

purchase and install new air pollution controls.

While off-site waste and recovery operations and hazardous waste TSDF already should be properly equipped to receive and manage remediation materials from cleanup sites subject to the final Site Remediation NESHAP, there are no existing rules requiring all owners and operators performing cleanups of contaminated materials containing organic HAP to ship the remediation materials to such facilities. It is possible that there are special circumstances where remediation material is transferred to a facility other than a facility subject to subpart DD under 40 CFR part 63 or a hazardous waste TSDF. We also must address the potential for circumvention of the final rule's purpose at a site where the remediation material is simply excavated or extracted and then intentionally transferred outside the site's legal boundaries to avoid having to use air pollution controls. Thus, the level of control reflecting MACT provided by subpart DD under 40 CFR part 63 (and the corresponding RCRA subtitle C rules for air emissions) is not necessarily being provided for all remediation waste transfer operations, so a MACT standard would not merely duplicate existing regulatory requirements. In those cases where an off-site facility is receiving remediation material subject to regulation by the final Site Remediation NESHAP, but units at the facility currently are not using the air pollution controls required by the final Site Remediation NESHAP, the facility owner or operator has the option of declining to accept the remediation material from the cleanup site or installing the required air pollution controls on just those units that manage the remediation material.

While it is essential that the off-site transfer provision be included in the final Site Remediation NESHAP to ensure remediation materials from cleanup sites subject to the final rule are managed and treated in units using appropriate air pollution controls regardless of the units' location, we have reviewed the proposed recordkeeping, certification, and notification requirements associated with the off-site transfer provision. We can simplify the administrative requirements for the facility owners and operators and still effectively implement and enforce the off-site transfer provision. Therefore, we have written the final rule to simplify the recordkeeping and certification requirements for both owners and operators of facilities shipping as well as receiving the remediation materials.

Finally, the off-site transfer provision is not intended to trigger a title V permitting requirement for the owner or operator of a facility that currently is an area source. To address this situation, we have added in the final rule an explicit provision stating that the acceptance by a facility owner or operator of remediation material from remediation site subject to the final Site Remediation NESHAP does not, by itself, require the facility owner or operator to obtain a title V permit.

IV. Summary of Environmental, Energy, and Economic Impacts

We prepared estimates of the environmental, energy, and economic impacts for the proposed rule based on the best information available to us including remediation waste quantity and treatment practice data for the year 1997 and earlier. No new information or data applicable to the impact estimates were provided by commenters on the proposed rule. Since proposal we have reviewed our data sources to determine the availability of additional information to update and supplement our original database used for the impact estimates. We concluded that our original database remains the best available source of information available to us for estimating impacts for the final rule.

Furthermore, the changes made since proposal for the final rule do not change any of the assumptions we made for our original impact estimates. Therefore, our impact estimates for the proposed rule remain valid and applicable for the final rule. These impact estimates are summarized below.

A. What Are the Air Emission Impacts?

We estimated nationwide organic HAP emissions from the site remediations potentially subject to the final rule to be approximately 1,140 Mg/yr. Nationwide VOC emissions from regulated sources are estimated to be approximately 7,360 Mg/yr. (Although not all VOC are organic HAP, we may permissibly note the air benefits from controlling non-HAP pollutants such as VOC when considering a MACT standard. See S. Rep. 101-228, 101st Cong. 1st sess. 172). We estimate that implementation of the final rule will reduce these nationwide air emissions by approximately 50 percent to 570 Mg/yr of HAP and 3,680 Mg/yr of VOC.

B. What Are the Cost Impacts?

The nationwide total capital investment cost and the annual operating cost of the control equipment required to comply with the final rule are estimated to be approximately \$18

million and \$6 million per year, respectively. When fully implemented, the final rule is estimated to result in a total annual cost of approximately \$9 million per year.

C. What Are the Economic Impacts?

The final rule will affect certain owners and operators of facilities that are major sources of HAP emissions and at which a site remediation is conducted to clean up soils, groundwaters, surface waters, or certain other materials contaminated with one or more of the organic HAP listed in the final rule. Because of the nature of activities regulated by the source category, a comprehensive list of NAICS codes cannot be compiled for businesses or facilities potentially regulated by the final rule. As a result, the economic impact analyses focused on a set of industries from the 1997 Biennial Reporting System (BRS) database that were known to be large quantity generators of hazardous waste and who were remediating hazardous waste as part of a site remediation. The data provides an adequate overview of the potential impacts of the final rule. However, we recognize that the actual industries directly impacted by the final rule in the year the final rule is implemented and the costs incurred by these industries may differ somewhat from the set of industries identified in the 1997 BRS data and the costs assigned to these industries for the purposes of the economic analysis.

In general, we did not find evidence of significant impacts at the industry level. From the BRS data, over 80 industries were predicted to have annual compliance costs as a result of the final rule, and 15 industries accounted for 91 percent of the national compliance cost estimate. We used an engineering or financial analysis to estimate impacts, which takes the form of the ratio of compliance costs to the value of sales (cost-to-sales ratio (CSR)). We calculated CSR for 12 industries and found all had CSR below 0.02 percent. The CSR are less than the lower quartile return on sales for all industries with profitability data available. We did not compute CSR for the remaining three industries because revenue data were not available.

The CSR will likely overstate the impact on firms and understate the impact on consumers. The CSR assumes that there are no changes in the market as a result of the higher costs of production faced by the firms and that the firms continue to produce the same quantities, sell at the same price and absorb the full amount of the compliance costs.