



## Department of Energy

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Mr. James A. Saric, Remedial Project Manager  
U.S. Environmental Protection Agency  
Region V, SRF-5J  
77 West Jackson Boulevard  
Chicago, Illinois 60604-3590

DOE-0393-00

Mr. Tom Schneider, Project Manager  
Ohio Environmental Protection Agency  
401 East 5th Street  
Dayton, Ohio 45402-2911

Dear Mr. Saric and Mr. Schneider:

### **PROPOSED DUST CONTROL BEST AVAILABLE TECHNOLOGY FOR THE OFF-ROAD CONSTRUCTION VEHICLES**

During the Calendar Years (CY) 1998 and 1999, dual-wheeled tandem axle trucks and articulating trucks used in the transport of impacted materials were required to be equipped with automatic tarps. These tarps were required to be in place during periods of equipment movement, whether empty or full. However, the use of additional articulating trucks without tarps for the upcoming CY2000 construction season is requested.

These commercially leased articulating trucks do not have automatic tarping capability readily available. To minimize fugitive dust emissions during hauling, it is proposed that spraying water on the loaded impacted material be implemented at the Southern Waste Units (SWU) Equipment Wheel Wash, and other areas to be excavated outside of SWU, prior to entering the Impacted Material Haul Road. This dust control method, whether used singularly or in combination with other dust control methods (e.g., use of surfactants, crusting agents, reducing hauling speed, reducing hauled quantities within the truck, covering truck load bed), has been determined in Section 5.1.2.2, "Fugitive Emissions," of the Site-wide Excavation Plan as the Best Available Technology (BAT) for dust control at the Fernald Environmental Management Project (FEMP). These articulated trucks will be allowed to haul from a posted contamination/high area via the Impacted Material Haul Road.

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The need for increased use of articulating trucks for the upcoming construction season is due to various reasons. First, in order to have On-Site Disposal Facility (OSDF) Cell 1 ready to cap by the CY2001 construction season, the remaining grid space in Cell 1 must be utilized beginning in March 2000, when the OSDF re-opens and throughout the construction season. Steep haul road slopes in reaching these grids will be difficult for dual-wheeled tandem axle trucks when the roads are wet resulting from weather conditions, or from water application for fugitive dust control. Due to wider tires, articulating trucks have lower ground pressure and their chance of becoming stuck is reduced when compared to the dual-wheeled tandem axle trucks. Once on top of Cell 1, where space may be limited, the articulating truck has superior maneuverability to safely execute off-loading of the impacted material.

Second, the same explanation given above applies during excavation of the South Field (SF) and the Active Flyash Pile (AFP) in the SWU as the excavations become steeper as the contractor approaches the final design grades to obtain the final remediation levels. It must also be recognized that room for maneuverability decreases in both the impacted material areas within the SF and AFP as previously excavated areas become ready for precertification and certification.

Finally, applying to both the OSDF and the SWU, it is generally more labor intensive to successfully execute wheel wash activities on dual-wheeled tandem axle trucks. This is mainly due to moist impacted material or mud becoming wedged between the rear dual wheels. Articulating trucks do not have dual wheels. It is believed, therefore, that a potential source of impacted material deposits on the Impacted Material Haul Road resulting in fugitive dust emissions will be reduced.

At a minimum, the following list of requirements will be incorporated in order to allow the use of articulating trucks without tarps:

- No visible dust emissions
- Materials must be wetted with water or a crusting agent/surfactant prior to entering the Impacted Material Haul Road
- No visible materials on the outside of the equipment
- Posted speed limit to be maintained

Note the FEMP site-specific fugitive dust limits will not be changed with this proposed use of additional articulating trucks without tarps. The excavation contractor will continue to utilize Method 22, "Visual Determination of Fugitive Emissions from Materials Sources and Smoke Emission from Flares," to verify compliance with site-specific limits. To ensure that the above requirements are met for these additional articulating trucks, a stationary spray bar will first be constructed at the SWU Equipment Wheel Wash in which the

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articulating trucks drive under during wheel wash operations. If necessary, the use of a solution of water and crusting agent or surfactant will replace the use of water. Other available means to minimize fugitive dust will continuously be evaluated and implemented, if necessary, to ensure that all requirements are met. Should the use of articulating trucks without the use of tarps prove successful, the FEMP will explore expanding the approach during OSDF Phase III/Area 3A and Area 4A excavation.

If you have any questions or need further information, please contact Robert Janke at (513) 648-3124.

Sincerely,



Johnny W. Reising  
Fernald Remediation Action  
Project Manager

cc:

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