Re: RR 091-12809  
Request to Review Plasma Arc Emission Factors  
Of October 6, 2000

Dear Sudhir Mantri:

On October 4, 2000, a letter was submitted requesting the review of information for the emission factors to be used for plasma arc cutting. The company noted two different studies which produced alternative values for emission factors. Using these new emission factors, the company’s operations are at exemption levels of emissions and not at registration levels.

The Office of Air Management (OAM) has examined this information. The study of Emission of Fume, Nitrogen Oxides and Noise in Plasma Cutting of Stainless and Mild Steel from the Swedish Institute of Production Engineering Research has been downloaded from the EPA CHIEF site. Using the factors here, gives one an emission rate of 1.97 tons of particulate matter per year.

Additionally, a study on Fume emission testing for plasma arc cutting from Hypertherm is examined. This study investigated the cutting of mild steel, stainless steel, and aluminum. Using the factors based upon this study, gives one an emission rate of 1.36 tons of particulate matter per year.

OAM accepts the emission factor based upon the Swedish study. Based upon these calculations, the operations of PM Fabricating are determined to be exempt. Therefore, the company will not need to renew their registration since they are now an exempt source.

If you have any questions regarding these issues, please contact Donald Poole at 317-232-8327, or at 1-800-451-6027, Ext. 2-8327.

Sincerely,

Paul Dubenetzky, Chief  
Permits Branch  
Office of Air Management

drp  
c: Rick Massoels