

characteristics so that the standards can be applied consistently across the source category. We believe that this approach is consistent with the language of section 112(d)(3) that requires us to set the MACT floor based on the best-performing 12 percent of existing sources.

Aside from the MACT floor determinations, we also provided a pollution prevention compliance alternative to allow compliance with the standards by demonstrating a reduction in HAP usage per unit of product. This alternative enables owners and operators to comply using emission source reduction measures.

The above discussion notwithstanding, we decided to conduct a MACT floor analysis for storage tanks with capacities less than 10,000 gal. We concluded that the MACT floor for small tanks at existing sources is no emissions reduction because we have information from only eight sources that is not sufficient for setting a floor, and only one of the best-performing five sources is implementing controls. We did not specifically request information for tanks with capacities of less than 10,000 gal. Based on earlier EPA studies on the organic compound manufacturing industry (EPA-450/3-90-025), we estimate the actual number of storage tanks with capacities of less than 10,000 gal in our source category to be 30 percent of the total number of tanks, or approximately 500 tanks. The eight facilities reported information on 19 tanks, which is not enough information to set the floor. We also based the standard for existing storage tanks with capacities less than 10,000 gal on the MACT floor, because a regulatory alternative was determined to be unreasonable.

As for the new source MACT floor for storage tanks with capacities less than 10,000 gal, the best-performing source is controlling emissions from two small tanks by 98 percent with thermal incineration. One tank has a capacity of 9,800 gal and is storing material with a HAP partial pressure of 0.373 psia. The other tank has a capacity of 8,000 gal and is storing material with a HAP partial pressure of 0.574 psia. We consider the first tank to be more stringently controlled because partial pressure is the best indicator of emission potential and controlling a lower partial pressure is an indication of greater stringency. We compared this tank's characteristics to the new source MACT floor for larger tanks, which was set at 95 percent control for tanks with capacities of greater than 10,000 gal and storing materials with HAP partial pressures of 0.1 psia or higher. From an

analysis of the tanks in our database, we concluded that the new source MACT floor for larger tanks is more stringent than a floor based on 98 percent reduction for tanks storing material with a HAP partial pressure greater than or equal to 0.4 psia. Therefore, we concluded the new source MACT floor as proposed to be appropriate for all tanks.

Finally, we do not have any information indicating that storage tanks with capacities less than 10,000 gal are reducing emissions through measures other than control technologies. Accordingly, we lacked sufficient information to set a floor based on such measures.

The MACT floors for organic HAP emissions from batch and continuous process vents are 98 percent control because this level has been shown to be uniformly achievable by well-designed and operated combustion devices. During development of the HON, the EPA recognized that thermal incineration may achieve greater than 98 percent reduction in some cases, but test data show that levels greater than 98 percent may not be uniformly achievable under all operating conditions (59 FR 19420, April 22, 1994). Similarities in processes and resulting emission streams in this industry with that of the HON source category processes allow us to draw the same conclusions with regard to achievable combustion control efficiencies. A review of the batch process vent database indicates that most processes with overall control of 98 percent or greater are controlled using thermal incinerators and flares (110 of 132 processes). We found the performance level for the MACT floor to be 98 percent because as much as 15 percent of the 731 processes in the database were controlled by thermal incineration. Similarly, a review of the continuous process vent database indicates that most processes with overall control of 98 percent or greater are controlled using thermal incinerators and flares (31 of 37 processes). We found the performance level for the MACT floor to be 98 percent because as much as 15 percent of the 202 processes in the database were controlled by thermal incineration. We did not use reported control efficiencies for scrubbers used to control organic HAP because we do not know the fate of pollutants captured in the scrubber effluent. If some of these pollutants are re-released to the air, then the reported control efficiencies are not valid.

For equipment leaks, we considered various formats for the standard and

determined that a work practice standard based on an LDAR program is the most feasible. Unlike other emission sources, leaking components are not deliberate emission sources but rather result from mechanical limitations associated with process piping and machinery. A well-managed facility follows a preventive maintenance program to minimize leaks, but in all practicality cannot guarantee that no leaks will occur. Therefore, an emission standard for equipment leaks would not be feasible to enforce or prescribe. At the same time, our data indicate that the MACT floor for equipment leaks is an LDAR program. We also developed regulatory alternatives on the use of more effective LDAR programs. Finally, we note that enclosing components and venting to control is allowed, but except in limited cases, we expect the cost to be prohibitive.

Regarding the other commenters' suggestions, we note that the standards for all types of emission points contain cutoff values, consistent with our MACT floors, below which sources are exempt from control. We also concluded that our information did not allow us to develop a relationship between the various emission source types such that we could identify "insignificant" sources merely by the sum of actual emissions from process vents.

*Comment:* One commenter stated that we failed to properly evaluate beyond-the-floor options. According to the commenter, in some cases, we stated that the MACT floor option was the most stringent option without identifying or evaluating other options (e.g., LDAR for equipment leaks was assumed to be the most stringent option). In other cases, the commenter noted that the beyond-the-floor option is simply a lowering of the cutoff, and as discussed above for the MACT floor, the commenter stated that cutoffs should not be allowed. Also, where 98 percent control is the MACT floor, the proposed rule did not address why a beyond-the-floor option was not selected where data showed higher reductions are being achieved.

*Response:* Our beyond-the-floor options reflect the most stringent performance levels that have been proven and can be applied consistently across our source category. It is true that in many cases, the beyond-the-floor option was based on simply lowering a cutoff, similar to the discussion above for new sources. This is consistent with the intent of section 112(d)(3) because better-performing sources have lower cutoffs.

For example, for batch process vents at existing sources, we evaluated the