds that a wide variety of effective technologies are available to reduce GHG emissions from cars and light

trucks, and that automakers are well positioned to meet the standards through model year 2025 at lower costs than predicted. The standards are projected to result in average fleet-wide consumer fuel economy sticker values of 36 miles per gallon (mpg) by model year 2025, 10 mpg higher than the current fleet average. Since the first year of the GHG standards, manufacturers have been developing and adopting fuel economy technologies at unprecedented rates. At the same time, the American car industry has been thriving. Since 2010, the industry has had seven consecutive years of sales growth, with 2016 setting a record high for vehicle sales. The Administrator is retaining the current standards to provide regulatory certainty for the auto industry despite a technical record that suggests the standards could be made more stringent. Retaining the current standards preserves the significant cuts in harmful carbon pollution expected from the original standards, and provides regulatory certainty for this global industry that must meet similar standards in other markets including Canada and Europe. The Midterm Evaluation process was established as a part of the 2012 final greenhouse gas emissions standards for model years 2017-2025. This decision follows the Proposed Determination issued by the EPA Administrator in November 2016, and the Draft Technical Assessment Report, issued jointly by the EPA, the National Highway Traffic Safety Administration (NHTSA), and the California Air Resources Board (CARB) in July 2016. The Administrator considered the extensive public input on both these documents in reaching her final determination. For more information, go to: https://www.epa.gov/regulations-emissions-vehicles-and-engines/midterm-evaluation-light-duty-vehicle-greenhouse-gas-ghg

National Ambient Air Quality Standards (NAAQS) for Nitrogen Dioxide (NO2)

Children are at increased risk for asthma exacerbations from short-term exposure and asthma development from long-term exposure to ambient NO2 concentrations. The EPA drafted an updated NO2 Policy Assessment (PA) in September. On November 9-10, 2016 and January 24, 2017, the Chartered Clean Air Scientific Advisory Committee (CASAC) and CASAC Oxides of Nitrogen Primary NAAQS Review Panel met to discuss the September draft of EPA's Policy Assessment. For the draft PA, see: https://yosemite.epa.gov/sab/sabproduct.nsf/0/DA69AD128DDA195085258037004E1097/$File/NO2%20PA_external%20review%20draft.pdf. For more information on CASAC, see: https://yosemite.epa.gov/sab/sabproduct.nsf//LookupWebProjectsCurrentCASAC/DA69AD128DDA195085258037004E1097?OpenDocument

National Ambient Air Quality Standards (NAAQS) for Particulate Matter (PM)

On December 5, 2016, EPA released the final Integrated Review Plan (IRP) for PM. The PM Integrated Science Assessment (ISA) will evaluate an array of factors that may contribute to increased risk of PM-related health effects for various lifestages or populations. The 2009 PM ISA evaluated studies that provided evidence that children, older adults, people with pre-existing cardiopulmonary diseases, and people with lower SES are at increased risk of PM-related health effects. Since completion of the 2009 PM ISA, the EPA has developed a more detailed framework to provide a consistent and transparent basis for communicating the overall confidence in the evidence that a particular factor may increase the risk of an air pollutant-related health effect for a lifestage or population according to one of four levels: adequate evidence, suggestive evidence, inadequate evidence, and evidence of no effect. The

assessment of public health impact also may include, as appropriate, an estimation of the sizes of potential at-risk lifestages and populations. The next steps will be the release of a first draft for the Integrated Science Assessment (ISA) and Risk and Exposure Assessment (REA) Planning Documents later in 2017. For the draft IRP, see: https://www.epa.gov/naaqs/particulate-matter-pm-standards-planning-documents-current-review.

Rebates to Reduce Diesel Emissions from School Buses:
The EPA recently awarded more than $7.7 million to replace or retrofit 401 older diesel school buses. The funds will go to 88 school bus fleets in 27 states, each of which will receive rebates through the EPA's Diesel Emissions Reduction Act (DERA) funding. The new and retrofitted buses will reduce pollutants that are linked to health problems such as asthma and lung damage. Applicants replacing buses with engine model years of 2006 and older will receive rebates between $15,000 and $25,000, depending on the size of the bus. Applicants also have the option of retrofitting school buses with engine model years between 1994 to 2006 with a diesel oxidation catalyst plus closed crankcase ventilation system (DOC plus CCV) to reduce toxic emissions. The EPA will fully fund the cost of these devices up to $4,000. The EPA has implemented standards to make newer diesel engines more than 90 percent cleaner, but many older diesel school buses are still operating. These older diesel engines emit large amounts of pollutants such as nitrogen oxides and particulate matter, which are linked to instances of aggravated asthma, lung damage and other serious health problems. Since 2008, the DERA program has funded more than 700 clean-diesel projects across the country, reducing emissions in more than 70,000 engines. To view the 2016 DERA school bus rebate recipients, see: https://www.epa.gov/cleandiesel/clean-diesel-rebates

CHEMICALS

Final IRIS Assessments: The EPA's Integrated Risk Information System (IRIS) Program has recently finalized the following IRIS Assessments:

- **Ethylene Oxide (EtO) – Cancer (Inhalation only):** In December 2016, EPA released the final IRIS assessment *Evaluation of the Inhalation Carcinogenicity of Ethylene Oxide* (EPA/635/R-16/350F). EtO is manufactured from ethylene and is a chemical intermediate in the manufacturing of various chemicals. EtO is also used as a sterilizing agent for medical and dental equipment and as a fumigating agent for spices and other items. The final assessment addresses the carcinogenicity of ethylene oxide from chronic inhalation exposure and provides an inhalation unit risk, which is an estimate of cancer potency. The assessment concludes that EtO is carcinogenic to humans. For more information, see: https://cfpub.epa.gov/ncea/iris2/chemicalLanding.cfm?substance_nmbr=1025
- **Benzo[a]pyrene:** On January 19, 2017, EPA released the final IRIS assessment of Benzo[a]pyrene (BaP). BaP is a five-ring polycyclic aromatic hydrocarbon that is released into the atmosphere as a component of smoke from industrial processes, vehicle exhaust, cigarettes, and through the burning of various materials (such as wood, coal, petroleum products, and biomass). The final assessment addresses cancer and non-cancer effects of BaP from inhalation and oral exposure. This assessment updates the

IRIS assessment of BaP that was developed in 1987. For more information, see: https://cfpub.epa.gov/ncea/iris2/chemicalLanding.cfm?substance_nmbr=136

Updated List of Human Health Benchmarks for Pesticides in Drinking Water Available

EPA has updated its list of human health benchmarks for pesticides (HHBP) in drinking water. A total of 394 HHBPs are now available for pesticides that are currently registered for use on food crops. EPA develops these benchmarks as screening levels for use by states and water systems in determining whether the detection of a pesticide in drinking water or a drinking water source may indicate a potential health risk. All benchmarks were calculated with updated exposure assumptions related to body weight and drinking water intake, and are now inclusive of the Food Quality Protection Act safety factor. For more information, see: https://iaspub.epa.gov/apex/pesticides/f?p=HHBP:home

EPA Finalizes Human Health Risk Assessment for Tetrachlorvinphos Used on Pets

On January 4, 2017, EPA finalized the human health risk assessment of tetrachlorvinphos (TCVP), which is an organophosphate insecticide used to control fleas, ticks and other pests on and around pets and livestock. It is used in residential products like pet collars. Through the publication of the revised human health risk assessment and related documents, EPA is addressing a 2009 Natural Resource Defense Council petition. This risk assessment identified potential risks to people, including children, in residential settings and to certain workers applying TCVP, which exceed the agency's level of concern. The agency has contacted the pesticide manufacturers to initiate discussions with them to reduce exposure and resolve potential risks identified in the human health risk assessment. The agency will issue a proposed decision in 2017 for public comment. Until that time, it is important to follow label instructions on proper use of pesticide products. The EPA advises consumers to take certain precautions when handling TCVP products in residential areas. These precautions are listed on TCVP product labels, including not allowing children to play with TCVP pet collar products; keeping TCVP spray and powder products out of reach of children; and washing hands thoroughly with soap and water after handling. For more information, see: https://www.epa.gov/ingredients-used-pesticide-products/tetrachlorvinphos-tcvp; and regulations.gov at docket number EPA-HQ-OPP-2008-0316.

EPA Takes Action to Prevent Poisonings from Paraquat

On December 15, 2016, EPA announced final safety measures to stop poisonings caused by ingestion of the herbicide paraquat, which can also cause severe injuries or death from skin or eye exposure. Paraquat is one of the most widely used herbicides in the U.S. for the control of weeds in many agricultural and non-agricultural settings and is also used as a defoliant on crops such as cotton prior to harvest. Since 2000, there have been 17 deaths – three involving children – caused by accidental ingestion of paraquat. These cases have resulted from the pesticide being illegally transferred to beverage containers and later mistaken for a drink and consumed. A single sip can be fatal. To prevent these tragedies, the EPA is requiring new closed-system packaging designed to make it impossible to transfer or remove the pesticide except directly into the proper application equipment; special training for certified applicators who use paraquat to emphasize that the chemical must not be transferred to or stored in

improper containers; and changes to the pesticide label and warning materials to highlight the toxicity and risks associated with paraquat. In addition to the deaths by accidental ingestion, since 2000 there have been three deaths and many severe injuries caused by the pesticide getting onto the skin or into the eyes of those working with the herbicide. To reduce exposure to workers who mix, load and apply paraquat, the EPA is restricting the use of paraquat to certified pesticide applicators only. Uncertified individuals working under the supervision of a certified applicator will be prohibited from using paraquat. For more information, see https://www.epa.gov/ingredients-used-pesticide-products/paraquat-dichloride; and docket EPA-HQ-OPP-2011-0855-0112 at regulations.gov.

Final Drinking Water Contaminant Candidate List 4 Announced

On November 17, 2016, the EPA announced the fourth list of currently unregulated contaminants that may pose risks for drinking water (referred to as the Contaminant Candidate List, or CCL). The Safe Drinking Water Act (SDWA), as amended in 1996, requires the EPA to publish a list every five years. Contaminants listed on this fourth CCL may be of importance to children's health. This list is subsequently used to make regulatory determinations on whether or not to regulate at least five contaminants from the CCL with national primary drinking water regulations. The EPA recently published a final list of contaminants that are currently not subject to any proposed or promulgated national primary drinking water regulation. These contaminants are known or anticipated to occur in public water systems and may require regulation under the SDWA. This list is the Fourth Contaminant Candidate List (CCL 4) published by EPA since the SDWA amendments of 1996. This Final CCL 4 includes 97 chemicals or chemical groups and 12 microbial contaminants. Regulatory Determination for contaminants on the CCL is a separate agency action. For more information, see; https://www.epa.gov/ccl/contaminant-candidate-list-4-ccl-4-0; and regulations.gov docket EPA-HQ-OW-2012-0217.

3rd Six-Year Review of Existing Drinking Water Regulations

On January 11, 2017, EPA published the third review of existing drinking water regulations, of required under the Safe Drinking Water Act every six years. EPA found that eight drinking water contaminants will move forward to a regulatory revision. These include: chlorite, cryptosporidium, haloacetic acids, heterotrophic bacteria, giardia lamblia, legionella, total trihalomethanes, and viruses. These regulatory revisions are intended to further reduce the risk of cancer from disinfection byproducts, and reduce the risk of waterborne illness from bacteria/viruses/parasites. The existing fluoride regulation was not a candidate for revision under the six-year review because it would "divert significant resources from the higher priority candidates for revision that the Agency has identified, as well as other high priority work within the drinking water Office." For more information, see: https://www.epa.gov/dwsixyearreview/six-year-review-3-drinking-water-standards.

Final Rule on Formaldehyde Emission Standards for Composite Wood Products

On December 12, 2016, EPA issued a final rule to implement the Formaldehyde Standards for Composite Wood Products Act, which added Title VI to the Toxic Substances Control Act (TSCA). The final rule will be effective on February 10, 2017. The purpose of TSCA Title VI is to reduce

formaldehyde emissions from composite wood products, which will reduce exposures to formaldehyde and result in benefits from avoided adverse health effects. Inhalation of formaldehyde results in nose and eye irritation in children and adults, decreased pulmonary function and increased asthma incidence in children, and increased time to pregnancy. For more information, see: https://www.gpo.gov/fdsys/pkg/FR-2016-12-12/pdf/2016-27987.pdf.

Unregulated Contaminant Monitoring Rule (UCMR) for Public Water Systems

Unregulated Contaminant Monitoring Rule (UCMR) provides the EPA and other interested parties with scientifically valid data on the occurrence of particular contaminants in drinking water. This data set is a primary source of occurrence and exposure data that the EPA uses in its determination of whether or not to regulate drinking water contaminants to protect public health.

- **Final Rule:** On December 20, 2016, EPA published the fourth UCMR. The EPA considered children's health risks during the development of UCMR 4, including the decision-making process for prioritizing candidate contaminants. This rule identifies eleven analytical methods to support water system monitoring for a total of 30 chemical contaminants, consisting of nine cyanotoxins and one cyanotoxin group; two metals; eight pesticides plus one pesticide manufacturing byproduct; three brominated haloacetic acid disinfection byproducts groups; three alcohols; and three semivolatile organic chemicals. For more information, see https://www.gpo.gov/fdsys/pkg/FR-2016-12-20/pdf/2016-30469.pdf; and https://www.epa.gov/dwucmr/fourth-unregulated-contaminant-monitoring-rule.
- **Public Stakeholder Meeting and Webinar on April 12, 2017:** EPA will hold a public stakeholder meeting in Washington, DC on April 12, 2017. Attendees can participate in person or via webinar. Topics will include the final UCMR 4 requirements for monitoring, sampling and reporting, analytical methods, the laboratory approval process, ground water representative monitoring plans and consecutive system monitoring plans. For more information, see: https://www.epa.gov/dwucmr/unregulated-contaminant-monitoring-rule-ucmr-meetings-and-materials. To register for the stakeholder meeting by April 7, 2017, please visit https://www.eventbrite.com/e/ucmr-4-public-stakeholder-meeting-registration-28264984329.

Perchlorate Contamination of Drinking Water:

On January 10-11, 2017, an external peer review meeting was held on EPA's draft Biologically Based Dose-Response (BBDR) Model for perchlorate in drinking water and an accompanying draft model report. The draft model report is entitled "Biologically Based Dose-Response Models for the Effect of Perchlorate on Thyroid Hormones in the Infant, Breast Feeding Mother, Pregnant Mother, and Fetus: Model Development, Revision, and Preliminary Dose-Response Analyses." Once the BBDR peer review report is complete, the Agency expects to seek a follow-on peer review of a second agency report that evaluates methods to apply the BBDR model to develop a Maximum Contaminant Level Goal for perchlorate in drinking water. For more information, see: https://www.epa.gov/dwstandardsregulations/perchlorate-drinking-water; and www.regulations.gov and search for dockets EPA-HQ-OW-2016-0438 and EPA-HQ-OW-2016-0439.

Revised Federal Policy for Protection of Human Subjects

on January 19, 2017, a revised Federal Policy for Protection of Human Subjects covering multiple federal agencies including the EPA. in an effort to modernize, simplify, and enhance the current system of oversight. This rule includes additional safeguards to insure protection of subjects likely to be vulnerable to coercion or undue influence, such as children and individuals with impaired decision-making capacity, or economically or educationally disadvantaged persons. The final rule makes the following significant changes to the Common Rule:

- Establishes new requirements regarding the information that must be given to prospective research subjects as part of the informed consent process.
- Allows the use of broad consent (i.e., seeking prospective consent to unspecified future research) from a subject for storage, maintenance, and secondary research use of identifiable private information and identifiable bio-specimens.
- Establishes new exempt categories of research based on their risk profile. Under some of the new categories, exempt research would be required to undergo limited IRB review to ensure that there are adequate privacy safeguards for identifiable private information and identifiable bio-specimens.
- Creates a requirement for U.S.-based institutions engaged in cooperative research to use a single IRB for that portion of the research that takes place within the United States, with certain exceptions. Removes the requirement to conduct continuing review of ongoing research for studies that undergo expedited review and for studies that have completed study interventions and are merely analyzing study data or involve only observational follow up in conjunction with standard clinical care.

For more information, see https://www.gpo.gov/fdsys/pkg/FR-2017-01-19/pdf/2017-01058.pdf.

Revision to the Protective Action Guide (PAG) Manual for Drinking Water After a Radiological Incident

EPA is announcing that it has amended Chapter 4 of the 2016 Protective Action Guide (PAG) Manual to incorporate guidance for radiation protection decisions concerning drinking water. The drinking water PAG is guidance only and is intended for use by federal, state and local emergency management officials in the unlikely event of significant radiological contamination incidents which may last for weeks to months but not longer than one year. When possible, the drinking water PAG recommendations should be based on an additional level of protection to sensitive life-stages. For short-term incidents, as explained in the PAG Manual, it is appropriate to have a 500 mrem PAG level for drinking water for the general population and a lower-tier PAG level of 100 mrem for persons at sensitive life-stages, including pregnant women, nursing women, and children 15 years old and under. For more information: see https://www.gpo.gov/fdsys/pkg/FR-2017-01-19/pdf/2017-01230.pdf; and www.regulations.gov and search for docket EPA–HQ–OAR–2007–0268.