

MACT COMPLIANCE STRATEGIES

The 1990 Clean Air Act Amendments mandated the development of Maximum Achievable Control Technology, or MACT regulations. Because these are technology based regulations, they can have significant impact on existing facilities. Most MACT regulations apply only to plants classified as major sources under section 112 of the Clean Air Act, however, several also apply to area sources. LEAF has worked with clients to help them achieve MACT compliance in cost-effective ways that can have business advantages. Often, a plant can make process or other modifications to reach compliance easily or, in some cases, to reduce emissions below the applicability thresholds. Following are several representative project summaries where we have worked with clients on MACT compliance:

CLIENT: Lumber Mill

PROJECT: Major Source Boiler MACT Compliance

This facility consists of a sawmill, woodworking operations and steam heated kilns, with steam provided by wood-fired boilers. The lumber mill was already subject to the area source boiler MACT, however future production increases made it likely the facility would become subject to the Major Source Boiler MACT. LEAF worked with the facility to determine the best compliance option available based on the current emission sources and control devices at the plant. It was determined to comply with the Major Source MACT, the facility would need to install an expensive particulate controls (i.e. baghouse) on the boiler. LEAF petitioned the EPA for a determination if boiler exhaust gas could re-routed to the kilns and to effectively change the source classification of boilers from steam generating units to source heaters. The EPA concurred the facility could apply the exhaust gas to the kilns, and by so doing, avert the Major Source Boiler MACT regulation. The operational change would cause the facility to become subject to only the Plywood MACT and not the Major Source MACT. The client would not only save capital and ongoing operational cost for a new baghouse, they would also see efficiency gains due to the flue gas heat being used for process heat.

CLIENT: Wood Furniture Manufacturer

PROJECT: Wood Furniture MACT Compliance Strategy

This client has several manufacturing plants located in the same state. LEAF worked with the client to have two facilities reclassified as small sources. One facility is a Title V source and is subject to the wood furniture MACT regulation. LEAF worked with the client to manage its 1996 base-year emissions and to secure an additional year for its compliance schedule by keeping 1996 HAP emissions below 50 tons. LEAF prepared a detailed evaluation of the MACT regulation, and provided a coordinated compliance approach that allows for maximum flexibility, economic feasibility, and sufficient time to evaluate new compliance products. In addition, the company has obtained additional employee-related benefits by changing certain operations that resulted in reduced product usage and improved working conditions.

CLIENT: Industrial Equipment Manufacturer
PROJECT: Halogenated Solvent MACT

This client had several degreasers subject to the halogenated solvent MACT. LEAF evaluated the plant operations, and made recommendations for highly cost effective changes that reduced methylene chloride usage substantially, in order to meet the emission standard without equipment modification. We also coordinated the evaluation with recent OSHA regulations that significantly reduce employee exposure to methylene chloride, and recommended a coordinated response so that the plant could address both regulations. Ultimately, the plant was able to reclassify to a small source due to elimination of methylene chloride.

CLIENT: Industrial Equipment Manufacturer
PROJECT: Chromium Electroplating MACT

The facility has a chromium electroplating operation that made it subject to the chromium electroplating MACT. LEAF engineers evaluated the electroplating operation and MACT requirements, and recommended a compliance approach using surface tension monitoring. This proved to be very cost effective, and the plant was able to eliminate an existing scrubber as well.