

To: Bob Kuehn, Tulane Environmental Law Clinic November 11, 1996

From: Gary Miller

Ref: Shintech and MACT.

Dear Bob,

Here's the story on Shintech and MACT.

MACT Standards.

The EPA is putting out MACT standards as required by the 1990 Clean Air Act (CAA) Amendments. These standards are going into 40 CFR 63 as NESHAP's, which stands for National Emissions Standards for Hazardous Air Pollutants. The MACT standards are put into Subparts in 40 CFR 63, with each Subpart corresponding to an emissions category. The categories are determined by facility type, with the most important categories in Louisiana being "Petroleum Refineries" and "SOCMI", which stands for Synthetic Organic Chemicals Manufacturing Industry and is the category for chemical plants. The Petroleum Refineries MACT standards are in 40 CFR 63 Subpart CC. The SOCMI MACT is in Subparts F, G, H and I; which are collectively known as the HON (Hazardous Organic Neshaps). Subpart G is the most important Subpart in the HON as it contains the MACT standards for process vents, storage vessels, transfer operations, and wastewater. All of the MACT standards in 40 CFR 63 will be put into state law by IBR (Inclusion By Reference), and will go into LAC 33:III Chapter 51.

Another important MACT category is for resins and polymers. These are in 40 CFR Subpart V and will consist of Groups 1 through 4. Resins and polymers Groups 1 and 4 are finished, but Groups 2 and 3 aren't. This includes the MACT for polyvinyl chloride (PVC) manufacturing plants, which won't be finished until the year 2000.

Shintech.

The Shintech Title V permit applications went to public notice the week of November 9, 1996. The public hearing is scheduled for December 9, 1996. Shintech submitted three separate permit applications, one for the vinyl chloride monomer (VCM) plant, one for the PVC plant and one for the Chlor-Alkali plant. The Chlor-Alkali plant permit application didn't have any significant air emissions and doesn't need to be seriously studied.

The VCM plant falls under the HON and must adhere to those MACT standards. The most serious air emissions in the VCM plant come from the two thermal oxidizers (emissions sources M-4 and M-5) and analyzer vents (M-13). The HON requires that the oxidizers must have scrubbers. The permit application is incomplete and contradictory in describing these oxidizers and it is not clear that the required scrubbers are included. M-5 is specifically described as "thermal oxidizers with no scrubber", which won't meet the requirements of the HON. The HON also requires that TRE (Total Resource Effectiveness) calculations be made for sources M-4 and M-5 to determine if an adequate degree of control has been met. This was not done for M-4, M-5 or M-13.

The information for the "analyzer vents", source M-13, is also contradictory and incomplete. Chapter 4 of the application states that M-13 "must go to waste gas disposal for compliance", which is probably correct. Appendix F of the same application states that M-13 is "exempt from control due to LAC 33:III 5121" and that these vents only need "VOC < 100 combined wt. in 24 hours", where VOC stands for volatile organic compounds and wt. is weight. The HON requires that a TRE calculation be made to determine if these vents are Group 1 or Group 2 vents. This was not done. If the vents are Group 1 vents they will have to be controlled by an oxidizer with scrubber.

The PVC plant doesn't yet have federal MACT standards in place. However, LAC 33:III Chapter 51, Section 5111, titled "Permit Requirements, Application, and Review", requires that this permit must comply with the definition of MACT. This definition, as stated in LAC 33:III 5103 and in the CAA, requires that Shintech have control technology commensurate with the best controlled PVC plant in the nation in 1991. Shintech is in a Catch 22 that requires them to adhere to MACT, even though MACT standards for PVC manufacturing aren't finalized. The best sources at DEQ state that this means that the PVC plant must meet the control standards of the HON until the PVC standards are finished. Shintech's permit application made no effort to demonstrate that they will meet MACT.

The Shintech PVC plant has two major air pollution sources. These are called P-1 and P-2 by Shintech in the PVC plant permit application. The application is incorrect and incomplete. P-1 and P-2 are described as "scrubber", when they are probably vents from a dryer that passes through a scrubber. The scrubber is for removal of particulates from the dryer vent. Table 4.2 in the application, titled "Compliance Method Provision" states "Emissions of vinyl chloride will be controlled by stripping to < 150 ppm prior to this source. This is considered MACT". This is incorrect, as the HON requires that this stream go to an oxidizer with scrubber unless the TRE calculation is greater than 1. There are no TRE calculations for P-1 or P-2 in the application, as required by the HON. These calculations would probably show that P-1 and P-2 have a TRE less than 1 making them Group 1 vents and requiring the vents be sent to an oxidizer with a scrubber.

Please call (504-344-0779) or e-mail (gpmiller@worldnet.att.net) if you have any questions or comments.

Sincerely,

Gary Miller