

### III. Summary of Responses to Major Comments

#### A. Why Did We Select a Work Practice Standard for Fugitive Pushing Emissions?

We proposed an opacity standard for fugitive pushing emissions as one potential option for controlling sources in the category. Because we were uncertain about the feasibility of an opacity standard for this emission point, we also proposed a work practice standard. We refer to the opacity standard as Option 1 and the work practice standard as Option 2. Both options would require observing four consecutive pushes per day and determining the average opacity of each push. The opacity limits proposed were 20 percent for short batteries and 25 percent for tall batteries based on the average of four pushes. We proposed a work practice standard that would be triggered if the average opacity of any single push exceeded 30 percent for short batteries and 35 percent for tall batteries.

*Comment:* Four commenters stated a preference for a work practice standard. Two commenters said that EPA has not and cannot adequately subcategorize batteries to account for the range in performance achievable by batteries implementing a state-of-the-art O&M program for the minimization of green pushes. The commenters stated there are not enough data to set standards for each subcategory reflecting the performance of the top sources over time and under the worst foreseeable conditions. Therefore, the opacity standard (Option 1) must be rejected.

One commenter prefers an opacity standard over a work practice standard because he believes a work practice standard could cause several problems: (1) It would not allow them to effectively manage their long-term wall and end flue replacement program; (2) the constant change from taking ovens out of service and putting them back into service would result in damage to the battery; and (3) many of the actions required by the work practice standard would disrupt the heating system, damage refractory, and increase emissions in other areas of the battery.

Three commenters urged EPA to combine the opacity standard with the work practice standard. One commenter noted that the opacity standard does not require that an oven be repaired, and the work practice standard may not be sufficient to keep a problem oven from continuing to operate. Two commenters prefer a combination because it would more closely approach their existing State standards. Another commenter

prefers the opacity standard but would support combining it with the work practice standard if it improved compliance.

*Response:* The insight provided by several commenters and further consideration of the two options we proposed lead us to conclude that a work practice standard that requires owners or operators to take appropriate corrective action and to confirm that they have successfully addressed problem ovens is the most effective approach to control fugitive pushing emissions. A work practice standard is appropriate because pushing emissions are fugitive in nature and are not emitted through a conveyance designed to capture and control HAP. Moreover, there is no practicable measurement methodology to determine the mass emission rate of HAP in these fugitive emissions. Section 112(h) of the CAA explicitly permits a work practice standard in lieu of an emission standard when emissions cannot be emitted through a conveyance.

We concluded an opacity limit as proposed would not be appropriate because coke oven batteries cannot entirely avoid green pushes. While facilities can significantly reduce the frequency of green pushes by carefully monitoring emissions and responding quickly to diagnose and repair problem ovens, they cannot eliminate them altogether. (For example, a flue may become plugged unexpectedly during coking.) Any steps that we might take to allow for the periodic exceedance of an emission limit (such as averaging across several pushes) would undermine the purpose of the standard by allowing malfunctioning ovens to continue operating without diagnosis or repair. Therefore, the most meaningful approach is to establish a work practice standard that requires coke oven facilities to identify and successfully remedy problems that result in increased emissions. Accordingly, considering the nature of the pushing operation, it is appropriate for EPA to establish a work practice standard that uses opacity observations to identify problem ovens (those which produce green pushes) and requires corrective action to diagnose and correct the problem.

There was a fundamental flaw in the opacity standard as proposed in that it would not ensure that an oven producing green pushes is repaired. If the four-push average exceeds the opacity standard, one or more of the ovens may have serious problems that require immediate attention to prevent subsequent green pushes. However, these problem ovens would not have to

be observed again for 90 days, and during that 90-day period, many green pushes could occur.

Additionally, an opacity standard based on the average of four pushes does not reliably indicate when a green push has or has not occurred. We analyzed data from two batteries that had frequent green pushes to compare the effectiveness of the opacity standard and work practice standard in identifying green pushes. We found cases where the four-push average had one oven with a green push (an opacity of more than 30 percent), but the proposed opacity standard was not exceeded because the other pushes had low opacity. We also found cases where the 20 percent opacity standard was marginally exceeded, but none of the pushes were green (*i.e.*, all four pushes were less than 30 percent).

In contrast, the work practice standard is triggered by opacity observations of individual ovens. When a green push occurs, the problem oven is identified. This oven is then placed on a remedial track that requires appropriate repairs in a reasonable period of time. Consequently, the work practice standard will not allow green pushes to occur unabated.

Several commenters urged us to combine the performance standard (an opacity limit) with the work practice standard. While we are not adopting a specific performance standard in the form of a hard and fast opacity limit, and we do not believe that such a standard would provide a feasible mechanism for identifying and remediating individual problem ovens, we do recognize the benefits of having a mechanism to prevent ongoing failure to repair problem ovens.

Therefore, we have revised the work practice standard to ensure that ovens are properly repaired. As proposed, the work practice standard could have allowed individual problem ovens to continue to operate, while cycling through corrective actions without ever being properly repaired. Consequently, we revised the work practice standard to require an owner or operator to report a deviation after two consecutive unsuccessful attempts at corrective action and/or increased coking time and after two consecutive unsuccessful attempts to decrease coking time on the same oven. In addition, subsequent consecutive failures to repair or remediate the same oven must be reported as deviations. There is adequate time provided to correct any problems during the two attempts—20 days or more. An owner or operator may also remove an oven from service for as long as necessary to conduct repairs.