

JUL 01 2015

Fr: Philip Nolan, MPH  
E 3362 Royalton Street  
Waupaca, WI 54981

To: U.S. EPA Administrator  
401 M Street, S.W.  
Washington, D.C. 20460

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Return Receipt

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Appeal to EPA to Reconsider its Decision Not To Object To Permit 469033730-P10  
June 25, 2015

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At the March, 13 2015 permit hearing this commenter objected that the renewal permit allows Waupaca Foundry Plant 1 HAP emission concentration which exceeds 4.59  $\mu\text{g}/\text{m}^3$  (EXHIBIT 1).

According to the Clean Air Act s. 112(b) any concentration greater than 4.59  $\mu\text{g}/\text{m}^3$  creates human inhalation risk for cancer greater than  $10\text{E}-5$  (CASRN 71-43-2 / IRIS Screening and Assessment).

The EPA 45-day review period ended on May 17, 2015. EPA found no reason to object to the Waupaca Foundry Plant 1 Title V renewal permit.

Region 5 EPA claimed that s. 112 does not apply because Wisconsin has been delegated authority to regulate HAP under 40 CFR 63 Subpart EEEEE MACT (EXHIBIT 2). This claim appears incorrect because Subpart EEEEE, ¶63.7765 incorporates Section 112(b).

EPA has exercised discretion, has disregarded ¶63.7765 of 40 CFR 63 Subpart EEEEE. EPA has disregarded the definitions and prescribed procedures of s. 112 (b). EPA considers CASRN 71-43-2 unacceptable methodology to estimate ambient concentrations of a given pollutant. Under CASRN 71-43-2 screening protocol establishes concentration and evaluation tabulates the linkage / connection between concentration (DOSE) and inhalation risk (RESPONSE). However, EPA considers AERMOD preferable for estimating concentration because it features a stationary plume that incorporates air dispersion based on planetary turbulence and scaling concepts for different height and terrain complexities.

The validity of this discretion ought to be substantiated objectively by EPA Residual Risk Review and Technology Review (RRR/TA).

Within eight years of promulgating any NESHAP/MACT EPA implements RRR/TA. Accordingly, EPA must be able to show that its discretionary disregard of ¶63.7765 is based on RRR/TA. Otherwise there is no objective basis for disregarding ¶63.7765; no legitimate evidence-based reason to consider that AERMOD modeling is preferable to IRIS screening and evaluation procedure (see Footnote).

Region 5 EPA has provided no RRR/TA to justify its discretionary disregard of ¶ 63.7765 (s. 112(b): Benzene, CASRN 71-43-2.)

EPA must have implemented applicable RRR/TA between 2007 - 2015. However, new credible evidence (EXHIBITS 3, 4) justifies further RRR/TA. Credible evidence shows:

- \* Waupaca Foundry HAP emission creates for Waupaca County concentrations much greater than 4.59  $\mu\text{g}/\text{m}^3$ .
- \* Waupaca County's excess Leukemia / Non Hodgkins Lymphoma mortality rates are attributable to these intolerable concentrations.

This commenter has asked the Administrator to consider new credible evidence and apply EPA's 2-step RTR risk analysis procedure (EXHIBIT 5). This appeal re-iterates that request because:

- 1) Waupaca Foundry is a major source comprised of two Title V operations under common control. Both operations are in contiguous areas of the City of Waupaca, WI.

- 2) Credible evidence is derived from two sources:
- i. Twenty years of Waupaca County's combined HAP emissions are sourced from NR 438 Actual Annual Emission Inventory. These comprise DOSE.
  - ii. Waupaca County's excess Leukemia and Non Hodgkins Lymphoma mortality rates are sourced from the Wisconsin Cancer Registry. These comprise RESPONSE.
- 3) Waupaca County's HAP emissions and excess mortality rates are connected by standard public health biometric procedures. These procedures yield several decades of DOSE-RESPONSE. These procedures demonstrate that Waupaca Foundry HAP emission has created Waupaca County's excess Leukemia and Non Hodgkins Lymphoma mortality. This excess mortality has caused substantial adverse economic impact on Waupaca County's economy.

NESHAP is the basis for ensuring that any renewal permit provides adequate public health protection. Adequate public health protection is consistent with economically feasible strategies that would recycle Waupaca Foundry's air-waste emission. These strategies would marshall available technology and resources to collect, sort and redistribute Waupaca Foundry's air-waste components into beneficial reuse channels.

The credible evidence shows Waupaca Foundry's emission concentration exceeds NESHAP. Credible health information (DOSE - RESPONSE) shows that Waupaca Foundry's HAP emission is not tolerable; creates substantial health and economic loss to Waupaca County.

"Ground truth" concentration (DOSE) and "ground truth" impact (RESPONSE) justify EPA's objection to this renewal permit.

#### Summary and Conclusion:

Region 5 EPA has claimed that s. 112(b) does not apply to issuance of this renewal permit. This claim lacks merit because s. 112(b) is part of 40 CFR 63 Subpart EEEEE.

EPA discretion must be justified by objective RRR/TA assessment conducted between 2007 - 2015. RRR/TA should demonstrate that IRIS screening and assessment procedure is not valid: cannot demonstrate Waupaca Foundry's HAP emission concentrations and their human health consequence.

Even if EPA has RRR/TA showing that definitional parts of ¶63.8865 should be discredited new credible evidence makes it incumbent on EPA to implement further RRR/TA. The credible evidence connects Waupaca Foundry's actual emission concentrations with Waupaca County's excess mortality rates and these rates' impact on the county's economy.

Disregarding the credible evidence (DOSE - RESPONSE) would exacerbate, worsen Waupaca County's excess mortality; contravene the Act.

RRR/TA assessment of the credible evidence should provide EPA the reasonable basis needed for objection; for requiring WDNR to issue promptly a correct renewal permit.

The final correct renewal permit should incorporate a plan for the strategic, cooperative, profitable beneficial reuse of Waupaca Foundry's air-waste emission.

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#### Footnote:

The 1996 SAB (EPA-SAB-IHEC-ADV-96-004) advised EPA to collect environmental data for the dual purposes of assessing regulatory compliance and advancing environmental science. This would improve future protection of public health. SAB stressed the need for EPA to verify the performance of AERMOD by comparing its predictions with "ground truth" data.

AERMOD follows this algorithm axiom: Garbage In -> Garbage Out. AERMOD can not / does not morph emission-stack information into human receptors / valid human health information.

AERMOD "input" for this permit is not foundry emission reasonably connected to local human health; AERMOD "output" for this permit has no valid connection / relation to local human health.

AERMOD's Gaussian plume models may seem to be reasonable approximations of concentration and spatial resolution near major sources. However, its a fact that AERMOD frequently results in

concentration estimates that deviate from "ground truth" data by orders of magnitude. SAB has cautioned EPA that AERMOD results for environmentally persistent toxic substances are likely to understate true inhalation exposures. Simpler models are more reliable, easier to evaluate and verify.


The statistical parameters that depict normal (Gaussian) distributions are not reliable depictions of actual emission plumes. "Ground truth" images of actual emission plumes show they are not Gaussian structures and cannot be considered modified Gaussian structures: EXHIBIT 6.a, EXHIBIT 6.b.

Normal statistical distributions do not describe actual emission plumes. There is no way to consider actual air-waste emission plumes as Gaussian plumes.

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attached: EXHIBITS 1-6

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by:   
Philip Nolah, MPH

Copies to:

U.S. EPA Administrator, Region 5  
Secretary, WI Department of Natural Resources  
Waupaca Foundry, Inc.  
Senator Tammy Baldwin