COMMENTS ON EPA'S PROPOSED CARBON TETRACHLORIDE REGULATION UNDER THE TOXIC SUBSTANCES CONTROL ACT

Docket ID: EPA-HQ-OPPT-2020-0592

September 11, 2023

These comments are submitted jointly by the American Federation of Labor and Congress of Industrial Organizations (AFL-CIO) and the United Steelworkers (USW). The AFL-CIO is the federation of 60 national and international labor unions representing 12.5 million working people across a wide variety of industries. The USW is North America's largest industrial union, representing 1.2 million members and retirees in many industries throughout the United States, Canada and the Caribbean.

These comments focus on EPA's approach to risk management of *occupational* exposures to carbon tetrachloride (CTC). After decades investigating health and safety conditions in workplaces, having hands-on involvement with the development and implementation of Occupational Safety and Health Administration (OSHA) regulation of workplace exposures to toxicants, and bargaining on behalf of our members, we have critical information and experience that other stakeholders lack about occupational health issues and OSHA regulation of these issues. We therefore are in a unique position to provide EPA with an understanding of chemical hazards such as CTC in this country's workplaces and to help EPA align its CTC risk management rules with OSHA policy so the two complement each other. Our comments focus on those issues.[1]

[1] Our expertise lies in practical and policy issues affecting *occupational* exposure to chemicals. We defer to the expertise of other groups in preventing unreasonable risk to the environment and other affected populations, such as the fenceline communities where many of our members and other workers reside.

We commend EPA for its goal of protecting all workers from the unreasonable risks CTC poses. CTC has been banned in consumer uses since the 1970s, yet workers have been largely unprotected as it has remained in industrial uses. Effective regulation of CTC occupational exposures is long overdue: OSHA's permissible exposure limit (PEL) of 10 ppm is woefully out of date and does not include the other comprehensive control and protective measures that EPA is proposing under a workplace chemical protection program (WCPP). However, in its previous TSCA risk management proposals, EPA has proposed to ban particular conditions of use of a chemical when it lacked evidence that owners/operators could meet the existing chemical exposure limit (ECEL) without reliance on respirators or other PPE. EPA's proposed risk management rule for CTC differs from these earlier proposals. Here, EPA states that it lacks data to show that most owners/operators can meet its proposed ECEL of 0.03 ppm, but EPA has not proposed prohibiting those conditions of use. EPA has not adequately explained this shift in approach.

In those commercial settings in which CTC will continue to be permitted, we strongly support EPA's proposal to require the entities responsible for those workplaces to implement a WCPP and EPA's efforts to align those programs with existing OSHA requirements, albeit at the lower exposure levels EPA has found to pose unreasonable health risks to workers. We commend EPA for its proposal that all owners/operators continuing to produce, use or dispose of CTC must meet the ECEL through primary reliance on substitution, engineering and administrative controls. However, we are concerned that EPA is proposing to permit certain conditions of use where it lacks evidence that owners/operators can meet an ECEL of 0.03 ppm without substantial reliance on respirators or other PPE. Under no circumstances should EPA accept the mistaken premise that reliance on PPE is an effective means to "eliminate

unreasonable risk," as TSCA requires. For this reason, we strenuously oppose EPA's primary regulatory alternative, which would permit increased reliance on respirators and dermal PPE to control occupational CTC exposure. And we urge EPA to reconsider permitting continued use of CTC in those circumstances in which it lacks evidence that exposures can be effectively controlled without substantial reliance on PPE.

Our comments proceed in four parts. First, we describe relevant OSHA practices and legal interpretations of the Occupational Safety & Health Act of 1970 (OSH Act),[2] pointing out approaches we believe EPA should adopt in developing its CTC risk management rule, as well as areas in which EPA has responsibility to act where OSHA's current regulations fall short. Second, we describe the criteria we believe EPA should use to determine when to prohibit CTC for a specific condition of use and when to permit its continued use, under regulated conditions. Third, we offer detailed comments on EPA's proposed risk management rule, section-by-section. Finally, we provide comments on several questions EPA's proposal raises.

At the outset, we address three overriding failings of the proposed risk management rule. First, as in earlier risk management proposals, EPA's approach to worker participation in the proposed CTC rule is inadequate. EPA's overall failure to identify workers and their collective bargaining representatives as stakeholders and to appreciate the importance of genuine, meaningful worker participation in devising and implementing occupational exposure control strategies is likely the result of the agency's failure to reach out to worker representatives in developing of its risk management proposals.[3] Workers know how chemicals are used, where emissions are highest and where well-intended processes are faulty. They fall victim to a

[2] 29 U.S.C. §§ 651 *et seq*.
[3] While EPA reached out to many groups, see 88 Fed. Reg. 49198, it failed to contact unions about its proposals.

chemical's health effects when unreasonable risks are not controlled. They work with the regulated chemicals every day and know which equipment is effective in controlling emissions in the real world and which equipment is not. Unfortunately, EPA has not recognized the essential contribution that workers, unions, and other employee representatives can make in identifying hazardous work operations and ways to reduce hazardous exposures.

OSHA recognizes that unions play an important role in protecting worker safety and health, and its standards routinely provide unions with access to information about toxic exposures. The Mine Safety and Health Administration goes even further, where miners' representatives have the same broad access to information and participations rights that miners do on toxic exposures, monitoring, training, implemented controls and other processes and records. Information about any administrative controls used at a worksite are also required to be posted in the workplace.[4,5] But nothing in EPA's proposal requires owners or operators to include workers or their representatives in the development of their plans. EPA should recognize the critical role of workers and their designated representatives in ensuring effective control of toxic substances and *require* that owners/operators consult with workers *and their designated representatives* in developing and implementing their plans. EPA must also require that both workers *and their designated representatives* have access to the WCPP upon request, consistent with the requirements of other federal occupational safety and health agencies.

Moreover, while EPA's proposal requires owners/operators to notify workers of monitoring results, it fails to ensure that worker representatives, such as unions, receive those

[4] U.S. Mine Safety and Health Administration. A Guide for Miners' Representatives. 2013. https://arlweb.msha.gov/MinersRepGuide/MinersRepGuide2013.pdf
[5] U.S. Mine Safety and Health Administration. A Guide to Miners' Rights and Responsibilities Under the Federal Mine Safety and Health Act of 1977. Rev. 2017. https://arlweb.msha.gov/S&HINFO/minersrights/MinersRights.pdf

results as well.[6] The proposed risk management rule also does not make clear worker representatives' rights to access information about exposures, as required by OSHA's access standard.[7] Worker participation, and the participation of their representatives, without fear of retaliation or discrimination, is critical for effective implementation of workplace safety and health rules and can and should be built into the process. Throughout these comments, we identify areas where EPA's control strategy should be better aligned with OSHA's framework on the rights, access and participation of workers and their representatives.

Second, while EPA repeatedly stresses that its risk management rule incorporates the hierarchy of controls,[8] it also alludes to the continued, regular use of respirators under the WCPP.[9] EPA has, moreover, proposed increased reliance on respirators as one of its alternative regulatory actions, an alternative that is completely unacceptable.

Routine reliance on respirators to protect workers from chemical exposures is not an effective alternative to engineering or other workplace controls. OSHA has consistently found respirators to be unreliable as protection against harmful chemicals, warning that respirators are "uncomfortable to wear, cumbersome to use, and interfere with communication in the workplace, which can often be critical to maintaining safety and health."[10] Courts have upheld OSHA's

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[6] 88 Fed.Reg. at 49224.
[7] 29 CFR 1910.1020.
[8] *See* 88 Fed.Reg. at 49182 (EPA would permit consideration of respirators and dermal PPE after all other steps have been taken to reduce exposures using other and more effective controls in the hierarchy); *id.* at 49186 (EPA's approach would not rely solely or primarily on the use of respirators and dermal PPE to address unreasonable risk to workers); *id.* at 49197 (owners/operators must use engineering and work practice controls to the lowest levels achievable and only then may they resort to reliance on respirators).
[9] 88 Fed.Reg. at 49207 (EPA identified air supplied respirators with an APF of 10, 25, and 50, depending on the condition of use, as the minimum necessary to eliminate unreasonable risk); *id.* at 49213 (EPA's economic analysis assumes firms will provide PPE to employees when monitoring thresholds are exceeded). In both these instances, EPA has no information to suggest that engineering and administrative controls have been implemented to reduce exposures to the lowest feasible level and suggests that continued respirator use will be acceptable.
[10] *See, e.g.,* Occupational Exposure to Methylene Chloride. 62 Fed. Reg. 1494, 1583 (Jan. 10, 1997); Occupational Exposure to Asbestos, Tremolite, Anthophyllite, and Actinolite, 51 Fed. Reg. 22,612,

findings that respirators are "woefully inadequate" to protect workers due to "problems with adequate facial fit, increased heat stress, reduced vision, increased breathing resistance, speech limitation, limited mobility, and excess weight."[11] Any regulatory approach that would permit routine respirator use beyond the limited time necessary to install other controls or where other controls are infeasible would be an unprecedented and unjustified reversal of decades of occupational health policy and practice.

Since OSHA's PEL for CTC has been 10 ppm for the last 50 years, it is particularly important that EPA make clear to owners/operators that, to meet the new ECEL, they may have to implement more effective engineering and administrative controls and cannot simply fall back on respirators. While EPA "recognizes" that some owners/operators will need to implement additional engineering controls to meet the ECEL,[12] EPA's economic analysis suggests that the only cost of the proposed risk management rule is the cost of improved respiratory protection.[13] But, EPA has no reason to assume that current practices rely on all feasible engineering and administrative controls to reduce CTC exposures to 0.03 ppm when the existing legal limit for occupational CTC exposure is 10 ppm. EPA must make clear that its approach to the hierarchy of controls is consistent with the approach OSHA has taken in regulation since its inception and with well-established industrial hygiene policy and practice. In other words, owner/operators that cannot eliminate or substitute CTC must implement some combination of engineering and administrative controls to reduce CTC exposures to 0.03 ppm or to the lowest levels that those

22,693 (June 20, 1986) (describing the limits of respirator use); Occupational Exposure to Respirable Silica, 81 Fed. Reg. 16,286, 16,293 (Mar. 25, 2016) (describing how OSHA health standards generally rely on the hierarchy of controls and limit respirator use).

[11] *Pub. Citizen Health Rsch. Grp. v. U.S. Dep't of Lab.*, 557 F.3d 165, 179 (3rd Cir. 2009) (discussing why respirators are strongly disfavored).

[12] 88 Fed. Reg. 49195.

[13] 88 Fed. Reg. 49182 (EPA calculates no costs for engineering controls to meet the ECEL); 88 Fed. Reg. 49183 (EPA calculates only costs for respirators with varying APFs)

controls can achieve and may rely on respirators only when—in alignment with OSHA policy—all feasible engineering, work practice and administrative controls are in place and still do not achieve the ECEL. We object to respirator use except in that limited circumstance.

Finally, EPA should attempt to use the same terminology for regulating occupational exposures that both OSHA and NIOSH routinely use, where appropriate. Some different terminology is mandated by statute (*e.g.,* OSHA regulates industries and workplaces; EPA regulates conditions of use). However, where it is not mandated, the use of undefined new terms will create unnecessary confusion. In particular, OSHA distinguishes between "performance-oriented standards," which allow the regulated entity to adopt the compliance approach that best suits its facility, and "specification standards," which dictate the exact technology or PPE employers must use to comply with a rule (such as fume hoods in laboratories). Sometimes, OSHA's regulatory approach is a combination of both. Presumably, EPA's use of the term "prescriptive controls" is intended to refer (in OSHA terms) to "specification standards," but without a definition, the term may leave the regulated community confused about how EPA's standards compare with OSHA's.

I. The Limits of OSHA CTC Regulation

OSHA adopted a CTC PEL of 10 ppm in 1971 under section 6(a) of the OSH Act,[14] based on science that was outdated even then. In 1989, OSHA published updated PELs for more than 400 substances, including a reduced PEL for CTC of 2 ppm. OSHA's effort to update all of its outdated PELs in that one rulemaking was invalidated by the 11th Circuit.[15] OSHA has made

[14] Under section 6(a), 29 USC 655(a), Congress granted OSHA two years in which to adopt existing federal and consensus standards as OSHA standards, without going through formal notice and comment rulemaking.
[15] *AFL-CIO v. OSHA,* 965 F.2d 962 (11th Cir. 1992).

no effort to update its PEL for CTC since the 11th Circuit's decision and, to our knowledge, it currently has no plans to do so.

The health standards OSHA has promulgated since it adopted its first standards under section 6(a) are comprehensive standards, which include not only a PEL, but prescribe other control and protective measures (which OSHA refers to as "ancillary provisions"). OSHA's PEL for CTC stands by itself; it is not part of a comprehensive standard. As such, it simply leaves employers to meet the PEL by implementing the hierarchy of controls.[16] Employers must also comply with OSHA's respirator standard, which imposes an implicit duty to monitor exposures to ensure compliance. But OSHA imposes no other requirements on employers to control CTC, such as the duty to demarcate regulated areas, to provide training beyond that required by the Hazard Communication standard, to provide housekeeping or hygiene facilities, or to maintain a medical surveillance program.

OSHA's CTC standard fails to protect workers from unreasonable risk in several ways. First, the standard is based on science from the 1960s or earlier. It is based on an industry consensus standard reached before 1970; there is no indication that this consensus standard was aimed at preventing liver toxicity or cancer—the health effects EPA has found pose unreasonable risk. While some employers may have reduced CTC exposures below 10 ppm in the more than 50 years since OSHA adopted the CTC PEL, employers are under no statutory duty to do so. OSHA imposes no specific duty to protect workers from CTC's dermal effects, beyond the general duty to provide personal protective equipment in 29 CFR 1910.132. This is especially important given that a construction union reports that, in the past, their members were

[16] 29 CFR 1910.134(a).

required to use squeeze bottles of CTC to clean metal, commonly accepting burning fingers as part of the job.

Nor does OSHA's Hazard Communication Standard impose a duty on owners/operators to reduce exposures to CTC below 10 ppm.[17] That standard requires chemical manufacturers to prepare safety data sheets (SDSs) advising of a chemical's hazards and recommended methods for hazard control. But OSHA has made clear that "*there is no requirement for employers to implement the [SDS's] recommended controls*."[18]

Likewise, the OSH Act's general duty clause is of little use in protecting workers from CTC exposures below 10 ppm.[19] EPA has correctly identified many of the obstacles OSHA would face if it tried to rely on the general duty clause.[20] Other obstacles exist as well. For example, OSHA regulations provide that where a specific standard already applies, the general duty clause does not.[21] OSHA has advised its inspectors that "section 5(a)(1) shall not normally be used to impose a stricter requirement" than required by an OSHA PEL.[22]

Moreover, an analysis of the few recent general duty clause citations OSHA has issued for chemical exposures reveals that none were issued to protect workers from overexposure to CTC or for exposures above an occupational exposure limit. Instead, they were issued only where certain chemical exposures led to clinical health effects, most with symptoms of acute onset within a brief period of time after exposure, and not chronic conditions.[23] So, in practice,

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[17] 29 C.F.R. §1910.1200.
[18] Hazard Communication, 77 Fed. Reg. 17,574, 17,693 (Mar. 26, 2012)(emphasis added).
[19] 29 U.S.C. § 654(a)(1).
[20] 88 Fed.Reg. at 49184.
[21] See 29 U.S.C § 654(a)(1); 29 C.F.R. § 1910.5(f). See also, *Chewy, Inc v. Dep't of Labor,* No. 19-0868 (11th Cir. 2023).
[22] OSHA Regulatory Directive, *Inspection Procedures for the Respiratory Protection Standard* at 5 (June 2014), https://www.osha.gov/OshDoc/Directive_pdf/CPL_02-00-158.pdf.
[23] AFL-CIO, *Death on the Job: The Toll of Neglect* at 141 (2023), available at https://aflcio.org/reports/death-job-toll-neglect-2023.

OSHA has not cited overexposure to chemicals using the general duty clause absent evidence of actual, and usually acute, harm, a practice that is not a preventative substitute for EPA risk management requirements.

These limitations on OSHA's standards and statutory authority mean that TSCA risk management rules are necessary to protect a population substantially larger than EPA has acknowledged. It is true, as EPA noted, that TSCA risk management rules are necessary to protect workers who are not covered by OSHA regulations, such as public sector workers in states without approved state OSHA programs, independent contractors, etc. But even where OSHA standards apply, TSCA rules are also necessary to protect workers whose exposures to CTC fall between 10 ppm—the lowest exposure level OSHA can currently enforce, yet set more than 50 years ago—and 0.03 ppm, the exposure level EPA has determined is necessary to protect workers from unreasonable risks.

II. Criteria EPA Should Rely Upon to Determine When to Prohibit a CTC Condition of Use

First, EPA must adopt a risk management rule that eliminates the unreasonable risk workers face from CTC. Where an existing chemical exposure limit, together with a short-term exposure limit (STEL) and action level, would do so, we believe EPA should adopt an ECEL that protects workers from the most sensitive health endpoint. TSCA requires nothing less. In this regard, we believe EPA has correctly selected liver toxicity and cancer as the reference points for setting an ECEL for CTC that will eliminate unreasonable risk to workers.

Second, EPA must also determine, for each identified CTC condition of use, whether employers can feasibly control exposures to the ECEL, through principal reliance on engineering and administrative practice controls, and without relying on respirators. In making that determination, EPA should adopt the definition of technological feasibility first articulated by the

D.C. Circuit for OSHA standards in *United Steelworkers v. Marshall,*[24] and adopted by every other circuit to consider the issue, in the CTC risk management rule. Under the prevailing legal standard, a rule is technologically feasible where the agency can show:

> a reasonable possibility that the typical firm will be able to develop and install engineering and work practice controls that can meet the PEL in most of its operations. [An agency] can do so by pointing to technology that is either already in use or has been conceived and is reasonably capable of experimental refinement and distribution within the standard's deadlines… Insufficient proof of technological feasibility for a few isolated operations within an industry, or even [the Agency's] concession that respirators will be necessary in a few such operations, will not undermine this general presumption in favor of feasibility. Rather, in such operations firms will remain responsible for installing engineering and work practice controls to the extent feasible, and for using them to reduce [chemical] exposure[s] as far as these controls can do so.[25]

By adopting this standard for determining whether CTC exposures can be controlled "by installing engineering and [administrative] controls to the extent feasible," *id.,* EPA can ensure that employers continually work to reduce exposures without regard to respirators to remain in compliance with the ECEL. Industrial hygiene policy and practice and OSHA regulatory requirements conclusively demonstrate that routine reliance on respirators is not an effective means of protecting workers from toxicants. EPA should clarify that this standard applies to its risk management rule for CTC.

Third, when EPA lacks evidence that engineering and administrative controls can reduce exposures to 0.03 ppm, it should ban continued use of CTC. Any course other than a ban on CTC use in such circumstances would fail to meet EPA's statutory duty to eliminate unreasonable risk. Of course, EPA must ensure that any substitutes for CTC are no more toxic and preferably substantially less toxic without posing other hazards than CTC. Once EPA has determined that it will prohibit a CTC use, it should mandate that the use be stopped as soon as feasible. Extended

[24] 647 F.2d 1189 (DC Cir. 1980).
[25] *Id.* at 1272.

deadlines to comply with a regulatory phase out of a CTC unnecessarily prolong exposure to unreasonable risks.

Finally, where EPA believes it is necessary to prohibit a CTC use, it should limit the critical use exemptions it authorizes under TSCA 6(g). Critical use exemptions should be narrow, and last only as long as necessary for safer substitute alternatives or processes to be developed or for the critical nature of the use to end. Further, when a 6(g) exemption is about to expire, the burden should be on owners/operators to demonstrate that the use of CTC remains critical and there remain no substitutes for CTC.

In exceptional circumstances, where EPA determines that a use should continue because it has benefits for the environment, as it has proposed for CTC, it must ensure that workers do not bear an increased and unreasonable risk or that they are relegated to wearing respirators and other PPE all the time, in service to these environmental benefits. In other words, the burden of EPA's argument for the environment should not fall on worker health. In such circumstances, EPA must not only ensure that all feasible engineering and administrative controls are implemented, but that owners/operators who need to use CTC in these limited circumstances also pursue technological advances to reduce reliance on PPE over time.

The framework we are proposing has a number of advantages. First, it satisfies TSCA's statutory command that EPA eliminate unreasonable risk by using the most effective tools—elimination or substitution where feasible, or engineering controls and administrative controls. It is also consistent with both OSHA and NIOSH's long-standing preference for controlling exposures through the hierarchy of controls. Second, even in those instances where EPA permits a continued condition of use, this approach will incentivize industry to substitute other, safer chemicals, the preferred method of controlling occupational exposures. Industrial hygiene policy

places elimination of, or substitution away from, toxic chemicals at the very top of the hierarchy of controls.[26] While OSHA's performance-oriented standards generally call on employers to control exposures through any combination of substitution, engineering and work practice or administrative controls, the cost of engineering and work practice controls often convinces employers to eliminate the use of a toxicant posing unreasonable risks. That is, engineering and work practice controls may involve capital investments. Any rational employer should prefer to substitute a safer chemical or process alternative if one is available.

Accordingly, where EPA determines owners/operators can feasibly control exposures to 0.03 ppm, such as when the chemical is used in closed systems, we support EPA's decision nonetheless to require them first to consider elimination or substitution of a safer chemical or process in developing their exposure control plan, but where those options are unavailable, then to implement and maintain engineering and administrative controls to reduce exposures to the lowest level feasible. In the end, we believe this approach will ultimately lead to the development of safer alternatives.

But EPA must additionally prohibit owners/operators from substituting equally or more toxic products that EPA has not yet regulated or chemicals that pose other hazards, such as more flammable chemicals. It must offer technical assistance to owners/operators on safe substitution, because many owners/operators, particularly small businesses, cannot reasonably be expected to weigh the relative toxicity of various chemicals that salespeople promote. Owners/operators, workers, and their representatives will need guidance to identify acceptable substitutes. We believe EPA should identify the substitutes it views as "safe" or the chemical properties it views as preferred (or discouraged). Substituting an unregulated chemical posing unreasonable risks for

[26] U.S. Centers for Disease Control and Prevention. National Institute for Occupational Safety and Health. https://www.cdc.gov/niosh/topics/hierarchy/default.html.

a regulated chemical posing unreasonable risks does not improve worker health and safety and should be forbidden.

III. Comments on Specific Provisions of the Proposal

Definitions and Scope:

Owner/Operator – We believe that the CTC risk management rule should broadly apply wherever CTC is found in a workplace. The OSH Act is an employment law, whose application is tied to the employer/employee relationship. The statute expressly imposes obligations on *employers,* to comply with OSHA's standards and generally provide a workplace free of recognized hazards,[27] and *employees,* to comply with agency standards and regulations applicable to their conduct.[28] In this context, OSHA itself has recognized that, to ensure a safe workplace, it is often necessary to hold one employer responsible when their actions pose hazards to another employer's employees.[29] While long true in the construction industry, where employees of different employers work side by side, it is increasingly the case across many industries.

TSCA is not an employment law, and in directing EPA to act to protect the public, *including workers*, from unreasonable risks, Congress painted with a far broader brush. Section 6(a) declares that when EPA finds a toxic substance poses an unreasonable risk of harm, the Administrator "shall by rule . . . apply one or more of the [enumerated] requirements to such substance or mixture to the extent necessary so that the chemical substance or mixture no longer presents such risk."[30] None of the enumerated requirements is tied to actions to be taken or

[27] 29 U.S.C. §654(a).
[28] *Id.* §654(b). Although imposing this duty on employees, the statute provides no means of enforcing it.
[29] *Multi-Employer Citation Policy,* OSHA Instruction CPL 2-0.124 (1999), *available at* https://www.osha.gov/enforcement/directives/cpl-02-00-124.
[30] 15 U.S.C. § 2605(a).

avoided by a particular entity. Instead, the statute leaves it completely within the Administrator's discretion to determine which entities are best positioned to mitigate the identified risk. When it comes to protecting working people from the hazards posed by the toxic substances they encounter in the workplace, it is the owners or operators—regardless of their status as "employer" —that can most effectively ensure implementation of the WCPP. We therefore agree with EPA that the CTC risk management rule should apply broadly to owners and/or operators.

Potentially exposed person – We agree that the CTC risk management rule must protect all potentially exposed people at the workplace. As mentioned above, TSCA is not an employment law and there is no basis for EPA to tie exposure protections to employment status. With businesses' increased reliance on contractors, gig workers, and independent contractors, EPA is correct that this rule must protect everyone who is occupationally exposed, regardless of their employment status.

Likewise, EPA is correct in eliminating the distinction it had previously articulated between directly exposed workers and occupational non-users (ONUs). This distinction—never before relied upon in assessing occupational risks—is flawed. Some ONUs, like service, cleaning and maintenance workers, may have very high exposures, while other ONUs' exposures may be very low. Grouping both together for purposes of risk evaluation masks important exposure differences. But for purposes of regulation, not risk evaluation, anyone who works in a facility and faces the unreasonable risk to CTC should have the same protections. We applaud EPA for recognizing this important point.

Prohibitions of Certain Conditions of Use

We have two concerns about EPA's proposed prohibitions on certain conditions of use. First, although the agency states it is banning uses that have already been phased out, the unions

are aware of two specific uses which are not encompassed in EPA's list. In the past, construction workers were required to use products containing CTC to clean metals, to prepare surfaces for metalworking. In addition, workers in a number of industries used CTC as a fire extinguishing agent. Although unions succeeded in getting the employers whose employees they represent to discontinue these extremely hazardous uses, we do not know whether the products are still being used in non-union facilities—despite having been banned for consumer use for over 50 years. We urge EPA to ensure that these uses are on its list of prohibited conditions of use.

Second, in its previous risk management proposals, EPA proposed to ban conditions of use where the agency lacks evidence that owners/operators can meet the ECEL through principal reliance on engineering controls.[31] Here, while EPA has stated that it "has confidence that requirements to meet an ECEL can be implemented in highly standardized and industrialized settings,"[32] EPA states that it otherwise "does not have reasonably available information on engineering controls and administrative controls that would mitigate unreasonable risk across a wide variety of workplaces for most conditions of use."[33] It has nonetheless proposed to permit continued use of CTC in all conditions of use in which it has not already been phased out. This approach may lead to reliance on respirators for compliance, even though elsewhere, EPA acknowledges the flaws of reliance on respirator use. We strongly object to any risk management rule that would permit routine reliance on respirator use for compliance. Such an approach would be inconsistent with established industrial hygiene practice, decades of OSHA regulation and its other risk management proposals. We therefore urge EPA to reconsider the approach it is proposing to take in determining the conditions it will permit CTC to continue to be used. EPA

[31] *See, e.g.,*88 Fed. Reg. 28284 and 88 Fed. Reg. 39652.
[32] 88 Fed. Reg. 49195.
[33] 88 Fed. Reg. 49205. See also, 88 Fed. Reg. 49206.

must clearly articulate the criteria it uses to determine which uses to prohibit and which to permit. Here, EPA has not clearly identified which conditions of use rely on closed systems or which involve potential exposures about which EPA lacks data on exposures or feasible controls. Absent such clarity, EPA cannot be sure it has met the statutory requirement to eliminate the unreasonable risk from CTC faced by workers and absent exceptional circumstances, should ban uses where there is no evidence that occupational CTC exposures can be adequately controlled to prevent unreasonable risk to workers.

Worker Chemical Protection Program Elements:

We agree with EPA that where CTC is not banned, a stringent worker protection program is necessary to protect those who are potentially exposed throughout their working lifetime. We generally support EPA's efforts to closely align its WCPP with OSHA's existing regulatory regime: Owners/operators are familiar with OSHA's approach to regulating health hazards, which is consistent with long-standing and widely accepted principles of industrial hygiene practice. We support EPA's decision to adopt an ECEL and an action level, and requirements for exposure monitoring, regulated areas, training, and recordkeeping (requirements that, as noted earlier, are missing from OSHA's outdated CTC standard). However, we also believe EPA should adopt a short-term exposure limit (STEL).

ECEL and STEL – We agree that EPA should adopt an ECEL that protects workers against the most sensitive health endpoint, even if they have exposure to the chemical for their working lifetime.[34] We also agree that EPA should establish an action level at a fraction of the ECEL, which triggers certain stratified compliance duties by imposing fewer requirements when exposures are known to be below an action level, requiring continued monitoring when

[34] *Id.* at 49192.

exposures are between the action level and the ECEL and, when exposures exceed the ECEL, requiring strict adherence to the hierarchy of controls, combined with other comprehensive control and protective (ancillary) requirements, such as regulated areas. This stratified approach to regulation will impose appropriate controls, based on the particulars of each workplace, yet should ultimately encourage owners/operators to shift away from using CTC and to substitute safer chemicals and processes.

We commend EPA for selecting the hepatic and cancer effects of CTC as the health endpoint of concern—because it is the most sensitive health end point for which EPA has data of harm—and seeking to protect workers from this unreasonable risk to their health. However, unlike its proposed risk management rule for methylene chloride, EPA has not proposed a short-term exposure limit for CTC but we believe a STEL is warranted. While the federal OSHA CTC STEL is 25ppm, California OSHA's CTC STEL is 10 ppm and its ceiling is 200 ppm. But even these are outdated, and we encourage EPA to set a stricter STEL. The STEL should be set below the highest level at which no acute neurotoxic effects (which appear to be the most sensitive endpoint[35]) in humans have been found, with a safety (uncertainty) factor.

Exposure Monitoring – We applaud EPA for proposing to mirror the monitoring paradigm OSHA relies upon in its health standards. Unfortunately, EPA's proposal omits two important elements of the OSHA monitoring program. First, OSHA requires exposure monitoring to be conducted without regard to respirator use.[36] EPA's proposal rule does not make clear that "personal breathing zone" air samples are to be taken without regard to respirator use. In light of the confusion over the role PPE use should play in EPA's decision about

[35] EPA Carbon tetrachloride: Section 3.2.5.1.1 Toxicity After Acute Inhalation Exposures in Humans.
[36] *See, e.g.,* 29 CFR 1910.1052(b) (OSHA's methylene chloride standard; definition of employee exposure).

chemical risks and their control, it is imperative that EPA explicitly state that exposure must be measured without taking respirators into account, for reasons already covered.

Second, OSHA health standards routinely require employers to provide employees or their designated representatives with the opportunity to observe the monitoring.[37] This is an important check to ensure that owners/operators are correctly monitoring employee exposure and that their monitoring is representative of employee exposures. EPA should add this requirement to the final CTC risk management rule.

While we agree with EPA that initial and periodic monitoring should be conducted regularly, we believe it should be completed at least once every one to two years. This ensures that monitoring results continue to be representative of actual exposures: Exposures may change over time and results taken in one year may not reflect exposures years later.

For this reason, EPA's proposal to allow five-year-old monitoring data to substitute for more recent measurements is too long. A more limited lookback for owners/operators that have representative monitoring data would better reflect actual exposures. In addition, EPA should ensure that owners/operators document what exposure measurements represent and how exposure monitoring was conducted.[38] Finally, area monitoring is not an appropriate substitute for representative personal breathing zone samples.

Methods of Compliance – We applaud EPA for adopting the hierarchy of controls as mandatory in its proposed CTC risk management rule framework. Insisting that owners/operators implement all engineering and work practice controls before resorting to respirator use is fully consistent with established industrial hygiene policy and OSHA's regulatory approach.

[37] *See, e.g., id.* 1910.1052(d)(6).
[38] *See, e.g., id.* 1910.1052(m)(2).

However, proposed section 751.707(d)(1)(b) states that a violation occurs only when an owner/operator fails to demonstrate that it has not supplemented feasible engineering and administrative controls with respiratory protection. This sentence must be modified. EPA must make clear that if an owner/operator fails to implement *all* feasible engineering and administrative controls, it violates section 751.707 even if respiratory protection is provided.

Exposure Control Plan – We agree with EPA that owner/operators must document the basis for their selection of controls, including their evaluation of whether substitutes for CTC are available or process changes can eliminate the use of CTC. Analyzing and documenting each step required in the exposure control plan is important to implementing the most effective CTC exposure controls.

We agree with EPA that, when possible, elimination or substitution of other chemicals for CTC is the preferred approach to exposure control. We also agree that employers must avoid substituting a chemical which is equally or more toxic than CTC or creates other hazards. However, the language of the WCPP is not strong enough to ensure that owners/operators substitute less hazardous chemicals for CTC, rather than just substituting less *regulated* chemicals. If EPA is to prefer substitution, it should ensure that it does not inadvertently encourage "regrettable substitution." One way to do so would be to prohibit owners/operators from substituting another chemical EPA has found to pose unreasonable risks, and to identify substitutes it views as safe, preferred or discouraged.

Regulated Areas – EPA should prohibit all nonwork related activities in a regulated area, not just those that increase CTC exposure. For example, no food and beverages should be permitted in a regulated area.

Key Omission from WCPP – EPA has failed to include a provision requiring owner/operators to include workers in developing the plan. Workers and their representatives are critically important participants in devising any control strategy. They work with the product and know the practicalities and vulnerabilities in any control strategy and, often, the most effective methods to remedy them. The participation of workers and their representatives in the development of the exposure control plan needs to be mandatory.

Direct Dermal Contact Control (DDCC) – We agree that limits on dermal exposure to CTC are necessary to protect workers from exposure through dermal contact with the chemical. We also agree that dermal protections should align with the hierarchy of controls; in other words, owners/operators must protect workers from dermal exposure primarily through reliance on engineering and administrative controls and may rely on personal protective equipment only to the extent those other controls do not fully protect workers. Even with fully implemented engineering and administrative controls, there may be circumstances in which workers will need to wear PPE in order to be protected from dermal exposures. For instance, an operator may still need PPE if the system is not completely enclosed, or some workers who do not need PPE during normal operations of a completely controlled system may still need PPE when troubleshooting, repairing and maintaining the system. Owners and operators must be required to ensure PPE is suitable for the purpose and task, be replaced frequently enough to maintain its effectiveness, and properly fit. Owners/operators must also be required to provide this protection at no cost to workers, pay workers during donning and doffing of PPE, provide areas to change into and out of protective gear, and launder contaminated clothing. Finally, owners/operators must be required to include documented procedures in their

exposure control plan for ensuring that potentially exposed persons do not take CTC contaminated clothing home with them.

Training – We applaud EPA for including specific requirements for training potentially exposed workers on the hazards posed by CTC, how to handle the chemical properly, and the regulatory requirements in place to protect them. Training is an essential component of any control strategy. Equally important is the requirement that training be provided in a form and language suitable for the affected workers and interactive, so workers can ask questions and receive clarification.

Recordkeeping:

Employee participation – Section 751.713 is under inclusive. It fails entirely to ensure that workers *and their designated representatives* have access to the exposure control plan, exposure monitoring records, and PPE program implementation and documentation." EPA must require owner/operators to provide all potentially exposed persons *and their designated representatives* with access to the information, consistent with OSHA's "Access to Employee Medical and Access Records."[39] EPA must require that owners/operators make the exposure control plan and other information available to potentially exposed persons and their designated representative promptly when requested; that relevant information in the plan is not redacted, and that a labor union or other representative of exposed employees have a right to access the information. Each of these significant failings should be corrected.

Under OSHA's Access Standard, "employees and their *designated representatives*" are entitled to specified information.[40] For purposes of access to exposure records or any analyses of exposure records, OSHA defines a "designated representative" as "a recognized or certified

[39] 29 CFR 1910.1020.
[40] *Id*. 1910.1020(a) (emphasis added).

collective bargaining agency" who "shall be treated automatically as a designated representative."[41] A recognized or certified collective bargaining representative is, under Federal labor law, the representative of workers and must be provided with access to information about exposure. Often, unions are the organizations with expertise to analyze exposure information, and they routinely bargain for improved working conditions. Moreover, MSHA defines a miner representative as "any person, group or organization designated by two or more miners to represent their interest during health and safety enforcement processes at their mine."[42] Note that MSHA allows any miner—even non-union—to designate a representative of their choosing, and OSHA, tracking MSHA's longstanding process, just issued a proposal that would clarify that any outside party could serve as any employee's representative during OSHA inspections, specifically.[43] EPA should ensure that owners/operators grant worker representatives—either unions or, for unrepresented workers, other designated representatives—access to the information that owners/operators must record under Section 751.713.

Record Retention – The proposed retention period is too brief. The retention period should continue for at least five years from the date the owner/operator ceases to use CTC. Records about the development of the exposure control plan and its implementation (such as monitoring results before and after) remain relevant while CTC continues to be used. They do not cease to be relevant after five years if CTC is still being used and workers continue to be exposed. Additionally, record retention should be much longer than the required frequency for exposure monitoring, so comparisons can be made over time. Because of the significant value of

[41] *Id.* 1910.1020(c)(3).
[42] U.S. Mine Safety and Health Administration. A Guide for Miners' Representatives. 2013. https://arlweb.msha.gov/MinersRepGuide/MinersRepGuide2013.pdf
[43] 20 CFR 1903. Docket No. Docket No. OSHA-2023-0008

these records in occupational epidemiological research, which EPA also relies on in its non-occupational risk assessments, EPA should strongly consider requiring record retention for a much longer period, such as 10-30 years.

IV. OTHER COMMENTS

Objective data – Rather than allowing owners/operators to rely on five-year-old monitoring data to determine their compliance obligations under the proposed CTC risk management rule, EPA should consider exempting owners/operators from monitoring if they provide adequate objective data that is representative of worker exposures, showing that exposures will not exceed the ECEL. This is an approach OSHA has permitted through some standards and enforcement letters of interpretation. For example, OSHA's 2016 silica standard permits employers to use objective data for their initial exposure assessment.[44] The standard defines objective data as:

> information, such as air monitoring data from industry-wide surveys or calculations based on the composition of a substance, demonstrating employee exposure to respirable crystalline silica associated with a particular product or material or a specific process, task, or activity. The data must reflect workplace conditions closely resembling or with a higher exposure potential than the processes, types of material, control methods, work practices, and environmental conditions in the employer's current operations."[45]

OSHA's hexavalent chromium standard exempts from its scope employers with objective data showing exposures lower than a certain threshold.[46] In a 2006 letter of interpretation on hexavalent chromium sampling, OSHA clearly outlined the permissible use of objective data:[47]

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[44] 29 CFR 1910.1053(d)(2)(ii).
[45] *Id.* 1910.1053(b).
[46] *Id.* 1910.1026(a)(4) (exempting from its scope workplaces "[w]here the employer has objective data demonstrating that a material containing chromium or a specific process, operation, or activity involving chromium cannot release dusts, fumes, or mists of chromium (VI) in concentrations at or above 0.5 µgm/m^3 as an 8-hour time-weighted average (TWA) under any expected conditions of use").
[47] https://www.osha.gov/laws-regs/standardinterpretations/2006-11-14-0.

- Where objective data are used to satisfy the exposure determination requirement, the employer must establish and maintain an accurate record of all the information it relied on. This record must include: the specific chromium-containing material in question; the source of the objective data; the testing protocol and results of testing or analysis of the material that releases chromium (VI); a description of the process, operation, or activity involved and how the data support the determination; and any other data relevant to the process, operation, activity, material, or employee exposures (71 *FR* 10370).
- Since objective data may be used to exempt the employer from provisions of the standard or provide a basis for selection of respirators, it is critical that this determination be carefully documented. Reliance on objective data is intended to provide the same degree of assurance that employee exposures have been correctly characterized as air monitoring would have. Records must demonstrate a reasonable basis for the underlying exposure determination (71 *FR* 10370).
- OSHA's term "closely resemble" that appears in this standard's definition for both "objective data" and "historical monitoring data" (note that historical data may be used as objective data) in the standard's paragraph (b) has been defined in other standards as circumstances where the major workplace conditions which have contributed to the levels of historic exposure are no more protective than in the current workplace. OSHA's intent is to allow data reflecting past exposures to be used to predict current exposures only when the conditions of the earlier job were not more protective… (reference 59 *FR* 40977, 29 CFR Parts 1910, et al., *Occupational Exposure to Asbestos; Final Rule*, August 10, 1994).

- The burden is ultimately on the employer to show that the objective data comply with the requirements of the standard. OSHA's intent is to allow employers the greatest possible flexibility in selecting methods used to determine employee exposures to chromium (VI), so long as the methods used are accurate in characterizing employee exposures (71 *FR* 10342).

EPA should consult with OSHA on appropriate scenarios where objective data has been permitted and could appropriately be used in managing CTC's risks, but not hiding them.

Alternative Regulatory Actions:

Section 9 – OSHA has no plans to regulate CTC. Its last effort to do so—more than 25 years ago—failed in the courts. GAO has found that OSHA standard setting takes, on average, more than seven years.[48] Referring regulation of CTC to OSHA at this point in time would be inconsistent with EPA's statutory duty to eliminate unreasonable risk to workers within the TSCA timeframes.

Definitions for Conditions of Use – EPA should make clear that any use of CTC that does not fall within the prohibition list in the rule must comply with the WCPP—that is, any new use or use EPA failed to evaluate or described improperly is not exempt from regulation.

Conclusion

We applaud EPA for proposing to adopt critically needed additional health protections for workers exposed to CTC. OSHA's PEL, adopted more than 50 years ago, leaves workers exposed to significant and unreasonable health risks. Since its adoption, too many workers have

[48] U.S. Government Accountability Office. Workplace Safety and Health: Multiple Challenges Lengthen OSHA's Standard Setting. April 2012. https://www.gao.gov/assets/gao-12-330.pdf

been made ill or died from overexposure to CTC. EPA should promptly adopt rules to prevent this continuing health threat.

We urge EPA to reconsider whether additional uses of CTC—where EPA has no reliable information that exposures can be kept below the ECEL through principal reliance on engineering and administrative controls—should be banned. We applaud EPA for proposing a risk management regime for those uses where CTC will continue to be used, which follows the approach OSHA has relied upon for decades when regulating the control of toxic exposures. This avoids imposing duplicate or conflicting requirements on owner/operators and workers, who are familiar with the OSHA regulatory approach. We believe that with the additions we have proposed, EPA's risk management rule will go a long way to eliminating the unreasonable risk exposure that CTC poses to workers.