

follow-up conversations with representatives from five facilities with high solvent throughput rates that potentially are the most likely to control emissions from transfer operations, we determined that these facilities are not controlling their emissions from transfer operations. We also examined State regulations and determined that they apply only to throughput rates above those at coating manufacturing facilities, and they apply only to loading of tank trucks and railcars, which is less common than filling of smaller containers at coating manufacturing facilities. There are no other known means by which sources may be reducing emissions from transfer operations. Therefore, we concluded that the MACT floor for transfer operations at existing sources is no emissions reductions. Because we lack information indicating that any source is implementing or required to implement any measures to reduce HAP emissions from transfer operations, we concluded that the new source MACT floor also is no emissions reductions.

Comment: One commenter opposed the beyond-the-floor standard for existing and new sources. This commenter also claimed that we have not demonstrated that emissions from transfer operations warrant regulation because the facility on which impacts were estimated is not representative of the industry. The commenter contacted that facility and learned they primarily repack and distribute paint stripper, thinners, and spray gun cleaning solvent. According to the commenter, we generally overestimated emissions from transfer operations because we assumed that the industry transfers pure solvents or mixtures with high vapor pressures when in fact the industry transfers primarily materials with low vapor pressures, including waterborne products. Furthermore, the commenter stated that the regulatory alternative cannot be justified based on cost because the impacts are based on incorrect assumptions. For example, the commenter suggested the following changes: (1) Use the AP-42 saturation factor of 0.6 for submerged loading in dedicated vapor balance service instead of the assumption that displaced vapors are saturated; (2) use a tank truck filling rate of 25 gal/min instead of 150 gallons per minute (gal/min); (3) use characteristics of toluene (or better yet, xylene) instead of an arbitrary HAP with a molecular weight of 80 and a vapor pressure of 3.93 psia; (4) use a gas flow rate of 100 scfm instead of less than 4 scfm; (5) include capital costs for a refrigeration unit and auxiliary

equipment such as a precooler, ductwork, a fan, and pump for collected solvent; and (6) conduct the analysis over a range of coating throughput rates to bracket the actual operations in the industry. Taking these changes into account, the commenter estimated a cost of more than \$30,000/Mg for bulk loading tank trucks at rates between 1.8 million gal/yr and 7.3 million gal/yr. Another commenter stated that the standard should be no control.

Response: It appears that the first commenter thinks we used the results of the impacts analysis for one facility as the basis for our decision to set the existing and new source standards at a level beyond the floor. This is not correct. We actually conducted two analyses. The first was a sensitivity analysis, comparable to that suggested by the commenter, to determine the characteristics of emission streams for which the total impacts associated with a regulatory alternative that reduces emissions by 75 percent (the same level as the standard for stationary process vessels at existing sources) was reasonable. The second analysis involved estimating the impacts for existing facilities that met the characteristics from the first analysis.

Based on the results of our sensitivity analysis, we concluded that the total impacts are reasonable in light of the emissions reductions achieved if the coating products that are bulk loaded contain at least 3.0 million gal/yr of HAP with a partial pressure of at least 1.5 psia. The incremental HAP reduction achieved to meet the regulatory alternative for a model facility with these characteristics was estimated to be 10.8 Mg/yr, and the incremental cost was estimated to be \$3,200/Mg of HAP removed. These estimates assume the emissions are controlled using a condenser, and that the refrigeration unit used in the process vessels analysis can be replaced by one with a slightly larger capacity to accommodate all of the condensers. The incremental electricity consumption to operate the enlarged refrigeration unit is 3,200 kwh/yr, and the incremental fuel energy consumption to generate the electricity is 31 million Btu per year. Total CO, NO_x, and SO₂ emissions from combustion of the additional fuel is 0.03 Mg/yr. The condensed HAP would be a hazardous waste. There would be no wastewater or other non-air quality health or environmental impacts.

At the maximum product loading volume cited by the commenter, we estimate the HAP or solvent throughput would be about 2.0 million gal/yr (*i.e.*, based on an average 1.75 lb HAP/gal coating); thus, none of the bulk loading

scenarios evaluated by the commenter would be subject to control under the standard. However, we provide the following discussion of the analysis in the event that a facility may expand production beyond the rates used in the commenter's analysis, or the quantity of HAP in their product is higher than the average value that we used.

In our analysis, we assumed the emission stream is saturated because emissions occur only as a result of vapor displacement, and the vent from the tank truck or rail car can be hard-piped to a control device. Because our analysis assumes that the control is a condenser with coolant supplied from the same refrigeration unit that we assumed would be used with condensers for process vessel emissions, we did not include the cost of a separate refrigeration unit in this analysis. We also included a smaller maintenance labor factor than would be used for a separate refrigerated condenser system. These assumptions mean the costs for overhead, taxes, and capital recovery are lower in our analysis than the commenter's.

Although we agree that adding costs for a precooler, ductwork, and a pump would be reasonable, we note that the overall cost of the auxiliary equipment in our analysis equals more than 50 percent of the cost for all auxiliary equipment in the commenter's analysis, even though we have a much smaller condenser. Furthermore, based on the commenter's data, it appears that we overestimated the cost of the condenser and waste solvent storage tank, which offsets our lack of costs for other auxiliary equipment.

We assumed a fill rate of 30 gal/min, which we consider to be consistent with the commenter's suggested rate of 25 gal/min. This rate also defines the gas flow into the condenser in our analysis because the system can be hard-piped, and there is no need to include supplemental dilution air at a rate 25 times the flow of the displaced volume. As the commenter noted, we assumed the coating product consists only of HAP solvent and solids. This was done to simplify the analysis. Also, products that contain little HAP or less volatile HAP are not likely to meet the thresholds that we set. Finally, we note that our analysis likely overestimates the actual costs because we assumed a waste disposal unit cost four times higher than the cost the commenter considers to be realistic. Therefore, we maintain that for transfer operations meeting the specified flow rate and partial pressure levels in the regulatory alternative, the incremental cost to