

**BEFORE THE ADMINISTRATOR  
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

In the matter of: )  
)  
Modification to Operating Permit No. 96OPAD120 )  
)  
Issued to Suncor Energy (U.S.A.), Inc. – Commerce ) Permit No. 96OPAD120  
City Refinery, Plants 1 & 3 )  
)  
Issued by the Colorado Department of Public Health )  
and Environment )

**PETITION TO OBJECT TO MODIFICATION OF TITLE V OPERATING PERMIT  
FOR SUNCOR ENERGY’S COMMERCE CITY REFINERY PLANTS 1 & 3**

Pursuant to 42 U.S.C. § 7661d(b)(2) and 40 C.F.R. § 70.8(d), Colorado Latino Forum, Colorado People’s Alliance, Cross Community Coalition, Elyria and Swansea Neighborhood Association, the Sierra Club and its Colorado Chapter, and Western Resource Advocates (collectively, “Petitioners”) hereby respectfully petition the Administrator of the U.S. Environmental Protection Agency (“EPA”) to object to the modification to the Title V Operating Permit, No. 96OPAD120, issued on January 2, 2018 by the Colorado Air Pollution Control Division (“APCD” or “the Division”) to Suncor Energy (U.S.A.), Inc. (“Suncor”) for the Commerce City Refinery, Plants 1 & 3 (the “Refinery” or “Facility”), located at 5801 Brighton Blvd., Commerce City, CO 80022-3696.

Specifically, Petitioners ask the Administrator to object to the Suncor permit modification on the basis that it unlawfully thwarts the Emergency Planning and Community Right-to-Know Act (“EPCRA”), the Comprehensive Environmental Response, Compensation and Liability Act (“CERCLA”), and Clean Air Act (“CAA” or the “Act”) by establishing a permit limit for hydrogen cyanide (“HCN”) emissions that is not based on any applicable CAA requirement and is not set at a level determined to protect public health, but is instead included in the permit for the sole purpose of exempting Suncor from emergency release reporting otherwise required under EPCRA and CERCLA.

**BACKGROUND**

**I. Petitioners**

Petitioners all have an interest in the modification at issue because their members live, work, and recreate near Suncor, and are affected by its pollution. Petitioners also have organizational interests in protecting public health and improving air quality in the Denver-metro region.

Colorado Latino Forum (“CLF”) is dedicated to increasing the political, social, educational, and economic strength of Latinas and Latinos.

Colorado People's Alliance ("COPA") is a racial justice, member-driven organization dedicated to advancing and winning progressive social change locally, statewide and nationally. COPA builds power to improve the lives of all Coloradans through leadership development, organizing and alliance building.

Cross Community Coalition ("CCC") is a registered neighborhood organization ("RNO") with the City of Denver that was recognized by the City in 2015. It represents the entire community just south of Suncor, in the area bordered by Colorado Boulevard to the east, the Denver/Adams County line to the north, the South Platte River to the west, and 38th Street and 40th Avenue to the south. CCC is a grassroots organization that seeks to assist, serve, and represent the neighbors in this community. CCC is honored to take up the mantle of a previous iteration of CCC, which was a neighborhood services organization that advocated for and served north Denver residents for decades. CCC devotes much of its advocacy to improving air quality in north Denver.

The Elyria and Swansea Neighborhood Association ("ESNA") is an RNO with the City of Denver. We represent residents and small business owners within the geographical neighborhoods of Elyria and Swansea in north Denver, located immediately south of Suncor. ESNA's mission is to educate and inform the community and facilitate informed discussion of the many, unique issues and challenges facing our neighborhoods. We provide grass-roots access for residents and property owners to the dialogue formulating and implementing the common future we all share. That mission includes public meetings and outreach, advocacy of our common interests and goals to our civic leaders, as well as specific projects that provide tangible benefit for the community. Our future in Elyria and Swansea is threatened at all levels: many large, outside forces are acting on these neighborhoods, and ESNA is an advocate for the interests of its residents, and a bulwark against outside interests interfering with the cohesion of these affected communities.

Sierra Club's mission is to explore, enjoy, and protect the wild places of the earth; to practice and promote the responsible use of the earth's ecosystems and resources; to educate and enlist humanity to protect and restore the quality of the natural and human environment; and to use all lawful means to carry out these objectives. In addition to helping people from all backgrounds explore nature and our outdoor heritage, Sierra Club works to promote clean energy, safeguard the health of our communities, protect wildlife, and preserve our remaining wild places through grassroots activism, public education, lobbying, and legal action. Sierra Club currently has more than 777,000 members nationwide. The Sierra Club's Colorado Chapter has more than 73,000 members and supporters.

Western Resource Advocates ("WRA"), which has its main office in Boulder Colorado and staff and members who live and work near the Suncor Refinery, is dedicated to protecting the West's land, air, and water to ensure that vibrant communities exist in balance with nature. WRA uses law, science, and economics to craft innovative solutions to the most pressing conservation issues in the region. WRA works to guarantee that the West will have clean air and clean water to support healthy communities and vital habitat.

## II. Factual and Procedural Background

### A. The Suncor Facility

Suncor is a massive refinery located in Commerce City, Colorado. APCD, *Operating Permit: Suncor Energy (U.S.A.) Inc. – Commerce City Refinery, Plant 1 (West Plant) and Plant 3 (Asphalt Unit) Draft Operating Permit* at 1 (Feb. 22, 2018) (“Final Modified Permit”) (Exhibit 1). The Division classifies the refinery as consisting of three facilities: Plants 1, 2, and 3. *Id.* Suncor acquired Plants 1 and 3 from ConocoPhillips in 2003. *ConocoPhillips refinery sold for \$150M*, Denver Business Journal (Apr. 15, 2003), <https://www.bizjournals.com/denver/stories/2003/04/14/daily13.html>. It acquired Plant 2 from Valero in 2005. Steve Raabe, *Suncor purchases Valero oil refinery*, Denver Post (June 1, 2005), <http://www.denverpost.com/2005/06/01/suncor-purchases-valero-oil-refinery/>.

### B. This Permit Proceeding

The Division has issued one Title V permit for Plant 2 and another permit for Plants 1 and 3. Final Modified Permit at 1. At issue in this Petition is the Title V permit for Plants 1 and 3. The Plant 1 & 3 permit was first issued in 2004, and last renewed in 2012. *See generally id.*<sup>1</sup> However, since that time, Suncor has requested, and the Division has approved, dozens of modifications to the permit. *See id.* at App’x F pp. 1–13.

Suncor requested approval for its latest set of 12 modifications between November 2, 2015, and February 7, 2017. Jacqueline Joyce, APCD, *Technical Review Document for Modification to Operating Permit 96OPAD120* at 1 (Jan. 2018) (“Final TRD”) (Exhibit 2). Petitioners request that EPA object to one of these modifications—Suncor’s proposal to create a permit limit for HCN—that Suncor requested on November 8, 2016. *See infra* pp. 9–26. The Division released the draft permit modifications for public comment on May 11, 2017. Earthjustice, *Request for Public Comment Hearing on Suncor Energy (U.S.A.), Inc. Commerce City Refinery—Plants 1 and 3—Adams County, Title V Operating Permit Modification (96OPAD120)* at 4–5 & n.35 (June 9, 2017) (Exhibit 3). Pursuant to Colo. Rev. Stat. § 25-7-114.5(6)(b), CCC timely submitted a request for public hearing on the draft permit modifications on June 9, 2017. *Id.* at 1. The Colorado Air Quality Control Commission (“AQCC” or “the Commission”)<sup>2</sup> granted the request for a public hearing on June 12, 2017. Email from Theresa Martin, AQCC, to Joel Minor, Earthjustice (June 12, 2017) (Exhibit 4).

The hearing was held on August 2, 2017. Final TRD at 49. Over 100 people attended the hearing, and the vast majority did not support the proposed permit modifications. Petitioners

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<sup>1</sup> The five-year term for the Plants 1 & 3 permit expired in October 2017. Petitioners understand that Suncor submitted a renewal application that is awaiting Division action.

<sup>2</sup> The Commission is an independent rulemaking body that adopts and revises air quality regulations, and also presides over Title V permit hearings. The Division is a regulatory agency within the Colorado Department of Public Health and Environment (“CDPHE”) that implements and enforces regulations adopted by the Commission. The Commission and Division are referenced separately throughout this Petition, except when collectively referenced as CDPHE.

timely submitted written comments the previous day, on August 1, 2017. Comments of Colorado Latino Forum, et al. (Aug. 1, 2017) (“Comments”) (Exhibit 5). In total, CDPHE received over 1500 written public comments. *See generally* APCD, *Response to General Citizen Comments re Suncor Plants 1 & 3 Draft Title V Permit Modification* (Jan. 2, 2018) (Exhibit 6).

Due to the high level of public interest, the Commission chose to extend the time period to submit written comments. Final TRD at 49. Petitioners timely submitted supplemental comments on August 9, 2017. Supplemental Comments of Colorado Latino Forum, et al. (Aug. 9, 2017) (“Supplemental Comments”) (Exhibit 7).

On January 2, 2018, the Division responded to the public comments and transmitted the proposed permit modifications to EPA for review. Email from Jackie Joyce, APCD, to Joel Minor, Earthjustice (Jan. 2, 2018) (Exhibit 8). In responding to Petitioners’ comments, the Division added a new rationale for the HCN limit. Letter from Jackie Joyce, APCD, to Joel Minor, Earthjustice, re: Response to Comments on Draft Revised Operating Permit 29–31 (Jan. 2, 2018) (“RTC”) (Exhibit 16). The Division changed the permit based on that new citation of the different authority on which it now attempts to rely. *Id.* (explaining that the Division revised the permit to “update the citation to include” 5 Colo. Code Regs. §§1001-5:3B.II.A.4, 1001-5:3B.II.A.7, & 1001-10:E.IV.A.2).

EPA did not object to the permit modifications within the 45-day objection period, which ended on February 16, 2018. The Division formally revised and issued the final, modified permit several days later, on February 22, 2018. *See generally* Final Modified Permit. This Petition is therefore timely because it was filed on April 17, 2018, within 60 days of February 16, 2018. *See* 42 U.S.C. § 7661d(b)(2). This petition includes both objections that were raised in Petitioners’ comments, and some argument and objections that it was “impracticable” to raise and that arose after such period, due to the fact that the Division changed its cited rationale, alleged authority, and permit after the comment period closed. *See* 42 U.S.C. § 7661d(b)(2) (allowing objections raised during the comment period and those “that it was impracticable to raise . . . within such period or . . . arose after such period”).

### **C. Background on Suncor’s Hydrogen Cyanide Releases**

HCN is a dangerous agent of chemical warfare with both acute and long-term health effects. HCN is not regulated directly under federal or Colorado law. Prior to this permit modification, Suncor’s Title V permit did not include an HCN limit. Nor is there any applicable requirement under the CAA that requires an HCN limit. Nonetheless, Suncor voluntarily requested that the Division add an HCN emissions limit to its permit so that its HCN releases qualify as “federally permitted,” thereby exempting them from emergency release reporting under EPCRA and CERCLA. *See* Correspondence File at 1–2.<sup>3</sup> The Division agreed to do so

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<sup>3</sup> The full file of correspondence between Suncor and Division regarding the permit modifications at issue was sent by Margaret Knox-Kruschke, APCD, to Joel Minor, Earthjustice, on May 30, 2017. Correspondence File documents that are relevant to the HCN emissions limit are attached to this Petition (Exhibit 9). Although the Division provided the file as an unnumbered PDF, Petitioners have Bates Stamped the document to facilitate easier citation.

and proceeded to set the HCN limit at a level that is 1.5 times Suncor's actual HCN emissions, without any effort to set a standard that is protective of public health. See Final TRD at 18–20. Given the multitude of acute and chronic adverse health effects that result from even low level exposure to hydrogen cyanide, it is crucial for both EPA and the Division to protect Suncor's employees and the fence-line communities closest to Suncor from continuous or even sporadic HCN emissions.

### 1. Hydrogen Cyanide Has Severe Health Impacts.

Hydrogen Cyanide is a colorless gas with a faint, bitter, almond-like odor. Agency for Toxic Substances & Disease Registry ("ATSDR"), *ToxFaqs for Cyanide* (last updated Oct. 24, 2011), <http://www.atsdr.cdc.gov/toxfaqs/tf.asp?id=71&tid=19>. It is the main form of airborne cyanide. *Id.* Exposure at high levels swiftly harms the brain and heart, by first causing rapid breathing, followed by convulsions, loss of consciousness, and even coma and death. *Id.* More commonly, even low level exposure to HCN is associated with breathing difficulties, chest pain, vomiting, headaches, and enlargement of the thyroid gland. *Id.* Because of the immediate and significant harm it causes to exposed individuals, it has been used as a chemical warfare agent. Cal. EPA Office of Env'tl. Health Hazard Assessment ("OEHHA"), *Hydrogen Cyanide* (last visited Apr. 17, 2018), <https://oehha.ca.gov/chemicals/hydrogen-cyanide>.

HCN causes both acute, short-term harms, and long-term, chronic harm to human health. Exposure to HCN can harm the nervous and cardiovascular systems, and may particularly harm a developing fetus. EPA Integrated Risk Information System ("IRIS"), *Toxicological Review of Hydrogen Cyanide and Cyanide Salts* 19, 44, 49–50, 62–63 (2010), [https://cfpub.epa.gov/ncea/iris/iris\\_documents/documents/toxreviews/0060tr.pdf](https://cfpub.epa.gov/ncea/iris/iris_documents/documents/toxreviews/0060tr.pdf) (Exhibit 10) ("IRIS Toxicological Review"). Available reference exposure ("RfC") levels show ambient exposure that should be avoided to prevent chronic and acute health threats from inhalation. EPA's IRIS program has set a reference concentration of 0.0008 mg/m<sup>3</sup> for inhalation exposure. EPA IRIS, *Hydrogen Cyanide and Cyanide Salts* (updated July 28, 2017), [https://cfpub.epa.gov/ncea/iris2/chemicalLanding.cfm?substance\\_nمبر=60](https://cfpub.epa.gov/ncea/iris2/chemicalLanding.cfm?substance_nمبر=60) (The EPA IRIS inhalation value is based on EPA's own finding that the critical chronic noncancer effects act upon the endocrine system). Some states have also adopted their own metrics of HCN levels that are safe for short-term or acute exposure. See OEHHA, *Hydrogen Cyanide* (acute reference exposure level of 340 µg/m<sup>3</sup>, which is 0.31 parts per million ("ppm") at standard temperature and pressure); Tex. Comm'n on Env'tl. Qual., *Download Effects Screening Levels (ESLs) Used in the Review of Air Permitting Data* (last visited Apr. 17, 2018), [https://www.tceq.texas.gov/toxicology/esl/list\\_main.html](https://www.tceq.texas.gov/toxicology/esl/list_main.html) (download latest dataset and search for "hydrogen cyanide") (short-term, health based ESL of 20 µg/m<sup>3</sup>, which is 0.018 ppm at standard temperature and pressure).

Information that EPA collected to support a recent rulemaking on HCN emissions from refineries led the agency to conclude that chronic non-cancer risk from refineries is "driven by emissions of hydrogen cyanide from catalytic cracking unit vents." EPA, *Final Residual Risk Assessment for the Petroleum Refining Source Sector* 41, 44 (Sept. 2015), <https://www.regulations.gov/document?D=EPA-HQ-OAR-2010-0682-0800> (Exhibit 11) (listing hydrogen cyanide as "HAP 'driver[]'" for neurological hazards). EPA noted that this is an underestimate because the maximum individual risk number provided "does not reflect updated emissions during the rulemaking process or the risks associated with upsets and malfunctions."

*Id.* at 45. Moreover, the amount of risk based on “allowable” emissions was recognized to be at least at the threshold of chronic harm. *Id.* at 41–42 (noting that “[t]he maximum chronic noncancer TOSHI value for the source category could be up to 0.9 driven by emissions of hydrogen cyanide from catalytic cracking unit vents” and that “[r]isk results from the inhalation risk assessment using the MACT-allowable emissions indicate . . . that the maximum chronic noncancer Hazard Index value is about 1”).

Epidemiological studies involving workers have shown the adverse impacts of HCN causing neurological, respiratory, cardiovascular and thyroid effects. One study notes:

Workers exposed to HCN for more than 5 years showed an increase in symptoms such as head ache, weakness, changes in taste and smell, irritation of throat, vomiting, lacrimation, abdominal colic, pericardial pain and nervous instability. A retrospective study made in United States among silver reclaiming workers reported that about 65% of the workers reported symptoms including eye irritation, loss of appetite, weight loss, nose block, fatigue, skin rashes, and shortness of breath, cough, sore throat, chest pain, heart palpitation and fainting. There was a significant positive trend between exposure levels of subjects and assessment of severity of poisoning.

Priya Kali Dhas, et al., *Study of the Effects of Hydrogen Cyanide Exposure in Cassava Workers*, 15 Indian J. Occupational Env'tl. Med. 133 (2011), [www.ncbi.nlm.nih.gov/pmc/articles/PMC3299098/](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3299098/).

The World Health Organization has acknowledged that while the majority of the general population is exposed to very low levels of HCN, there are subgroups of the population that have the greatest potential for much higher exposure, including “those in the vicinity of accidental or intended releases from point sources.” World Health Org., *Hydrogen Cyanide and Cyanides: Human Health Aspects* 5 (2004), <http://www.who.int/ipcs/publications/cicad/en/cicad61.pdf>.

Suncor’s newly-permitted emission rate of 12.8 tons per year (“tpy”) would result in 71 pounds of HCN emitted every single day of the year. *See* Final Modified Permit at 78. To put that in perspective, the 2014 National Emissions Inventory (“NEI”) database shows that reported HCN emissions from all of Colorado totaled just 0.47 tpy. EPA, *2014 National Emissions Inventory (NEI) Data* (last updated Mar. 2, 2018), <https://www.epa.gov/air-emissions-inventories/2014-national-emissions-inventory-nei-data> (download data for Colorado and hydrogen cyanide) (Exhibit 12). Accounting for the fact that Suncor previously had zero allowable emissions for HCN, the Division permitting Suncor to emit 12.8 tpy will account for about a 2700% increase in allowable HCN emissions, statewide. From another perspective, CDPHE attempted to model Suncor’s fence-line ambient air concentration, and concluded it would be 0.005 ppm. Final TRD at 19, 55. Based on the metrics discussed above, and as discussed below, *see infra* pp. 22–25, this level is too high to protect human health.

## 2. EPA Regulates HCN Using Carbon Monoxide as a Surrogate.

EPA has not set a limit that directly regulates HCN emissions. Congress listed cyanide compounds, which may include HCN, as a hazardous air pollutant (“HAP”) under § 112 of the CAA. 42 U.S.C. § 7412(b)(1). But EPA has never developed a National Emissions Standard for Hazardous Air Pollutants (“NESHAP”) for HCN. *See* 42 U.S.C. § 7412(d)(1); 40 C.F.R. §§ 63.1560, 63.1561. If EPA were to set an HCN NESHAP, the agency would be required to meet strict requirements for ensuring that the limit was adequately protective of public health. *See* 42 U.S.C. § 7412(d)(2)–(3), (f)(2). Nor does Colorado regulate HCN as a HAP. Final TRD at 18 (“There are no federal or Colorado ambient air quality standards for HCN, therefore, modeling is not required.”); *see also* 5 Colo. Code Regs. §§ 1001-10:A-I (listing federal NESHAPs adopted under state law), 1001-10:C-I (reserved section for state-only NESHAPs), 1001-10:C-II (Statement of Basis and Purpose describing state-only NESHAPs).

Instead of regulating HCN by establishing a NESHAP, EPA has chosen to regulate HCN emissions from refinery FCCUs using carbon monoxide as a surrogate. *See* 40 C.F.R. pt. 63, Subpt. UUU, Tbl. 8. In 2015, EPA updated its refinery regulations, and decided that a 500 ppm limit for fuel catalytic cracking unit (“FCCU”) one-hour carbon monoxide emissions provided an adequate surrogate for limiting HCN emissions from the same equipment. 80 Fed. Reg. 75,178, 75,203–04 (Dec. 1, 2015) (“Refinery Rule”). EPA chose to do so despite comments and detailed technical analysis submitted by several organizations, including Petitioner Sierra Club, demonstrating that limiting carbon monoxide emissions was not an adequate surrogate for limiting HCN emissions. *See id.*; *see also* Comments of Environmental & Community Groups 53, 128–30 (Oct. 28, 2014) (Exhibit 13); Phyllis Fox, *Report on Hydrogen Cyanide Emissions from Fluid Catalytic Cracking Units* 6–13 (Oct. 28, 2014) (“Fox Report”) (Exhibit 14).<sup>4</sup>

However, acknowledging concerns that reported HCN emissions were higher than anticipated and due to its finding that HCN was the pollutant that was driving the highest level of neurological risk to the most-exposed community members, EPA chose to require FCCU owners and operators to conduct one-time HCN stack tests prior to August 1, 2017. 80 Fed. Reg. at 75,178, 75,183, 75,204 (“We understand concerns about the reported HCN emissions being higher than anticipated and the need for more data to better determine HCN emissions levels.”); *see also* 40 C.F.R. § 63.1571(a)(6).<sup>5</sup>

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<sup>4</sup> Petitioners maintain their position that EPA’s decision to regulate HCN using carbon monoxide as a surrogate was incorrect, unlawful, and arbitrary and capricious.

<sup>5</sup> *See also* 80 Fed. Reg. at 75,206 (“However, we understand that there are uncertainties and high variability in HCN emissions measured from FCCU. In order to address the need for more data to better characterize HCN emissions levels, we are finalizing a requirement for refinery owners or operators to conduct a performance test for HCN from all FCCU (except those units that were tested previously using acceptable methods as outlined in the 2011 Refinery ICR) during the first PM test required as part of the on-going compliance requirements for FCCU metal HAP emissions. These data will be useful to the EPA in understanding HCN emissions from FCU and may help to inform future regulatory reviews for this source category.”).

### III. Legal Framework

Congress enacted the CAA in response to the “mounting dangers to the public health and welfare” caused by air pollution. 42 U.S.C. § 7401(a)(2). The Act is designed “to protect and enhance the quality of the Nation’s air resources so as to promote the public health and welfare and the productive capacity of its population,” including through “pollution prevention.” *Id.* § 7401(b)(1), (c). In 1990, Congress strengthened the Act’s control requirements to ensure achievement of the statute’s public health goals, including by adding Title V of the Act. S. Rep. 101-228, at 11 (1989), *reprinted in* 1990 U.S.C.C.A.N. 3385, 3391–99 (highlighting evidence that millions of people were still exposed to high levels of harmful air pollution).

“Title V of the Clean Air Act requires certain industrial sources to obtain and operate in compliance with an operating permit.” *WildEarth Guardians v. Colo. Springs Util. Bd.*, No. 17-CV-00357-CMA-MLC, 2018 WL 317469, at \*2 (D. Colo. Jan. 8, 2018) (citing 42 U.S.C. § 7661b(a)). “The permit is crucial to implementation of the Act: it contains, in a single, comprehensive set of documents, all CAA requirements relevant to the particular polluting source.” *Virginia v. Browner*, 80 F.3d 869, 873 (4th Cir. 1996) (purpose of Title V permit is to provide “a source-specific bible for Clean Air Act compliance”); *see also Sierra Club v. EPA*, 536 F.3d 673, 674-75 (D.C. Cir. 2008) (“Title V did more than require the compilation in a single document of existing applicable emission limits. . . . It also mandated that each permit . . . shall set forth monitoring requirements to assure compliance with the permit terms and conditions.”).

“Title V permits do not generally impose any new emission limits, but are intended to incorporate into a single document all of the Clean Air Act requirements applicable to a particular facility and to provide for monitoring and other compliance measures.” *United States v. Cemex, Inc.*, 864 F. Supp. 2d 1040, 1045 (D. Colo. 2012) (quotation omitted). Thus, Title V requirements aim to “enable the source, States, EPA, and the public to understand better the requirements to which the source is subject, and whether the source is meeting those requirements.” 57 Fed. Reg. 32,250, 32,251 (July 21, 1992); *see also* 42 U.S.C. §§ 7661a(b)(5)(A), (C), 7661c(a); 40 C.F.R. § 70.7(a)(1)(iv); 5 Colo. Code Regs. § 1001-5:3C.V.C.1. Although Title V permits provide a list of applicable pollution control standards, “an operating permit does not relieve a source of responsibility to comply with other programs” under the CAA. *Cemex*, 864 F. Supp. 2d at 1049.

Specifically, Title V permits must include such conditions as “necessary to assure compliance with [all] applicable requirements.” 42 U.S.C. § 7661c(a), (c); *see also* 40 C.F.R. § 70.6(a)(1) (permits shall include emissions limitations and standards). “Applicable requirement[.]” is defined to include all standards, emissions limits, and requirements of the CAA. 40 C.F.R. § 70.2. Title V permits must include “compliance certification, testing, monitoring, reporting, and recordkeeping requirements” that sufficiently assure compliance with the terms and conditions of the permit. 40 C.F.R. § 70.6(c)(1); *see also* 42 U.S.C. § 7661c(c) (similar); *WildEarth Guardians*, 2018 WL 317469, at \*5 (explaining that the CAA “authorizes the EPA to require certain industrial sources to monitor, record, and report emissions and other data points”) (citing 42 U.S.C. § 7414(a)(1)).



“The CAA uses a cooperative-federalism approach to regulate air quality.” *U.S. Magnesium, LLC v. EPA*, 690 F.3d 1157, 1159 (10th Cir. 2012). Within this cooperative federalist framework, “[e]very state is charged with administering its own Title V operating permit program, subject to the requirements of Title V and to the approval of the EPA.” *WildEarth Guardians*, 2018 WL 317469, at \*2 (citing 40 C.F.R. § 70.1(a)). In Colorado, CDPHE is the agency charged with administering the state’s Title V operating permit program. *Id.* (citing 40 C.F.R. § 70, App’x A; Colo. Rev. Stat. § 25-7-114.3). When CDPHE approves a permit, it must “provide a statement that sets forth the legal and factual basis for the draft permit conditions.” 40 C.F.R. § 70.7(a)(5). This “statement of basis” must include, among other things, a reasoned explanation for why the selected monitoring, recordkeeping, and reporting requirements are sufficient to assure the facility’s compliance with each applicable requirement. *See, e.g., In re Los Medanos Energy Center*, EPA Order in Response to Petition (May 24, 2004), at 9–13, [https://www.epa.gov/sites/production/files/2015-08/documents/los\\_medanos\\_decision2001.pdf](https://www.epa.gov/sites/production/files/2015-08/documents/los_medanos_decision2001.pdf).

If Colorado submits a Title V permit that fails to include and assure compliance with all applicable CAA requirements, EPA must object to the issuance of the permit before the end of a 45-day review deadline. 42 U.S.C. § 7661d(b)(1); 40 C.F.R. § 70.8(c). If EPA does not object to a Title V permit, “any person may petition the Administrator within 60 days after the expiration of the Administrator’s 45-day review period . . . to take such action.” 42 U.S.C. § 7661d(b)(2); 40 C.F.R. § 70.8(d). The CAA provides that EPA “shall issue an objection . . . if the petitioner demonstrates to the Administrator that the permit is not in compliance with the requirements of the” Act. 42 U.S.C. § 7661d(b)(2); 40 C.F.R. § 70.8(c)(1); *see also N.Y. Pub. Interest Group v. Whitman*, 321 F.3d 316, 333 n.12 (2d Cir. 2003) (explaining that under Title V, “EPA’s duty to object to non-compliant permits is nondiscretionary”). Although petitioners bear the burden of demonstrating that a Title V Permit is deficient, once that showing has been made, “EPA has no leeway to withhold an objection.” *Sierra Club v. EPA*, 557 F.3d 401, 405 (6th Cir. 2009). EPA must grant or deny a petition to object within 60 days of its filing. 42 U.S.C. § 7661d(b)(2).<sup>6</sup>

#### **IV. Grounds for Objection**

EPA must object to the November 8, 2016 modification adding an HCN permit limit for Suncor’s FCCU (Permit Conditions No. 22.14), Final TRD at 18–20; Final Modified Permit 78, 87, because the limit is not based on any applicable CAA requirement, is not set at a level that is protective of public health, and in fact, is set far higher than Suncor’s actual emissions. Rather than serving to restrict Suncor’s HCN emissions to safe levels, the permit limit serves the sole and unlawful purpose of exempting Suncor’s HCN releases from EPCRA and CERCLA emergency release reporting by making such releases “federally permitted.” Thus, the HCN limit in Suncor’s permit is worse than not having any limit at all. A Title V permit is meant to assure compliance with “applicable requirements” under the CAA, not to serve as a vehicle for establishing sham emission limits meant to exclude a facility from protections under other environmental statutes.

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<sup>6</sup> Should EPA fail to meet this deadline, Petitioners reserve the right to seek redress under the CAA’s citizen suit provision. *See* 42 U.S.C. § 7604.

**A. The Division Cannot Lawfully Establish a Federally Enforceable HCN Emissions Limit Solely to Abet Suncor in Avoiding its EPCRA and CERCLA Obligations.**

EPA must object to the HCN emissions limit modification because it is premised not on implementing a CAA requirement, but rather on allowing Suncor to evade its obligations under other EPA-administered environmental laws. The HCN limit modification is thus not “in compliance with applicable requirements” of the CAA. 40 C.F.R. § 70.8(c)(1). Demonstrating just how unlawful its position is, while the Division asserts broad authority to include in the permit any HAP limit that *the source requests*, even if they have nothing to do with implementing the CAA, RTC at 30–32, the Division declares that it lacks authority to include HAP limits requested by the public that would serve to protect public health, *see id.* at 32–34.<sup>7</sup>

Ordinarily, HCN emissions must be reported pursuant to EPCRA, 42 U.S.C. § 11004(a)(1), and CERCLA, 42 U.S.C. § 9603(a). The purpose of EPCRA’s and CERCLA’s reporting requirements is to “provid[e] a mechanism whereby the public authorities are notified of every potentially hazardous release as soon as possible.” EPA, *Enforcement Response Policy for Sections 304, 311 and 312 of the Emergency Planning and Community Right-to-Know Act and Section 103 of the Comprehensive Environmental Response, Compensation and Liability Act* at 11 (1999), [www.epa.gov/sites/production/files/documents/epcra304.pdf](http://www.epa.gov/sites/production/files/documents/epcra304.pdf) (“EPA EPCRA/CERCLA Guidelines”) (Exhibit 15). EPCRA is specifically intended to “provide the public with important information on the hazardous chemicals in their communities, and to establish emergency planning and notification requirements which would protect the public in the event of a release of hazardous chemicals.” H.R. Conf. Rep. No. 99-962, at 281 (1986), 1986 U.S.C.C.A.N. 3276, 3374. Emergency release reporting under EPCRA section 304 “effectuate[s] a statutory purpose of informing communities and the public generally about releases from nearby facilities.” 71 Fed. Reg. 58,525, 58,526 (Oct. 4, 2006).

EPCRA provides that “[i]f a release of an extremely hazardous substance referred to in section 11002(a) of this title occurs from a facility at which a hazardous chemical is produced, used, or stored, and such release requires a notification under [CERCLA], the owner or operator of the facility shall immediately provide notice.” 42 U.S.C. § 11004(a)(1). EPCRA regulations define hydrogen cyanide as a hazardous substance and require reporting for releases of more than 10 pounds. 40 C.F.R. §§ 302.3, 302.4(b). Suncor routinely releases more than 10 pounds of HCN. *See* Correspondence File at 11 (performance test results).

In turn, CERCLA provides that “[a]ny person in charge of . . . an onshore facility shall, as soon as he has knowledge of any release (other than a federally permitted release) of a hazardous

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<sup>7</sup> As an initial matter, in the draft permit, the Division relied on two state regulations for its authority to set an HCN emissions limit. *See* RTC at 29. Petitioners identified legal flaws in the Division’s reasoning. Comments at 48. In response, the Division admitted that the “citation is incomplete and should have included” several other regulations. RTC at 30. Petitioners thus did not have the opportunity to comment on these rationales, but address them in this Petition because it was “impracticable to raise” the objections during the comment period. *See* 42 U.S.C. § 7661d(b)(2).

substance from such . . . facility in quantities equal to or greater than those determined pursuant to section 9602 of this title, immediately notify the National Response Center . . . of such release.” 42 U.S.C. § 9603(a). CERCLA defines “‘federally permitted release’ in an extraordinarily detailed manner,” *Reading Co. v. City of Phila.*, 823 F. Supp. 1218, 1231 (E.D. Pa. 1993), as:

emission into the air subject to a permit or control regulation under section 111, section 112, title I part C, title I part D, or State implementation plans submitted in accordance with section 110 of the Clean Air Act (and not disapproved by the Administrator of the Environmental Protection Agency), including any schedule or waiver granted, promulgated, or approved under these sections.

42 U.S.C. § 9601(10)(H); *see also* 42 U.S.C. § 11004(a)(2)(A) (defining release for which notice is required as a release that is “not a federally permitted release as defined in . . . 42 U.S.C. § 9601(10)).<sup>8</sup>

Thus, a release is “federally permitted” if it is both regulated under the CAA, and also incorporated into a facility’s permit.

Both Suncor and the Division admit that the purpose of Suncor requesting an HCN limit is to exploit this loophole in EPCRA and CERCLA that will allow Suncor to avoid reporting its HCN emissions. The Division is explicit that “the purpose for the HCN emission limit is to avoid CERCLA and EPCRA reporting requirements.” Final TRD at 18 (“[T]he source is requesting a federally enforceable limit on HCN emissions in order to avoid reporting requirements under [CERCLA] and [EPCRA].”). Suncor was equally explicit when it requested the modification. Correspondence File at 2 (“Suncor does not want to maintain an ongoing continuous release report for HCN; therefore, we are requesting that CDPHE permit this into [the Suncor Plants 1 & 3] Title V Permit.”).

But the Division and Suncor are incorrect to suggest that a release can become “federally permitted” under CERCLA simply because the Division has decided to put a limit in Suncor’s Title V permit that is not implementing any actual federal air pollution control requirement. Although § 9601(10)(H) refers to emissions “subject to a permit or control regulation,” that phrase is modified by “under section 111, section 112, title I part C, title I part D, or State implementation plans submitted in accordance with section 110 of the Clean Air Act.” Focusing solely on the phrase “subject to a permit” gives the phrase unintended breadth and reads the long list of CAA provisions out of the statute entirely. *See Yates v. United States*, 135 S. Ct. 1074, 1085 (2015) (explaining the “principle of *noscitur a sociis*—a word is known by the company it keeps—to avoid ascribing to one word a meaning so broad that it is inconsistent with its

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<sup>8</sup> EPCRA’s notification requirement mirrors CERCLA, but requires facilities to notify local emergency planners, rather than the National Response Center, where facilities send their CERCLA reports. 42 U.S.C. § 11004(b)(1) (notice to “community emergency coordinator”); 42 U.S.C. § 9603(a) (notice to National Response Center); *see also* Arnold W. Reitze, Jr., *Emergency Response and Planning Requirements Applicable to Unpermitted Air Pollution Releases*, 2005 B.Y.U. L. Rev. 1075, 1119 (2005).

accompanying words, thus giving unintended breadth to the Acts of Congress.” (quotation omitted)).

To be “federally permitted,” a release must be “subject to a permit”—not just to any permit, but to a permit issued to implement several discrete provisions of the CAA. Suncor’s HCN emissions do not meet this definition, even if limited by its Title V permit, because there are no federal requirements specifically limiting Suncor’s HCN emissions. Final TRD at 18 (“HCN emissions are not subject to an underlying requirement.”). Nor is Suncor accepting this limit on HCN emissions in order to attempt to become a minor source for purposes of CAA section 112 regulations. *Id.* (explaining why “that is not the case in this situation”).<sup>9</sup> If it were, the limit would need to be less than 10 tpy. 42 U.S.C. § 7412(a)(1). The Division recognized as much when corresponding with Suncor during the permitting process:

This is a unique permitting situation for a source to take a voluntary limit on an individual HAP that isn’t intended to keep facility HAP limits below the major source level but to avoid a reporting requirement under CERCLA/EPCRA. I assume you are seeking a federally enforceable limit and not a state-only limit, so this response is based on that assumption. Since the purpose of this modification is to establish a limit for which there is no underlying applicable requirement and is being taken to avoid an applicable requirement, the Division believes this should be processed as a significant modification.

Correspondence File at 15.

The Division’s only response is that EPA has approved Colorado’s minor source permitting program and state regulations, that authorize CDPHE to limit a source’s potential to emit HAPs. According to the Division’s logic, EPA’s approval of the program makes any permit term or condition federally enforceable, and thus CDPHE has authority to regulate HCN because “the HCN limit will be federally enforceable.” RTC at 28–29. The Division’s argument is flawed for several reasons.

First, the Division’s argument disregards the fact that a “federally enforceable” limit on a facility’s release of a particular pollutant does not automatically make the facility’s release of that pollutant a “federally permitted release” under 42 U.S.C. § 9601(10)(H). Rather, any such limit must be established “under section 111, section 112, title I part C, title I part D, or State implementation plans.” 42 U.S.C. § 9601(10)(H).<sup>10</sup> It is undisputed that Suncor’s HCN limit

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<sup>9</sup> Petitioners do not believe that Suncor could receive such a limit, because it is already subject to the NESHAP for refineries, and because of its other emissions, it also cannot become a synthetic minor source. *See, e.g.*, 42 U.S.C. § 7412(a)(1).

<sup>10</sup> If Congress meant that any emissions release incorporated into a permit would be exempt from EPCRA or CERCLA, it would have said so, and would not have drafted the second clause of the statutory provision. *See In re Nofziger*, 925 F.2d 428, 445 (D.C. Cir. 1991) (if Congress had meant for one clause not to be modified by a consecutive clause, it would have omitted the latter clause). The Division’s reading of the statute renders the second clause of § 9601(10)(H) a

has nothing to do with CAA section 111, title I part C, or title I part D. Moreover, while the Division alludes to the possibility that the HCN limit is based on a rule that has been approved by EPA as part of Colorado’s CAA state implementation plan (“SIP”), this is untrue. *See* RTC at 28–29. When EPA approved Colorado’s potential to emit regulations for hazardous air pollutants, EPA explained: “SIP approval under section 110 of the CAA, however, only extends to the control of HAPs that are criteria pollutants.” 65 Fed. Reg. 79,750, 79,750 (Dec. 20, 2000).<sup>11</sup> Thus, EPA did not approve Colorado’s HAP Potential to Emit (“PTE”) regulations into Colorado’s SIP, but instead approved them pursuant to CAA section 112(l). *Id.* at 79,751 (“[W]e are approving the provisions in Regulation No. 3 and Regulation No. 8 pertaining to creating limits on potential to emit HAPs under section 112(l) of the CAA.”).

The fact that EPA approved Colorado’s HAP PTE regulations under section 112(l) does not make Suncor’s HCN limit a limit promulgated under CAA section 112. Nor does it even make the HCN limit “federally enforceable.” Rather, as EPA explained when approving Colorado’s PTE regulations, a limit will not be considered a federally enforceable section 112 limit if it does not “conform with the permit program requirements or the requirements of our underlying regulations.” *Id.* EPA declared that under such circumstances, it would “deem permit conditions not federally enforceable.” *Id.* That is exactly the circumstance here. Neither the Division nor Suncor contends that the HCN limit in question has anything at all to do with implementing CAA section 112 requirements. There is no specific federal section 112 NESHAP for HCN—it is only regulated through carbon monoxide as a surrogate.<sup>12</sup> Accordingly, Suncor’s HCN limit should not be considered a federally enforceable section 112 limit and must be identified as “state only” in Suncor’s Title V permit. *See* 5 Colo. Code Regs. § 1001-10:E.IV.A.2 (“Under this section IV, a source may apply for and obtain *state-only* or federally enforceable permit limits.”) (emphasis added).

The Division’s response also is flawed because Suncor’s HCN limit is not appropriately promulgated under the Division’s EPA-approved regulations designed to limit a source’s “potential to emit” HAPs. The purpose of a “potential to emit” limit on HAPs is to allow a

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nullity. *See Babbitt v. Sweet Home Chapter Cmty. for Great Or.*, 515 U.S. 687, 697–98 (1995) (discussing rule against surplusage).

<sup>11</sup> Legally and scientifically, HCN is neither a criteria pollutant nor a constituent of a criteria pollutant. It is not a volatile organic compound, and, as a gas, it is not a particulate. *See* 80 Fed. Reg. at 75,181 (defining HCN as an inorganic compound); ATSDR, *Hydrogen Cyanide* (updated Mar. 3, 2011), <https://www.atsdr.cdc.gov/substances/toxsubstance.asp?toxid=249> (defining HCN as both inorganic and a gas); EPA, *Draft Method OTM-29* at 1 (Mar. 2011), [www3.epa.gov/ttnemc01/prelim/otm29.pdf](http://www3.epa.gov/ttnemc01/prelim/otm29.pdf) (distinguishing methods for sampling HCN as a gas and as a particulate). Moreover, HCN is not regulated as a criteria pollutant in Suncor’s permit. *See* Final Modified Permit at 77–78 (listing HCN limit separately from criteria pollutant limits).

<sup>12</sup> The Division explained in the Final TRD that “HAP limits are generally only included [in] permits in order for a source to become a minor source for HAP emissions, in order to avoid major source NESHAP requirements but that is not the case in this situation.” Final TRD at 18. To be under the threshold, the HCN limit would need to be less than 10 tpy. *See* 42 U.S.C. § 7412(a)(1); *see also supra* p. 12 & n.9, 13 n.12. The 12.8 tpy limit is above this threshold. *See* Final Modified Permit at 78.

source of HAP emissions that *would otherwise be regulated* under § 112 to avoid classification as a major source by voluntarily agreeing to an enforceable restriction on HAP emissions.<sup>13</sup> As discussed above, it is undisputed that Suncor’s HCN limit not serve to restrict the facility’s emissions below the applicability threshold of any CAA requirement. The plain language of Colorado’s regulations makes it clear that they are intended for sources that want “to voluntarily limit hazardous air pollutant emissions *below emission thresholds*.” 5 Colo. Code Regs. § 1001-10:E-IV.B.1 (emphasis added); *see also, e.g., id.* § 1001-10:E-IV.B.2 (“The permit shall include practically enforceable permit conditions necessary to limit emissions of hazardous air pollutants *below emissions thresholds*. . . .” (emphasis added)).<sup>14</sup> Nothing in these regulations broadly authorize the Division to establish any sort of federally enforceable HAP limit for Suncor, regardless of whether that limit serves to restrict the facility’s emissions below the applicability threshold for a CAA requirement, or even whether the limit is designed to protect public health from air pollution. Accordingly, Suncor’s requested HCN limit lacks a legal basis and therefore may not be included in Suncor’s Title V permit as a federally enforceable permit condition. *See* 40 C.F.R. § 70.7(a)(5) (requiring that the permitting authority identify “the legal and factual basis for the draft permit conditions.”).

Further, the Division’s interpretation is inconsistent with EPCRA’s and CERCLA’s purposes. *See* H.R. Conf. Rep. No. 99-962, at 281 (1986), 1986 U.S.C.C.A.N. 3276, 3374. EPA’s own guidelines define the purpose of the reporting requirements as “providing a mechanism whereby the public authorities are notified of every potentially hazardous release as soon as possible.” EPA EPCRA/CERCLA Guidelines at 11. In providing for the “federally permitted release” exception to these reporting requirements, Congress meant to exclude those emissions that the federal government had already evaluated and regulated to the degree thought necessary to protect public health. *See Pakootas v. Teck Cominco Metals, Ltd.*, 830 F.3d 975, 985 (9th Cir. 2016) (explaining that CERCLA’s legislative history indicates that Congress likely intended CERCLA’s reporting requirements “to apply to emissions of hazardous substances up to the point where it ran into the Clean Air Act”). Indeed, CERCLA’s legislative history provides that “Congress has never said or suggested that a Federal permit amounts to a license to create threats to public health or the environment with legal immunity,” and cautions that the federally permitted release “exemptions are not to operate to create gaps in actions necessary to

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<sup>13</sup> *See* 57 Fed. Reg. 32,250, 32,279 (July 21, 1992) (“Title V permits are an appropriate means by which a source can assume a voluntary limit on emissions for purposes of avoiding being subject to more stringent requirements.”); 74 Fed. Reg. 51,418, 51,424 (Oct. 6, 2009) (explaining that potential to emit caps “prevent an existing source from becoming major”); *see also* Memo. from John Seitz & Robert I. Van Heuvelen, EPA, to EPA Division Directors at 5 (Jan. 25, 1995), <https://www.epa.gov/sites/production/files/2015-08/documents/ptememo.pdf> (“[Title V] permits could be used to establish federally-enforceable limitations that could ensure that the source is not considered a major source of hazardous air pollutants.”).

<sup>14</sup> Although Colorado Regulation 3, which applies to permitting, rather than HAPs emissions, is not relevant to Suncor’s modification, it contains similar provisions. *See, e.g.,* 5 Colo. Code Regs. § 1001-5:3B.II.A.7 (“A source that is voluntarily applying for a permit to create state-only or federally enforceable permit conditions, *as appropriate*, to limit the potential to emit . . . or hazardous air pollutants may request to obtain such limits in a construction permit.” (emphasis added)).

protect the public or the environment.” *Id.* at 985 n.10 (quoting 126 Cong. Rec. 30,897, 30,932–33 (Nov. 24, 1980) (statement of Sen. Randolph)).

Certainly, Congress did not intend for sources to be able to evade EPCRA and CERCLA reporting requirements simply by obtaining a state permit, especially if that limit does not protect public health from dangerous pollutants like HCN, and does not satisfy the CAA. *See generally* 42 U.S.C. §§ 7401(a)(2), (b)(1) (purpose of the CAA to protect public health), 7401(c) (purpose of CAA is “pollution prevention”), 7661a (prohibiting sources from operating without CAA permit that meets all applicable requirements); *see also e.g.*, 42 U.S.C. § 11041 (EPCRA provision stating that “[n]othing in this chapter shall . . . affect or modify in any way the obligations or liabilities of any person under other Federal law”). Unfortunately, under the Division’s approach, the public will be deprived of the information promised by EPCRA and CERCLA without any safeguard in place to ensure that public health is not at risk, and without any other mechanism to ensure quick public notice of unsafe HCN releases. Indeed, no more public notification is required. Instead, Suncor conducts an annual stack test and report the results to the Division 45 days later. Final Modified Permit at 87–88. This is hardly prompt notification of Suncor’s day-to-day HCN emissions, let alone the stack test results.

In sum, the Division has not offered an acceptable legal basis for including the HCN limit in Suncor’s Title V permit as a federally enforceable limit. The limit has no relationship to any “applicable requirement” under the CAA and does nothing to protect public health. Rather, the limit merely serves to deny the public the information about hazardous air emissions that it has the right to receive under CERCLA and EPCRA. EPA should reject Suncor’s attempt to circumvent EPCRA and CERCLA reporting requirements by utilizing its Title V permit in a way that Congress could not have foreseen or intended.

## **B. The Division Set an Unlawfully & Arbitrarily High HCN Emissions Limit.**

In unlawfully authorizing Suncor’s goal to avoid its EPCRA and CERCLA reporting requirements, the Division did not set an HCN emissions limit at a level that either reduces emissions or protects human health. Instead, the Division approved an emissions limit 1.5 times higher than Suncor’s actual measured emissions. Though purporting to rely on data from a stack test conducted pursuant to EPA’s Refinery Rule, the Division in fact set Suncor’s HCN emissions limit based on an estimate of emissions. More troubling, the Division did not attempt to determine whether the arbitrary emissions limit it set was more stringent than EPA’s emissions limit for HCN set using carbon dioxide as a proxy. Finally, the Division did not base the emissions limit on a level of HCN exposure that is safe for public health, but rather set a limit that will allow Suncor to continue polluting at above its current levels, irrespective of the health consequences.

### **1. CDPHE Set Suncor’s HCN Emissions Limit Based on an Arbitrary Estimate, Rather than Actual Emissions Data.**

For the first time, in response to comments, the Division recognizes that the only way it can set a state only limit is if it is a “technically accurate limitation.” RTC at 31 (citing Memo. from Kathie Stein, EPA, to Division Directors, EPA at 6 (Jan. 25, 1995),

<https://www.epa.gov/sites/production/files/2015-08/documents/potoem.pdf>). Because it was only in response to Petitioners' comments that the Division provided that rationale, cited that authority, and changed the citation in the permit itself, Petitioners did not have the ability to comment on this issue in detail during the comment period. This provides an additional reason for EPA to object to the permit modification, to assure the required opportunity to comment. 40 C.F.R. § 70.7(h); Colo. Rev. Stat. § 25-7-114.5(5) (comment procedures for permits); 5 Colo. Code Regs. § 1001-5:3D.IV (public comment requirements for Title V permits). As shown below, the HCN emissions limit is not technically accurate, and is therefore unlawful under the EPA guidance and state regulations the Division attempts to rely on. *See* RTC at 31. Moreover, the limit is also arbitrary because it is not supported by a rational analysis. EPA should object to the permit for both reasons.

Suncor conducted a one-time performance test for HCN emissions from its FCCU on September 2, 2015 for the purpose of EPCRA and CERCLA reporting. *See* Final TRD at 19.<sup>15</sup> Although this was before EPA finalized the Refinery Rule, EPA approved the results of the performance test as fulfilling the Rule's performance test requirement. *See id.*; *see also* 40 C.F.R. § 63.1571(a)(6)(i) (allowing facilities to use test results from between March 31, 2016 and February 1, 2016 to fulfill the performance test requirement when certain criteria are met). The performance test showed that Suncor's No. 1 FCCU emitted 1.94 lbs/hour of HCN (or 0.15 lbs/1,000 lbs coke burned). Correspondence File at 1. Because this rate—which is equal to 46.6 lbs/day—exceeds EPCRA's 10 lbs/day threshold, Suncor reported these emissions to the National Response Center. *Id.*<sup>16</sup> This data is available to the public, online. *See* U.S. Coast Guard, *Welcome to the National Response Center*, <http://nrc.uscg.mil/> (last visited Apr. 17, 2018).<sup>17</sup>

Suncor was unhappy with having to report its HCN emissions under EPCRA and CERCLA. On November 2, 2016, Suncor applied for a permit modification, candidly admitting

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<sup>15</sup> Suncor "indicated to the Division that they were aware that the FCCU was a source of HCN emissions," but until EPA compiled its AP-42 emissions factors for HCN in early 2015, Suncor used outdated HCN emissions factors that indicated the FCCU's HCN emissions were below the Colorado state APEN reporting threshold. APCD, *Divisions' Response to the Sahu Report* 35 (Jan. 2, 2018) ("Sahu Response") (Exhibit 17). Notably, even if Suncor's reliance on the outdated emissions factors arguably may have excused its failure to report its HCN emissions to the Division on its APEN, it does not excuse Suncor's failure to report its HCN emissions under EPCRA and CERCLA prior to 2015.

<sup>16</sup> Notifying the National Response Center does not relieve Suncor of its EPCRA reporting obligations to notify local emergency planners. 42 U.S.C. § 11004(b). Petitioners have no evidence that Suncor complied with its EPCRA obligations by notifying Adams County emergency planners of the results of its September 2015 HCN stack test.

<sup>17</sup> On the 2015 Report spreadsheet, see line 18995 (SEQNOS 1127398) on tabs 1 (Calls) and 2 (Incident Commons) (describing Suncor's call). According to the National Response Center's database, the first time Suncor filed an annual report on its HCN releases was by telephone on September 2, 2015. On that call, Suncor reported that it was filing an "initial report of a continuous release of hydrogen cyanide ... due to EPA changing their emission factors." At that time, Suncor reported that "[t]he upper bounds limit has not been determined."



to the Division that “Suncor does not want to maintain an ongoing continuous release report for HCN; therefore, we are requesting that CDPHE permit this into [the Suncor Plants 1 & 3] Title V Permit.” Correspondence File at 2. Suncor initially estimated its emissions to be 8.56 tpy (1.94 lbs/hour), based on the level of HCN emissions actually measured during the September 2, 2015 stack test when the FCCU was running at 99.5% capacity. *Id.* at 1.

But Suncor later revised that estimate upwards. On November 29, 2016, Suncor emailed the Division, asking it to “take a look” at a new method of calculating the refinery’s PTE HCN. *Id.* at 42. The new method was based not on actual emissions from Suncor’s September 2015 stack test, but rather on using the FCCU’s coke burn-off rate as a proxy. Specifically, Suncor used “two years’ worth of coke burn data” to calculate an average coke burn, then applied “3 standard deviations to account for operational variability around coke burn.” *Id.* Thus, under Suncor’s proposed methodology, a new HCN permit limit was calculated based on three standard deviations above Suncor’s average coke burn rate. *See id.* This new limit was 12.8 tpy, more than 1.5 times Suncor’s actual HCN emissions measured in September 2015. *Id.* at 45.

The Division accepted Suncor’s proposed methodology, explaining that “[t]his will be hard to believe, but it actually doesn’t matter to me how you come up with the annual coke burn-off value. I assumed you would likely base it on actual data, and what you have done sounds like a good method.” *Id.* at 42. With Suncor’s assent, *see id.* at 41, a member of the Division’s staff then made handwritten notes on Suncor’s permit modification application to reflect the new, higher permit limit. *Id.* at 39.

The Division included the 12.8 tpy limit in the proposed permit modification. Even though the HCN permit limit was in fact based on a PTE methodology calculated as three standard deviations above the average annual coke burn rate, the technical review document for the proposed modification stated that “[t]he HCN limit is based on the results of a performance test conducted on September 2, 2015.” APCD, *Draft Technical Review Document for Modification to Operating Permit 96OPADI20* at 17 (May 11, 2017) (Exhibit 18). The Division acknowledged that “[t]he annual HCN limit will be based on the lb/1000 lb coke burn-off rate, in lieu of the lb/barrel emission factor included in the application . . . [t]he source submitted information on November 29, 2016 indicating the requested annual coke burn-off rate and emissions based on that rate.” *Id.* at 18. The Division did not acknowledge, however, that this was a theoretically-calculated value, nor that it was significantly higher than actual HCN emissions measured during the stack test.

Further, the actual language in the final permit approved by the Division functionally allows Suncor to choose an HCN emission limit based on either the coke burn-off rate or its actual emissions, depending on which is higher. The Division requires Suncor to conduct an annual test of its HCN emissions. Final Modified Permit at 87–88. During the test, Suncor must determine whether its actual HCN emissions fall within the 12.8 tpy limit, and also record the coke burn-off rate to compare it with the emission factor specified in the permit. *Id.* at 88.

If the performance test shows that the HCN emission factor is greater than the one set forth in this permit, and in the absence of subsequent testing results to the contrary (as approved by the Division), the permittee shall apply for a modification

to this permit to reflect, at a minimum, the higher emission factor within 60 days of the completion of the test.

*Id.* Thus, not only did the Division allow Suncor to request an HCN emissions limit based on a theoretical value that is well above the only measured emissions to date, but the Division has also created an explicit safety valve for Suncor to further increase the limit should measured emissions in fact prove to be higher than the already lax emission limit of 12.8 tpy.<sup>18</sup>

By acknowledging that multiple stack tests may show a very different picture of Suncor's actual HCN emissions than the single September 2015 stack test, the Division lends additional credence to an expert report submitted on Petitioners' behalf by Dr. Ranajit Sahu. Dr. Sahu questioned the validity of the Division purportedly relying on a single stack test as the basis for the HCN limit. Dr. Ranajit (Ron) Sahu, *Technical Report on the Proposed Modification of Suncor's Title V Permit No. 96OPAD120* at 20 (Aug. 1, 2017) ("Sahu Report") (Exhibit 19). Dr. Sahu explained that the proposed TRD did not explain with any detail about why the single stack test was representative of Suncor's HCN emissions. *Id.* In response to Dr. Sahu's comment, rather than admit that the stack test was not, in fact, the basis for Suncor's HCN limit, the Division instead stated that under 5 Colo. Code Regs. § 1001-5:3B.II.A.7, "actual test results are the preferred method to estimate emissions for purposes of APEN reporting, thus relying on actual test results for a permit limit is certainly reasonable." Sahu Response at 35.

Even though the Division chose to accept Suncor's proposal to use the coke burn-off rate instead of stack tests to set Suncor's HCN emission limit, it took a different approach in responding to Dr. Sahu's comment. The Division explained that it had reviewed Suncor's September 2015 performance test and that it was "an acceptable basis for setting an emission limit." *Id.* at 36. The Division emphasized that calculating emissions based on "actual test results" is "the preferred method," yet nevertheless approved Suncor's HCN permit limit based on an estimate derived from a proxy. The Division's decision to rely on an upper-bound estimate derived from the lb/1000 lb coke burning limit, rather than the actual stack test data (or indeed, representative data from multiple stack tests), is arbitrary, unsupported, and contradicts its own reasoning. EPA should therefore object to the permit. *See* 40 C.F.R. § 70.7(a)(5) (establishing that CDPHE must provide a statement justifying the legal and factual basis for permit conditions); 40 C.F.R. § 70.7(h) (requiring public notice to assure public participation); *In re Duke Energy, LLC Asheville Steam Electric Plant*, Petition No. IV-2016-06, at 16 (June 30, 2017) (granting petition to object to permit where "the permit record as a whole is inadequate for the EPA to sufficiently evaluate the Petitioner's claim").

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<sup>18</sup> It appears that this provision may have been included in the permit in response to Suncor's concerns about conducting more a single HCN stack test. *See* Correspondence File at 41 ("You had mentioned that you would probably require periodic performance tests for HCN-is there any flexibility on this? 63.1571(a)(6) requires the "one-time" test. My concern is that we'll end up repermitting HCN every time we do a performance test-and that would be cumbersome."). The Division explained in response to Dr. Sahu that Suncor "did not want any further testing," and that even the one-time performance test requirement in the draft permit did not mean the Division was "acquiesc[ing] to Suncor." Sahu Response at 36.

Moreover, Petitioners argued that there was not “sufficient evidence in the record to determine that coke burn-off is a reasonable proxy for HCN emissions.” Supplemental Comments at 10. The Division responded that “[s]ince the performance test determined the HCN emission rate in terms of lbs of HCN per 1000 lbs of coke burn-off, HCN emissions are clearly dependent on the quantity of coke burn off. Thus limiting the quantity of coke burn off will also limit the HCN emissions.” Letter from Jackie Joyce, APCD, to Joel Minor, Earthjustice, re: Response to Supplemental Comments on Draft Revised Operating Permit at 21 (Jan. 2, 2018) (“Response to Supplemental Comments”) (Exhibit 20). But Suncor’s choice of coke burn-off as a denominator to use in a performance test does not mean that coke burn-off is, in fact, the best, or even a correct, measure of HCN emissions. The Division argues that HCN is formed when coke is burned during FCCU catalyst regeneration. *Id.* at 21–22. But the Division still has not provided clear, scientific evidence showing that HCN formation is mathematically tied to the rate of coke burn-off. Absent any technical or mathematical analysis of the relationship between coke burn-off and HCN formation, there is insufficient information in the record to determine that the coke burn-off rate is a reasonable proxy for HCN formation. *See In re Duke Energy Asheville Steam Electric Plant* at 16. EPA should therefore object to the permit modification setting the arbitrary HCN emission limit.

**2. The Division Has Not Demonstrated that Suncor’s HCN Limit Is at Least as Stringent as Federal Requirements.**

Additionally, the Division has not demonstrated that the 12.8 tpy HCN permit limit is at least as strict, or more strict, than the 500 ppm carbon monoxide limit established by EPA’s Refinery Rule. States may not set emissions limits less stringent than federal standards. 42 U.S.C. § 7416. The Division did not evaluate whether the 12.8 tpy HCN limit is at least as, or more strict, than EPA’s existing 500 ppm carbon monoxide standards used as a surrogate to regulate HCN emissions. *See* 80 Fed. Reg. at 75,203–04. The Division has not shown that the 12.8 tpy limit will not allow more HCN emissions than would otherwise be allowed by the 500 ppm carbon monoxide surrogate standard. Absent such an explanation, the Division’s decision to approve the 12.8 tpy HCN emissions limit is arbitrary and unlawful. EPA is therefore obligated to object to the permit modification. *See* 42 U.S.C. 7661d(b)(2); 40 C.F.R. § 70.8(c)(1) (EPA must object to a permit that is not in compliance with the CAA).

**3. Suncor’s HCN Emissions Limit Does Not Protect Public Health.**

The Division did not attempt to determine whether the HCN emissions limit it set would protect human health from HCN exposure until after Petitioners raised the issue in their comments. Even then, the Division devoted most of its response to a convoluted and flawed argument that it lacks authority to set an HCN limit at any level beyond the one that Suncor requests. This is contrary to the CAA, and the state law provisions that the Division relies upon are inapposite. Moreover, the Division’s limited and largely undisclosed modeling does not show that Suncor’s HCN emissions are in fact safe for human health. EPA should object to the Division’s twisted pretzel of a legal argument that it somehow has authority to set an HCN limit at Suncor’s request to avoid its normal obligations to report pollution, RTC at 29–31, but somehow lacks authority to set a lower limit that protects the public from pollution, *id.* at 32–34.

**a. CDPHE Has Authority to Set an HCN Emissions Limit that Is More Stringent than Federal Requirements.**

Petitioners argued in their Comments that, based on the provisions of Colorado law cited in the proposed permit, the Division did not have authority to set an emissions limit purely for the purpose of allowing a source to avoid its EPCRA and CERCLA obligations. Comments at 48. In response, the Division added three new regulatory citations to the final permit. RTC at 29–30.<sup>19</sup> But the Division did not stop there. The agency went on to respond to Petitioners’ comment with the astonishing claim that the Division lacks legal authority to set emissions limits stricter than federal requirements. RTC at 32–33. This legal position is inconsistent with federal law, represents a misinterpretation of state statutes and regulations, and is inconsistent with CDPHE’s ordinary practice.

First, the CAA explicitly allows states to set emissions standards that are more stringent than federal law—exactly what CDPHE claims it lacks authority to do. As discussed above, *see supra* p. 19, EPA has not established a NESHAP for HCN, so there is no federal standard that might conflict with a standard set by Colorado. Nevertheless, the Division argues that it cannot “set HAP requirements beyond the requirements set forth in federal NESHAP requirements.” RTC at 32. This interpretation is flatly inconsistent with the CAA, which provides that:

nothing in this chapter shall preclude or deny the right of any State or political subdivision thereof to adopt or enforce (1) any standard or limitation respecting emissions of air pollutants . . . except that if an emission standard or limitation is in effect . . . under . . . section 7412 . . . such State or political subdivision may not adopt or enforce any emission standard or limitation which is less stringent than the standard or limitation under such plan or section.

42 U.S.C. § 7416. The CAA explicitly reserves to CDPHE exactly the authority that it claims it lacks: setting an emissions standard stricter than federal requirements, including for facilities and pollutants regulated under CAA § 112.

The Division’s rationale is rooted in the claim that because Colorado has adopted federal NESHAP regulations by reference, it cannot go beyond those requirements. *See* RTC at 9–10, 32. This is a non-sequitur. Because there is no NESHAP for HCN, Colorado adopting federal NESHAP requirements by reference has no bearing on the state’s ability to regulate HCN.

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<sup>19</sup> The Division also dismisses Petitioners’ argument that Colorado law gives CDPHE broad authority to set standards to foster “health” and achieve the “maximum practical degree of air purity in every portion of the state.” Colo. Rev. Stat. § 25-7-102. The Division claims that it is more appropriate to look at specific AQCC regulations than this broader statute. RTC at 32. But again, agencies and courts alike must “give effect, if possible, to every clause and word of a statute.” *Duncan v. Walker*, 533 U.S. 167, 174 (2001) (quotation omitted). The Division is not free to pick and choose which sections of the Colorado Air Pollution Prevention and Control Act it will implement.

Apparently recognizing this, the Division advances the convoluted argument that, because in the Refinery Rule, EPA explained that it chose not to set a NESHAP for HCN, and considered carbon monoxide to be a surrogate, the Division “does not have the authority to set lower emissions limits than those included in the underlying [carbon monoxide] NESHAP.” RTC at 33.<sup>20</sup> But the fact that the NESHAP restricts carbon monoxide, and there is no NESHAP for HCN, does not mean that the Division cannot set a more restrictive HCN limit in the permit. Moreover, although EPA has identified carbon monoxide as a proxy for HCN, it is not a perfect proxy because, *inter alia*, HCN does not share chemical behaviors with organic HAPs, and the dataset that EPA relied upon to reach this conclusion was incomplete. Fox Report at 6–13.

Further, the state law provisions the Division cites as authority for it to set HCN permit limits do not constrain the agency’s authority to set the standards at a level that protects public health. *See* RTC at 32. First, the Division relies on a regulation that provides that “[a] source that is voluntarily applying for a permit to create state-only or federally enforceable permit conditions, as appropriate, to limit the potential to emit criteria, pollutants, GHG or hazardous air pollutants may request to obtain such limits in a construction permit.” 5 Colo. Code Regs. § 1001-5:3B.II.A.7. Nothing in this provision restricts the Division’s authority to set a health-protective HCN standard—it simply provides that operators may request voluntary emissions limits to be added to their permits. The very concept of a voluntary emissions limit necessarily refers to an emissions limit that goes beyond federal law; emissions limits required by federal law are, by definition, non-voluntary. *See* 42 U.S.C. § 7661a(a) (establishing that non-compliance with the CAA violates federal law).

Another regulation the Division cites as authority allows the agency to modify permit emissions limits for HAPs “in order to create state-only . . . practically enforceable permit conditions.” 5 Colo. Code Regs. § 1001-5:3B.II.A.4.<sup>21</sup> A state-only requirement is also a permit condition, that, by definition, goes beyond federal law.

The Division also recognized that a “state only” emissions limit for HCN is allowable under its regulations. *See* RTC at 28–29. The third and final regulation that the Division

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<sup>20</sup> Under the CAA, the Division may not impose an emissions limit that is weaker than a NESHAP. 42 U.S.C. § 7416. Thus, the Division’s own logic underscores that the HCN limit as unlawful, because the Division has failed to demonstrate that the 12.8 tpy HCN emissions limit is not more lax than the Refinery Rule carbon monoxide limit. *See supra* p. 19. This alone requires EPA to object to the permit modification. *See* 40 C.F.R. § 70.7(a)(5) (requiring that the permitting authority identify “the . . . factual basis for the draft permit conditions.”); *In re Duke Energy, LLC Asheville Steam Electric Plant* at 16 (granting petition to object to permit where “the permit record as a whole is inadequate for the EPA to sufficiently evaluate the Petitioner’s claim”).

<sup>21</sup> The regulation also provides “that the applicant may decline to accept such modifications and elect instead to forego limits on its potential to emit or pursues any right of appeal or other available alternative.” 5 Colo. Code Regs. § 1001-5:3B.II.A.4. Thus, Suncor could have declined to follow a stricter emissions limit than the one it proposed. But the Division never proposed a stricter limit, and Suncor’s ability to reject a hypothetical proposal does not and should not limit the Division’s *authority* to set a stronger, health-based limit.

references as providing it authority to regulate HCN provides that “a source may apply for and obtain state-only or federally enforceable permit limits.” 5 Colo. Code Regs. § 1001-10E.IV.A.2. The Division argues that because it is treating the modification as significant, the emissions limit is federally enforceable, and therefore not a state only emission limit. *See* RTC at 28–29. But, it was the Division itself that decided to process the modification as federally-enforceable instead of state-only:

This is a unique permitting situation for a source to take a voluntary limit on an individual HAP that isn’t intended to keep facility HAP limits below the major source level but to avoid a reporting requirement under CERCLA/EPCRA. I assume you are seeking a federally enforceable limit and not a state-only limit, so this response is based on that assumption. Since the purpose of this modification is to establish a limit for which there is no underlying applicable requirement and is being taken to avoid an applicable requirement, the Division believes this should be processed as a significant modification.

Correspondence File at 15. The Division’s argument is entirely circular—because the Division (not Suncor) chose to treat the voluntary HCN limit as federally-enforceable rather than state-only, the Division lacks the authority to set a stricter limit. Yet, under the Division’s flawed logic, if instead it had chosen to treat the modification as a state-only limit, then the Division would have had authority to set a stricter limit.

Finally, as discussed above, although the Division can set an HCN limit that is stronger than federal requirements, the Division lacks authority to set a state-only HCN limit that allows Suncor to evade EPCRA and CERCLA requirements. *See supra* pp. 10–15. Colorado has a history of adopting state-only regulatory requirements, even for pollutants that are not directly regulated under the federal CAA. For example, in 2014, CDPHE adopted methane emissions standards for the oil and gas sector. *See* 5 Colo. Code Regs. § 1001-9:XX (statement of basis and purpose for 2014 amendments). These standards were stricter than federal law—EPA did not adopt its own methane emissions standards until two years later. *See* 81 Fed. Reg. 35,824 (June 3, 2016); 40 C.F.R. § 60.5360a(a) (directly regulating methane).<sup>22</sup> If CDPHE can set methane emission standards despite the lack of federal regulations, there is no reason it cannot also regulate HCN emissions.

#### **b. The Division Did Not Set a Health-Based HCN Limit.**

The Division set Suncor’s HCN limit based on an overestimation of the facility’s current emissions, not to protect public health. After significant public outcry, the Division at least modeled fence-line HCN levels. The Division claimed that the modeling showed safe HCN

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<sup>22</sup> The Division also argues that it cannot set a lower limit on HCN emissions than Suncor’s requested limits because there is no National Ambient Air Quality Standards (“NAAQS”) for HCN, and therefore it cannot determine if the modification will comply with a NAAQS. RTC at 34. This is a straw man. CDPHE frequently issues permits for emissions of HAPs that do not have NAAQS. Nor is the lack of a NAAQS a barrier to CDPHE regulating methane. *See* 5 Colo. Code Regs. § 1001-9:XX.

levels. In fact, the Division used flawed metrics, and the modeled levels pose human health concerns using more appropriate metrics. The Division provides no support for its claim that the modeled levels are safe for human health in fenceline communities. EPA should object to the permit because the Division failed to provide sufficient information for EPA or the public to evaluate the basis for its modeling assumptions. *See In re Duke Energy Asheville Steam Electric Plant*, at 16 (granting petition to object to permit where “the permit record as a whole is inadequate for the EPA to sufficiently evaluate the Petitioner’s claim”). In addition, EPA should also object because the Division arbitrarily claims that a 0.005 ppm exposure level is safe for the fenceline community, despite relying on a metric that is not designed for that purpose.

Petitioners argued that the Division must set an HCN emissions limit at a level that the Division reasonably determined is protective of public health. Comments at 49–50. In response, “in order to address public concern regarding HCN emissions,” the Division conducted modeling of HCN emissions from both Plants 1 & 3 and Plant 2, and concluded that the maximum 1-hour average fenceline concentration would be 0.005 ppm. RTC at 34; Final TRD at 18–19. The Division did not disclose the methods or assumptions used for this modeling, and instead merely included a single picture showing the results. Final TRD at 55. In the absence of any explanation of the process to model HCN emissions and impacts to potentially exposed fenceline communities, Petitioners and EPA are left unable to interpret the health consequences that may occur. The Division’s failure to provide a reasoned explanation, and show how and what it modeled, is grounds for EPA to deny the proposed permit modification. *In re Duke Energy Asheville Steam Electric Plant*, at 16.

Dr. Sahu also commented that “modeling should be conducted and the results of modeling . . . compared to a reference exposure level in order to address potential public exposure impacts and establish an HCN limit that actually protects public health.” Sahu Report at 20. In response, the Division simply provided the results of its own modeling, again with no explanation of its methods or the assumptions of its model. Sahu Response at 36. The Division also argued that it was “not required to model and assess impacts” because there is no HCN NAAQS, and further that it lacked authority “to require monitoring of ambient air for HAP emissions.” *Id.* at 36, 38. This legal argument is incorrect for the reasons explained above. *See supra* pp. 20–22.

Moreover, the Division’s explanation that the modeled 1-hour average fenceline HCN concentration is 0.005 ppm and thus lower than other federal limits does not support a health-based finding, because the other limits it discussed are not calculated to determine safe exposures for fenceline communities. In fact, the 0.005 ppm level is well above the 0.0007 ppm RfC for chronic health effects—which is a relevant measure when considering health risks to fenceline communities.<sup>23</sup>

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<sup>23</sup> In addition to acute and chronic human health risks, HCN also poses safety risks. The Center for Disease Control and Prevention (“CDC”) has noted that due to HCN’s chemical properties, HCN gas “mixes well with air, and explosive mixtures are easily formed.” CDC Nat’l Inst. for Occupational Safety & Health, *Hydrogen Cyanide (AC): Systemic Agent* (Nov. 9, 2017), [https://www.cdc.gov/niosh/ershdb/emergencyresponsecard\\_29750038.html](https://www.cdc.gov/niosh/ershdb/emergencyresponsecard_29750038.html). Explosive potential is severe when HCN is exposed to heat or flame or to alkaline agents. The CDC goes on to

One of the federal limits the Division identified was the OSHA Permissible Exposure Limit (“PEL”). Final TRD at 19. The PEL represents a time-weighted average concentration that should not be exceeded over the course of eight hours. OSHA, *Permissible Exposure Limits/OSHA Annotated Table Z-1* (last visited Apr. 16, 2018), <https://www.osha.gov/dsg/annotated-pels/tablez-1.html>. This limit is set to protect workers who may be exposed to varying concentrations over the course of the work day, and is not comparable to the emissions that will impact those living near the fenceline every day, for their entire lives. *Id.* Similarly, the NIOSH Recommended Exposure Limit (“REL”) is also a time-weighted average concentration and it accounts for up to 10-hour workdays. NIOSH, *NIOSH Pocket Guide to Chemical Hazards* (last updated Mar. 7, 2016), <https://www.cdc.gov/niosh/npg/pgintrod.html>. Neither the OSHA PEL nor the NIOSH REL take into account varying susceptibility factors (i.e. pregnant women, children, the elderly, individuals with disabilities, etc.) and instead are based on health impacts to healthy adult men.

Nor are EPA’s Acute Exposure Level Guidelines (“AELGs”) an appropriate indicator of a health based limit for fenceline communities, because they are based on levels appropriate for emergency planners and responders “as guidance in dealing with rare, usually accidental, releases of chemicals into the air.” EPA, *About Acute Exposure Guideline Levels (AELGs)* (last updated Sept. 7, 2016), <https://www.epa.gov/aegl/about-acute-exposure-guideline-levels-aegls>. The application of the AELG is strictly for emergency situations and should not be considered applicable for long-term, continuous emissions exposure. *Id.*

As noted above, *see supra* p. 5, EPA’s own chemical assessment division evaluated HCN for chronic health effects, and set a health-protective RfC of 0.0008 mg/m<sup>3</sup> (0.0007 ppm), which notes critical impacts on the endocrine system. Studies considered in the evaluation of inhalation exposure noted “increased pregnancy complications and decrements in learning and memory in offspring of women with subclinical hypothyroidism.” EPA IRIS, *Hydrogen Cyanide and Cyanide Salts; CASRN Various* (Sept. 2010), [https://cfpub.epa.gov/ncea/iris/iris\\_documents/documents/subst/0060\\_summary.pdf#nameddest=rfc](https://cfpub.epa.gov/ncea/iris/iris_documents/documents/subst/0060_summary.pdf#nameddest=rfc). EPA’s toxicological review states that:

Although cyanide is a known neurotoxicant, a dose-response characterization of neurodevelopmental toxicity resulting from competitive inhibition of iodide uptake in the thyroid gland by its thiocyanate metabolite has not been demonstrated. This relationship is complicated by the interdependence of several factors including the intake of iodine, protein, and selenium (and likely additional micronutrients), exposure to other chemicals that modify thyroid function, and pre-existing thyroid conditions (Pearce and Braveman, 2009; Triggiani et al., 2009). However, based upon the mode of action of thyroid disruption and studies following offspring

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further state, “the agent or its vapors present a vapor explosion and poison (toxic) hazard indoor, outdoors, or in sewers.” *Id.* Given the highly explosive nature of this compound and the presence of other compounds with which HCN may come into contact at the facility, the potential for an explosion, fire, or other accidents must be evaluated and taken into consideration when setting a permissible HCN emission limit.



neurodevelopment and pregnancy outcomes of hypothyroid mothers, it is clear that the developing fetus and infant are at a disproportionately high risk from chemicals such as cyanide, which antagonize thyroid function.

IRIS Toxicological Review at 64. The Toxicological Review also cites other susceptible populations, including pregnant and lactating women, due to increased need for iodine during these periods and the ability for the metabolite thiocyanate to inhibit iodide uptake. *Id.* at 42–45, 62–65.

Because some subgroups are more at risk from HCN exposure than others, it is more appropriate to determine safe HCN exposure based on EPA’s RfCs than its AEGLs. The Division’s choice to rely on inappropriate metrics is arbitrary, and is grounds for EPA to object to the permit modification.

### **C. The HCN Emissions Limit Lacks Adequate Provisions to Assure Compliance**

EPA is compelled to object to the HCN emissions limit modification because it does not have sufficiently strong provisions to assure compliance with the emissions limit. The CAA requires permits to include all conditions necessary to assure compliance with all applicable requirements. 42 U.S.C. § 7661c(a), (c).

In their comments, Petitioners informed the Division that if it chose to set an HCN emissions limit for Suncor, that limit must be enforceable—it must include adequate monitoring, testing, and enforcement. Comments at 49–50 (citing 42 U.S.C. §§ 7661a(b)(5)(A), 7661c(a), 7661c(c); 40 C.F.R. §§ 70.6(a)(1), 70.6(a)(3), 70.6(c)(1)); *see also* Sahu Report at 20. The Division agreed. *See* RTC at 31 (“In order to be federally enforceable, such limits should also be practically enforceable,” which includes a “method to determine compliance including appropriate monitoring, record keeping and reporting.”); *see also* Correspondence File at 14 (“Voluntary HAP limits still need to be practically enforceable, so any requested limit would be accompanied by additional requirements to make that limit practically enforceable, such as throughput limits, additional performance test requirements and monitoring operating parameters.”).

But by exempting Suncor from its EPCRA and CERCLA reporting, the Division has cut off the public’s only easily accessible source of information about Suncor’s HCN emissions. In place of EPCRA and CERCLA’s reporting requirements, the Division has imposed only minimal reporting requirements on Suncor. Under the permit terms, Suncor need only report the results of its annual tests to the Division once a year, within 45 days of the annual test (unless the Division provides a longer period). Final Modified Permit at 88. The Division argues that Suncor also must submit semi-annual monitoring and permit deviation reports and annual compliance certifications. Response to Supplemental Comments at 20. But because of the flawed nature of setting an emissions limit based on coke burn-off rate as a proxy for actual emissions, the information in these monitoring, permit deviation, and compliance certification reports may not include any information on Suncor’s actual HCN emissions. Instead, they may only include information on the coke burn-off rate.

Moreover, there is no provision for making the results available to the public. This is particularly troubling because under EPCRA and CERCLA, Suncor's reports on its HCN emissions would be available to local emergency planners, and in a national, online database, respectively. The Division argues that the HCN limit itself is transparent because the permit is publicly available on the Division's webpage and Suncor must apply for a permit modification to revise the HCN emissions limit. Response to Supplemental Comments at 20. But the permit does not provide information on Suncor's actual HCN emissions. The Division also notes that HCN emissions must be included on revised APENs, which Suncor "typically" submits annually. *Id.* at 21. But there is no requirement that Suncor submit annual APENs for the FCCU. The frequency with which Suncor voluntarily requests modifications to a specific piece of equipment should not be the determinant of whether emissions data about a dangerous pollutant is available to the public.

## V. Conclusion

For the reasons set forth above, EPA must object to the Title V permit modification issued by CDPHE for the Suncor Refinery in Commerce City, Colorado.

Respectfully submitted via EPA's Central Data Exchange on April 17, 2018, on behalf of Colorado Latino Forum, Colorado People's Alliance, Cross Community Coalition, the Sierra Club and its Colorado Chapter, and Western Resource Advocates.

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**List of Exhibits**

<b>Exhibit</b>	<b>Document</b>
1	APCD, <i>Operating Permit: Suncor Energy (U.S.A.) Inc. – Commerce City Refinery, Plant 1 (West Plant) and Plant 3 (Asphalt Unit) Draft Operating Permit</i> (Feb. 22, 2018)
2	Jacqueline Joyce, APCD, <i>Technical Review Document for Modification to Operating Permit 96OPAD120</i> (Jan. 2018)
3	Earthjustice, <i>Request for Public Comment Hearing on Suncor Energy (U.S.A.), Inc. Commerce City Refinery—Plants 1 and 3—Adams County, Title V Operating Permit Modification (96OPAD120)</i> (June 9, 2017)
4	Email from Theresa Martin, AQCC, to Joel Minor, Earthjustice (June 12, 2017)
5	Comments of Colorado Latino Forum, et al. (Aug. 1, 2017)
6	APCD, <i>Response to General Citizen Comments re Suncor Plants 1 &amp; 3 Draft Title V Permit Modification</i> (Jan. 2, 2018)
7	Supplemental Comments of Colorado Latino Forum, et al. (Aug. 9, 2017)
8	Email from Jackie Joyce, APCD, to Joel Minor, Earthjustice (Jan. 2, 2018)
9	Correspondence File documents that are relevant to the HCN emissions limit are attached to this Petition
10	EPA Integrated Risk Information System (“IRIS”), <i>Toxicological Review of Hydrogen Cyanide and Cyanide Salts</i> (2010)
11	EPA, <i>Final Residual Risk Assessment for the Petroleum Refining Source Sector</i> (2015)
12	EPA, <i>2014 NEI Data, Facility Maps &amp; Data, State (Colorado) Pollutant (Hydrogen Cyanide-74908)</i> (last updated Mar. 2, 2018)
13	Comments of Environmental & Community Groups (Oct. 28, 2014)
14	Phyllis Fox, <i>Report on Hydrogen Cyanide Emissions from Fluid Catalytic Cracking Units</i> (Oct. 28, 2014)
15	EPA, <i>Enforcement Response Policy for Sections 304, 311 and 312 of the Emergency Planning and Community Right-to-Know Act and Section 103 of Comprehensive Environmental Response, Compensation and Liability Act</i> (1999)
16	Letter from Jackie Joyce, APCD, to Joel Minor, Earthjustice, re: Response to Comments on Draft Revised Operating Permit (Jan. 2, 2018)
17	APCD, Divisions’ Response to the Sahu Report (Jan. 2, 2018)
18	APCD, <i>Draft Technical Review Document for Modification to Operating Permit 96OPAD120</i> (May 11, 2017)
19	Dr. Ranajit (Ron) Sahu, <i>Technical Report on the Proposed Modification of Suncor’s Title V Permit No. 96OPAD120</i> (Aug. 1, 2017)
20	Letter from Jackie Joyce, APCD, to Joel Minor, Earthjustice, re: Response to Supplemental Comments on Draft Revised Operating Permit (Jan. 2, 2018)