

BEFORE THE ADMINISTRATOR  
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

IN THE MATTER OF OPERATING	)	Petition of Louisiana Environmental
PERMIT CHLORPRENE UNIT	)	Action Network for a U.S. EPA
DUPONT DOW ELASTOMERS LA	)	Objection to Permit, Louisiana Review
PLACE ST JOHN THE BAPTIST	)	No. 17742, Agency Interest No. 38806
PARISH, LOUISIANA	)	

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**PETITION FOR EPA OBJECTION TO PERMIT**

The Louisiana Environmental Action Network ("LEAN") brings this Petition for a U.S. Environmental Protection Agency ("EPA") Objection to Permit pursuant to Clean Air Act ("CAA" or "Act") section 505(b), 42 U.S.C. § 7661(d)(b), and 40 C.F.R § 70.8(d). LEAN objects to the decision by the Louisiana Department of Environmental Quality ("LDEQ") to issue a Part 70 ("Title V") Operating Permit modification to Dupont Dow Elastomer ("Dupont") for its Chloroprene Unit in La Place, Louisiana. EPA should deny the permit request because emission limitations are based on LDEQ's arbitrary and capricious misreading of 40 C.F.R. § 63.115. LDEQ's decision would permit the untreated release, through process vents, of approximately 18.1 tons of chloroprene annually from the new reactor unit in question.<sup>1</sup> Chloroprene is a suspected carcinogen and reproductive toxin. Were LDEQ properly applying the rule, emissions would be less than 2 percent of that level - approximately 0.362 tons per year ("tpy").

LEAN is an incorporated, non-profit organization with members living, working and recreating in the La Place area. Its members participated in the Dupont Chloroprene Unit modification permit proceedings by submitting comments. All issues raised in this Petition have been raised in public comments before LDEQ.

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<sup>1</sup> According to Dupont's 1999 plant-wide Toxic Release Inventory, the entire facility released over 197 tons per year of chloroprene. The vast majority was emitted through various process vents. Most or all of these vents are governed by the provisions at issue here.

The facility in question is the Chloroprene Unit of the Dupont Dow Elastomers Pontchartrain Site. It is located in La Place, St. John the Baptist Parish, LA. Dupont is seeking a Part 70 Operating Permit for its Chloroprene Unit. The overall goal of the permit is laudable. Dupont will reduce its total Volatile Organic Compound emissions. However, the continued emission of untreated chloroprene means that the community will see little actual benefit.

**I. IT IS ARBITRARY AND CAPRICIOUS FOR LDEQ TO INTERPRET 40 C.F.R. § 63.115 IN A MANNER THAT IS INCONSISTENT WITH THE REGULATORY GOALS OF 40 C.F.R. Pt. 63 AND THE CLEAN AIR ACT'S GOAL OF PROTECTING PUBLIC HEALTH.**

Any ambiguity in the regulatory language must be resolved in a manner consistent with the statutory and regulatory goal to protect public health. *See U.S. Nat'l Bank of Oregon v. Independent Ins. Agents of Am.*, 508 U.S. 439, 455 (1993) ("Over and over we have stressed that '[i]n expounding a statute, we must not be guided by a single sentence or member of a sentence, but look to the provisions of the whole law, and to its object and policy.' "); *see also Chemical Mfrs. Ass'n v. EPA*, 217 F.3d 861, 867 (D.C. Cir. 2000) (holding "it unreasonable for the Agency to have interpreted [a statutory phrase] without regard to the Clean Air Act's purpose"). Like statutes, regulatory interpretation is "a holistic endeavor" and "must account for a statute's full text, language as well as punctuation, structure, and subject matter." *See* 508 U.S. at 455.

As fully explained below, LDEQ has seized upon an ambiguity created by the fact that the language of 40 C.F.R. § 63.115 is not perfectly mirrored in a table (Table 1) used to calculate a key index value. LDEQ has proposed to adopt an interpretation of the regulation and table that would result in *less* treatment of a *more* dangerous class of materials (halogenated organic hazardous air pollutants) than of a less dangerous class of materials (non-halogenated organic hazardous air pollutants). In other words, LDEQ has proposed to resolve an ambiguity by

turning the Clean Air Act's goal of public-health protection on its head. This is an arbitrary and capricious result and EPA must veto it.

**II. CHLOROPRENE IS ONE OF AN EXTREMELY DANGEROUS CLASS OF POLLUTANTS CALLED HALOGENATED ORGANIC HAZARDOUS AIR POLLUTANTS.**

Chloroprene is a part of a class of chemicals called halogenated organic hazardous air pollutants (hazardous air pollutants is generally abbreviated as "HAPs"). In low concentrations, chloroprene can burn skin and eyes. In higher concentrations, it causes dizziness, lightheadedness and fainting. It is a suspected carcinogen, may cause birth defects and spontaneous abortions, and may interfere with sperm production.<sup>2</sup> Indeed, it was identified by Congress as a Hazardous Air Pollutant under the Clean Air Act § 112(b)(1), 33 U.S.C. § 7412(b)(1), and it is a Class II Toxic Air Pollutant under Louisiana law. *See* L.A.C. 33.III.5112.Table 51.1. As such it is "Suspected Human Carcinogens and Known or Suspected Human Reproductive Toxin." *Id.* LDEQ is currently proposing to allow this dangerous toxin to be discharged into the atmosphere without treatment at the Dupont plant.

However, chloroprene is not the only problem. Under LDEQ's interpretation of 40 C.F.R. § 63.115, *any* permittee in Louisiana could release large quantities of *any* of these halogenated organic HAPs -- a group that includes several known carcinogens. Indeed, the entire class of chemicals to which chloroprene belongs is very dangerous. Both the Louisiana Class I (Known and Probable Human Carcinogens) and Class II (Suspected Human Carcinogens and Known or Suspected Human Reproductive Toxins) are dominated by halogenated organic HAPs, such as vinyl chloride and carbon tetrachloride. *See* L.A.C. 33.III.5112.Table 51.

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<sup>2</sup> Information on health effects was taken from the New Jersey Dept. of Health and Senior Services' "Hazardous Substance Fact Sheet" on Chloroprene.

Because LDEQ's misinterpretation of the regulation could result in increased discharges of a wide variety of toxins, EPA must veto the Dupont permit and correct LDEQ's misinterpretation.

**III. LDEQ's MISINTERPRETATION IMPROPERLY LEAVES SOME VENT STREAMS UNTREATED AND RESULTS IN GREATER CONTROLS FOR NON-HALOGENATED VENT STREAMS THAN HALOGENATED VENT STREAMS, A NONSENSICAL RESULT GIVEN THE REGULATORY SCHEME.**

The arbitrary and capricious nature of LDEQ's decision is revealed by an examination of the regulatory scheme. The EPA has provided substantial and detailed regulations for dealing with organic HAPs in general. This entire class of pollutants, whether halogenated or not, is very dangerous. However, EPA has recognized the special dangers presented by halogenated organic HAPs. Therefore, EPA singled out halogenated organic HAPs for special treatment. *See generally* 40 C.F.R. § 63.113.

For example, in process vents like the ones at issue here, non-halogenated vent streams must be treated such that the total organic HAPs must be reduced by 98% by weight or to a concentration of 20 ppm by volume, whichever is less stringent. *See* 40 C.F.R. § 63.113(a)(1) & (a)(2). Halogenated vents, however, must be treated with a combination of incineration and a "halogen reduction device, including but not limited to a scrubber." *Id.* § 63.113(c)(1). This process must reduce the overall emissions of hydrogen halides and halogens by 99% or to less than 0.45 kg/hr, whichever is less stringent. *Id.* § 63.113(c)(1)(i).

These requirements are triggered when the vent stream in question (in this case, Source 1110-4 ) is deemed "Group 1." *See id.* § 63.111 (defining group 1 process vent); *id.* § 63.115 (setting forth "methods and procedures for process vent group determination"). This is determined in part by calculating the "Total Resource Effectiveness index value," generally referred to in the regulations as the TRE index value. *See id.* § 63.111 (definition of "Group 1 process vent" and TRE index value). The TRE index value reflects the amount of resources

required to reduce organic HAPs within a vent stream per unit of that reduction. *Id.* (definition of “Total resource effectiveness index value”). (Assuming other conditions are met, a TRE index value equal to or less than 1 will trigger Group 1 protocols.)<sup>3</sup>

The TRE index value calculation is extremely important, because Group 1 vent streams have treatment requirements while Group 2 vent streams have only monitoring and reporting requirements. *See generally id.* §63.113. Thus, for halogenated vent streams the difference between groups is a 98% reduction in emissions for Group 1 vent streams plus acid removal with a scrubber, versus no treatment at all for Group 2 vent streams. LDEQ’s arbitrary and capricious misinterpretation of EPA regulations puts Dupont’s process vents in Group 2, where a proper interpretation would put the vents in Group 1.

**IV. 40 C.F.R. § 63.115 IS SUBJECT TO A RATIONAL INTERPRETION CONSISTENT WITH THE GOALS OF THE CLEAN AIR ACT.**

The TRE index value is calculated according to formulas contained in 40 C.F.R. § 63.115 of Chapter 40. For halogenated vent streams, the TRE index value is to be calculated “based on the use of a thermal incinerator with 0 percent heat recovery, and a scrubber.” *Id.* § 63.115(d)(3)(iii). This is to be done by inserting the “applicable coefficients” found in a table, Table 1, at the end of the subpart, into a formula contained in § 63.115(d)(3)(i). The table is found in the appendix to subpart G of the regulation and appears just after the end of § 63.152. The table appears substantially as shown below, except that values for b, c, & d are not included because they are secondary to the analysis.

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<sup>3</sup> The vent must also have a flow rate “greater than or equal to 0.005 standard cubic meter per minute” and a “total organic HAP concentration [ ] greater than or equal to 50 parts per million by volume. 40 C.F.R. § 63.111 (definition of Group 1 process vent).

Type of Stream	Control Device Basis	Value of Coefficients			
		a	b	c	d
Non Halogenated . . . . .	Flare	1.935			
	Thermal Incinerator 0% Heat Recovery	1.492			
	Thermal Incinerator 70% Heat Recovery	2.519			
Halogenated . . . . .	Thermal Incinerator and Scrubber	3.995			

Consistent with the goals of the Clean Air Act, the nature of the classes of chemical emissions at issue, and common sense, table 1 must be read as follows: The “Flare” coefficient is potentially applicable only to non-halogenated vent streams. The “Thermal Incinerator and Scrubber” coefficient is potentially applicable only to halogenated vent streams (pursuant to 40 C.F.R. § 63.113(c)(1)). And the two descriptions in the middle of the table (“Thermal Incinerator 0% Heat Recovery” and “Thermal Incinerator 70% Heat Recovery”) are not limited by “Type of Stream,” in table 1, and thus must be used whenever required by 40 C.F.R. § 63.115(d)(3)(ii) & (iii).

The correct coefficient to use for Dupont’s type of vent stream is “Thermal Incinerator 0% Heat Recovery.” Because that coefficient results in a TRE value that classifies Dupont’s vent stream as a Group 1 process vent stream, a scrubber is required under 40 C.F.R. § 63.113(c)(1). Next, a second, post-treatment calculation of the TRE is necessary using the “Thermal Incinerator and Scrubber” coefficient to ensure that the vent qualifies as a Group 2 process stream vent.

Under 40 C.F.R. § 63.115(d)(3)(iii), owners and operators “*shall* calculate the TRE index value based on the use of a thermal incinerator with 0 percent heat recovery, *and* a scrubber.” Emphasis added. This section potentially requires two calculations, just as 40 C.F.R. § 63.115(d)(3)(ii) requires three calculations. If the calculation using the table 1 coefficient for “Thermal Incinerator 0% Heat Recovery” results in the vent being classified within Group 1 (i.e. a TRE of less than one, 40 C.F.R. § 63.111) then a scrubber is required. 40 C.F.R. §

63.113(c)(1) (Group 1 process vents require a scrubber before discharge). When a scrubber is required, the calculation must be repeated using the co-efficient for “Thermal Incinerator and Scrubber.” 40 C.F.R. § 63.115(d)(3)(iii). This explains the fact that the coefficient for the “Thermal Incinerator and Scrubber” appears so large – because the “Thermal Incinerator 0% Heat Recovery” coefficient will have already been used to require significant treatment. Id.

Any other use of the table 1 coefficients would render the phrase “thermal incinerator with 0 percent heat recovery” as used in § 63.115(d)(3)(iii) meaningless and would result in the nonsensical application of an unreasonably large coefficient for “Thermal Incinerator and Scrubber” to allow irrationally large untreated releases from halogenated vent streams, as compared with the releases allowed from non-halogenated streams.

**V. LDEQ HAS MISREAD 40 C.F.R. § 63.115.**

Apparently seizing on the fact that table 1’s “control device basis” language does not exactly mirror the language of 40 C.F.R. § 63.115(d)(3)(iii), LDEQ has proposed to ignore the purpose of the regulations and the regulatory phrase “thermal incinerator with 0 percent heat recovery” (in § 63.115(d)(3)(iii)). LDEQ proposes to improperly allow Dupont to use the “Thermal Incinerator and Scrubber” coefficient without first calculating the TRE with the “Thermal Incinerator 0% Heat Recovery” coefficient. The result is an improperly high TRE index value. Indeed, in Dupont’s case, its claimed TRE index value is 2.110. However, using Dupont’s figures from its permit application and applying them to the proper “thermal incinerator with 0% heat recovery” coefficients yields a TRE index value of 0.8746 – triggering Group 1 treatment and requiring Dupont to treat its vent streams with thermal incineration followed by acid removal by a scrubber. *See* 40 C.F.R § 63.113(c)(1). The end result should be a 99% reduction in chloroprene emissions. *See id.* § 63.113(c)(1)(i).

The perversity of LDEQ's approach to 40 C.F.R. § 63.115(d)(3)(iii) is revealed in the irrational result it creates for halogenated versus non-halogenated vent streams. Specifically, under LDEQ's interpretation, non-halogenated vent streams would be roughly twice as likely to require the strictest treatment as halogenated vent streams, even though the regulatory scheme clearly contemplated that the opposite should be true. Note that the "a" coefficient for *non-halogenated* streams vented to a flare is 1.935, less than half that of the "a" coefficient that LDEQ is allowing Dupont to use in analyzing its *halogenated* vent streams. 40 C.F.R. Part 63, Subpart G, Appendix Table 1 (located after § 63.152). (Remember that the "a" coefficient in TRE index value calculations has a huge impact on the final result.)

LDEQ's arbitrary and capricious interpretation thus applies to the more dangerous class of chemicals fewer controls than are applied to the less dangerous class of chemicals. This result is simply unsupportable. It unnecessarily and improperly compromises public health and violates both the spirit and the letter of the Clean Air Act and the resulting regulations. EPA can not, and should not, allow it to stand.

For all of the foregoing reasons, EPA must object to and veto the Operating Permit for the Chloroprene Unit Dupont Dow Elastomers. Accordingly, this Petition must be GRANTED.

Respectfully submitted this 13<sup>th</sup> day of November, 2001,

TULANE ENVIRONMENTAL LAW CLINIC

BY: \_\_\_\_\_  
Adam Babich, La. Bar No.: 27177  
Attorney for LEAN  
6329 Freret Street  
New Orleans, Louisiana 70118  
(504) 865-5789