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## Southwest Clean Air Agency

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January 29,2002

Dallas Safriet  
Environmental Protection Agency  
Research Triangle Park, NC 27711

Re: Comments on MRI's Final Test Report on Emission Factors for Barges and Marine Vessels

Dear Mr. Safriet:

The Southwest Clean Air Agency (SWCAA) would like to submit comments on the November 2,2001 final test report for Emission Factors for Barges and Marine Vessels submitted by Midwest Research Institute under contract with the National Grain and Feed Association.

SWCAA has three grain terminal elevators in our jurisdiction located along the Columbia River in southwestern Washington. SWCAA has reviewed the Emission Factors for Barges and Marine Vessels final test report in an effort to understand how the study and the resulting emissions factors could apply to these facilities. In doing so, SWCAA has concluded that more information about the facility operating parameters and study testing methodologies should be included in the final report in order to be able to attempt to use this new data for sources within our jurisdiction.

The comments that SWCAA would like to submit mainly pertain to the marine vessel, or ship loading portion of the study. SWCAA requests the report be clarified in the following areas:

1) Please explain whether deadboxes were used on all ship loading spouts,

The test report states that the control devices were deactivated during test periods, but does not elaborate on whether or not this deactivation only pertained to the air drawn to baghouses. SWCAA facilities are required to use deadboxes at the end of the loading spouts which significantly reduce particulate emissions and can be considered control devices even without any added aspiration.

2) Clarify whether any mineral oil was added to the grain used during the tests.

In the same topic of operation parameter documentation, there was no mention of whether or not any oiling was performed on the grain used in the study. This is a common particulate mater reduction practice for grain facilities including the

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three grain terminals in SWCAA's jurisdiction, however there was no mention of this factor in the report. There are sometimes two to three points along the grain handling process where mineral oil may be added to the grain. Also, the terminals in our jurisdiction generally do not have information on whether or not the grain has been oiled prior to reaching their facility. Is this the same for those facilities tested? Any emission factor development should consider this element.

3) Explain whether grain was cleaned in any way prior to its use in this study.

Grain cleaning after or prior to storage is a standard procedure for facilities on the West Coast whose exported commodities must meet certain dockage standards. There is no discussion in regards to the sampling/weighing/cleaning process that might have been employed to grain used in this study. Again, there are multiple opportunities for grain to be cleaned prior to export. Any emission factor development should consider this element.

4) Describe the distance between the spout and the piles offloaded grain during the ship loading tests.

The barge loading test description mentions the heights of the loading spout above the grain pile in the vessel during different loading tests, however there is no corresponding information for the ship loading test documentation. Although the report does show emission calculations at different points in the ship loading cycles, there is no discussion of how far the grain fell once the grain left the end of the loading spout. SWCAA has found that particulate emissions are less if the distance from the end of the spout to the loaded grain is kept to a minimum. It has also been SWCAA's experience that there can be some variability in the distance that different ship loading crews will use. In addition there is considerable variability in emissions between allowing grain to load in a fashion which causes steep, tall piles of grain in a vessel hold versus the loading spout operator continuously moving the spout to prevent pile formation. Again, this is a critical element in knowing how to develop and/or apply any emission factor.

On a more general note, it appears that the study evaluated PM10 and PM2.5 with no discussion of TSP. TSP is still a regulated pollutant in Washington State. Should it be assumed that PM10 was 25 percent of the total filterable PM during this study as suggested in AP-42 Table 9.9-1 Particulate Emission Factors for Grain Elevators, or is there other guidance available?

In addition, there was no discussion of opacity in the report. Opacity is the major surrogate parameter that is helpful in the field to assess compliance with emission limits. An opacity correlation is also valuable for comparing tested emission data from one facility to the emission rates of another facility. Therefore, for the test data to be most useful, it is necessary to have opacity information correlated with emission test data. Please elaborate in the test report any observations of opacity.

In summary, SWCAA requests clarification on the above mentioned topics and recommends that any such clarification be included in the final report so that other persons wishing to use information from this study will better understand how to apply it.

If you have any questions or comments, please give me a call at (360) 574-3058 extension 30.

Sincerely,

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Southwest Clean Air Agency

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