



Connecticut Bureau of Air Management, Carmine DiBattista  
Maine Bureau of Air Quality Control, James Brooks  
Massachusetts Bureau of Waste Prevention, Barbara Kwetz  
New Hampshire Air Resources Division, Robert Scott, Acting  
New Jersey Office of Air Quality Management, John Elston  
New York Division of Air Resources, Robert Warland  
Rhode Island Office of Air Resources, Stephen Majkut  
Vermont Air Pollution Control Division, Dick Valentinetti

To: Mary Johnson, U.S EPA  
From: Margaret Round, NESCAUM  
Date: August 21, 2002

Subject: Comments for August 21, 2002 Public Hearing on August 21, 2002 from the Air Quality and Public Health Committee on EPA NESHAPs for Brick and Structural Clay Products Manufacturing and Clay Ceramics Manufacturing

Thank you for the opportunity to comment on the proposed NESHAP for the Brick and Structural Clay Products Manufacturing and the NESHAP for Clay Ceramics Manufacturing. The following comments focus specifically on EPA's proposal to include risk-based exemptions in the rule. NESCAUM intends to provide detailed comments on all aspects of EPA's proposal by the September 20, 2002 deadline. As you may be aware, most of the northeast states have travel bans due to state budgetary constraints. Therefore, we are unable to provide oral comments at the August 21, 2002 public hearing in Research Triangle Park, North Carolina. We request that the following comments be entered into the record as an addendum to the transcript of the public hearing.

For the last 35 years, NESCAUM has been providing scientific, technical and policy support to our member states on air pollution issues of regional interest. The member states include the New England states, New York and New Jersey. The Northeast states have implemented risk-based air toxic control programs for over 20 years.<sup>1</sup> As a result, the NESCAUM Air Quality and Public Health Committee possess both extensive public health risk assessment expertise as well as practical knowledge in the implementation of risk-based air toxic programs. The committee has worked closely with EPA since the 1990 Amendments were passed in providing technical review and practical experience in all aspects related to the development and implementation of Title III regulations.

---

<sup>1</sup> EPA should refer to their National Air Toxics Clearinghouse (NATICH), which provided a detailed description of state air toxic programs throughout the 1980's. More recently, a comprehensive summary of state and local air toxic program activities was provided to EPA in the Appendices to the Recommended Framework for State/Local/Tribal Air Toxic Risk Reduction Program, Final Workgroup Report, September 2000.

Kenneth A. Colburn, Executive Director  
129 Portland Street  
Boston, Massachusetts 02114  
Phone (617) 367-8540  
Fax (617) 742-9162  
[www.nescaum.org](http://www.nescaum.org)

### General Comments:

Overall the MACT standard program has succeeded in implementing Congress' mandate that directs EPA to adopt technology-based MACT standards first and then revisit those standards several years later to determine if high risks still remain in the vicinity of MACT-affected sources. The establishment of risk-based exemptions into the MACT program will derail the regulatory progress established over the past 10 years to implement a uniform federal air toxic program. In fact, states do not have the authority to provide risk-based exemptions for sources subject to MACT standards under their Title V operating permit program because such authority is inconsistent with the 1990 Amendments.

The MACT program was specifically created to establish a level playing field of air pollution control across the U.S. It was designed to avoid the paralyzing litigation that virtually halted the risk-based NESHAP program in the 1970's and 1980's. This first phase of the national air toxics program represents a tremendous step forward in reducing public health risks associated with exposure to air toxics throughout this country. However, it is only the first step. The National Air Toxics Assessment (NATA) demonstrates that exposure to air toxics remains too high throughout the country. Therefore, risk-based exemptions must be removed from any consideration in the MACT standard process. EPA should devote their resources toward finalizing the 10-year control technology standards and implementing the Congressionally mandated residual risk program as expeditiously as possible.

### Specific Comments:

Specific concerns regarding EPA's proposal to exempt facilities from MACT standards either through applicability cutoffs for threshold pollutants, establishing a subcategory that can be delisted, or any other similar risk-based approach mentioned in EPA's proposal are outlined below. In general, the comments address four concerns with EPA's proposal: (1) The proposal is not consistent with the Agency's guidelines and policies to conduct human health and ecological risk assessments; (2) The proposal is not consistent with the Agency's policies on the classification of carcinogens and non-carcinogens; (3) The proposal does not consider the cancer and non-cancer health effects of pollutants in developing the risk-based exemption approach; and (4) The proposal does not take into account the costs and resources that are required to implement risk-based exemptions in the current MACT standard program.

- (1) The proposal is not consistent with the Agency's guidelines and policies to conduct human health and ecological risk assessments.

EPA has not provided the procedural or technical basis for conducting risk-based exemptions in the MACT standard program. Furthermore, the current proposal does not adhere to existing Agency guidelines for conducting consistent human health and ecological risk assessments. For example, the proposal is not consistent with the Agency's established guidelines for characterizing the human health and ecological risks

associated with exposure to environmental pollutants.<sup>2</sup> These guidelines provide a framework for summarizing the four steps identified by the Agency as necessary to conduct risk assessments (i.e., hazard identification, exposure assessment, dose-response assessment, and risk characterization). The proposal also does not incorporate risk assessment guidelines for conducting multi-pathway risk assessments – which is critical because the major pathway of exposure to toxic metals emitted by the brick/structural clay/ceramic clay sector is food. The proposal also requests comments on elements in the risk-based exemption approach that the Agency has already established guidelines on. For example, EPA requests comment on the appropriateness of including non-inhalation exposure when, in fact, over five years ago the Agency's has established guidelines for cumulative risk assessment that specifically require the consideration of non-inhalation pathways of exposure in human health risk assessments.<sup>3</sup>

(2) The proposal is not consistent with the Agency's policies on the classification of carcinogens and non-carcinogens.

EPA's proposal to apply applicability cutoffs based on the contention that each of the pollutants emitted from the source are threshold pollutants and that the emissions will not exceed threshold levels, with an ample margin of safety, is unfounded. Of the ten metals EPA is regulating under this proposal eight are known or probable human carcinogens (i.e., arsenic and hexavalent chromium are known human carcinogens, and cadmium, beryllium, nickel compounds, lead, and selenium are probable human carcinogens.) EPA provides no scientific evidence that some of these metals may at some time in the future be reclassified as threshold pollutants. Evidence for known or probable carcinogenicity of these metals is well documented by EPA in the current proposal, on U.S. EPA's Integrated Risk Information System (IRIS), and by International Agency for Research on Cancer (IARC) in monographs published in 1987 and 1994.<sup>4</sup>

(3) The proposal does not consider the cancer and non-cancer health effects of pollutants in developing the risk-based exemption approach.

The risk-based exemptions that EPA is proposing do not take into account the nature and scope of the public health risks associated with emission from the affected source category. For example, the metals emitted from the brick/clay/ceramic manufacturing sector are ubiquitous and persistent in the environment. Exposure is rarely to individual pollutants but a complex mixture. As such, the role of metals as promoters or co-carcinogens with organic carcinogens must be considered and addressed in evaluating risks to human health. In addition, several factors that influence the toxicity

---

<sup>2</sup> EPA Risk Characterization Program, March 21, 1995; see National Center for Exposure Assessment website for guidelines ([www.epa.gov/ncea](http://www.epa.gov/ncea))

<sup>3</sup> Cumulative Risk Assessment Guidance- Phase I Planning and Scoping, July 3, 1997.

<sup>4</sup> IARC: Monographs on the Evaluation of Carcinogenicity: An Update of IARC Monographs. Lyons: World Health Organization, International Agency for Research on Cancer, 1987. Vol. 1-42. Suppl 7.; and IARC: Monographs on the Evaluation of Carcinogenicity: Monographs on the Evaluation of Risks to Humans: Cadmium, Mercury, Beryllium, and the Glass Industry. Lyons: World Health Organization, International Agency for Research on Cancer, 1994. Vol. 58

of metals are not taken into account in the proposal.<sup>5</sup> These include the interactions with essential metals, formation of metal-protein complexes, age and stage of development of the exposed population, lifestyle factors, chemical form or speciation and immune status of the host. The proposal also ignores the cumulative risks that result from exposure to metals and highly irritating gases (i.e., HF and HCl). Although each by itself may pose a risk below a designated threshold, the accumulation of these pollutants and simultaneous exposure to the complex mixture is not addressed in the proposal. This is particularly important to include in the risk assessment because gas-particle phase interactions may enhance the toxicity of the mixture, especially in sensitive subpopulations, including asthmatics.<sup>6</sup>

(4) The proposal does not take into account the costs and resources that are required to implement risk-based exemptions in the current MACT standard program.

The lack of specificity in the current proposal implies that EPA has not considered the substantial costs and resources necessary to implement risk-based exemptions in the current MACT program. EPA merely scratches the surface in identifying the nature and scope of the work that would be required for the types of human health and ecological risk assessments necessary to ensure that the facilities exempted from the MACT regulation do not pose adverse risks to human health or the environment. For example: (1) EPA provides no consideration of the fact that states do not have the authority to provide risk-based exemptions for sources subject to MACT standards under their Title V operating permit program. In this regard, EPA does not consider the costs and resources associated with the public process required in reviewing and approving the proposed approaches and, if approved, making the substantial changes to existing regulations; (2) The proposal does not consider the costs and resources for developing methods and guidance for human health and ecological risk assessments of affected sources; (3) The proposal does not consider the costs and resources for state agencies to review the assessments and ensure adequate public participation in the process. This is particularly critical considering the current budget constraints in state agencies throughout the country; (4) Once guidance is developed, EPA has also not considered the resources and costs associated with collecting and verifying the source-specific data needed for conducting human health and ecological risk assessments; (5) While the northeast states have extensive experience in implementing risk-based air toxic programs, many other state and local agencies must rely on the U.S. EPA for a comprehensive program. EPA has not considered the costs and resources associated with ensuring that consistent guidelines are implemented throughout the U.S; and (6) NESCAUM is not aware of any practicable and verifiable method to ensure source emissions remain below a specified emission level since MACT standard applicability is the gate-keeper for being subject to the federal air toxic regulations, including but not limited to a Title V operating permit. Once the source is exempt from the MACT standard – which is the intent of this proposal – the source would not be subject to

---

<sup>5</sup> Goyer, Robert A. Toxic Effects of Metals in Casarett and Doull's Toxicology: The Basic Science of Poison, Fifth Edition, McGraw Hill Publishers.

<sup>6</sup> Ibid. Costa, D and Mary Amdur. Air Pollution, Chapter 28.

monitoring, reporting, and record-keeping requirements that are needed to demonstrate compliance. The current proposal does not consider the costs and resources that would require an entire layer of compliance on sources that are not covered under the Title V operating permitting program.