MEMORANDUM

Date: April 23, 1997

Subject: Meeting Minutes - Preliminary MACT Floor for Formulation Processes

From: Parag Birla

To: Miscellaneous Organic NESHAP Project File

I. Purpose

The purpose of this meeting was to brief and solicit comments from the project regulatory team and interested stakeholders on the preliminary MACT floor for formulation processes covered under the Miscellaneous Organic NESHAP (MON).

II. Location and Date

EPA - Mutual Building
Durham, North Carolina
November 13, 1996

III. Attendees

Gerald Brown, Creg Browne, Cynthia Dillon, Robert Matejka & Sam Winkler, Akzo Nobel Coatings;
Bob Nelson, National Paint & Coatings Association;
David Mazzocco, PPG Industries;
Nick Maoloni, Sherwin-Williams;
Randy McDonald, EPA/OAQPS/ESD; and
Parag Birla, Alpha-Gamma.

The above-mentioned individuals were present in person at the meeting. In addition, the following individuals participated in the meeting via telephone:

Mark Collatz, Adhesives and Sealants Council (ASC);
Carolyn Leon, Ashland Chemicals;
Lisa Jennings, California Air Resources Board (CARB);
Mike Dixon, Dixon Environmental;

John Dege & Greg Allen, DuPont;
John Ting, Illinois EPA;
Kathryn Smith, Institute of Makers of Explosives (IME);
Krista Russell, Lilly Industries;
Bob Nelson, National Paints and Coatings Association (NPCA);
Denise Horton, South Carolina Department of Health & Environment Conservation (SCDHEC);
Bill Moody & Eric Osborn, Texas Natural Resources Conservation Commission (TNRCC); and
David McCready, Union Carbide.

IV. Discussion

Topics covered during the meeting were primarily based on the briefing materials distributed to all of the participants. A copy of the briefing material is attached to this memorandum. The following paragraphs describe comments made during the meeting.

Mark Collatz wanted to know the difference between batch and formulation processes. Randy McDonald pointed out that specific definitions need to be outlined but the current understanding is that formulation processes occur in a mixing, non-reactive environment as opposed to batch processes which take place in a reactive environment. One of the meeting participants inquired whether formulation operations at distribution terminals would be covered under the MON rule. Randy McDonald replied that processes outside the generic Standard Industrial Classification (SIC) code of “28" will not be covered by the MON rule. He also stated that the MON rule will incorporate process exemptions based on throughput, vapor pressure, equipment size and product contents including amount of water in percent by weight.

John Dege pointed out that the preliminary MACT memorandum dated October 7, 1996, included only two SIC codes (2851 & 2893) for formulation processes. However, the briefing package included three SIC codes (2851, 2891, & 2893) for formulation processes. Parag Birla mentioned that initially there was some ambivalence regarding SIC 2893, which covers adhesive and sealant manufacturing processes, because these processes involve batch reactions as well as some formulation operations. Therefore, it was unclear whether these processes should be classified as batch processes or as formulation processes. However, for the purpose of the meeting, adhesive and sealant manufacturing processes were considered under the formulation processes subclassification.

Mike Dixon was concerned that basing the preliminary MACT floor for mixing tanks on existing regulations in three States i.e., Illinois, Michigan, and Missouri, may not be defensible. He suggested that a more detailed study needs to be conducted in order to determine which specific sources are regulated by State regulations. He also stated that State regulations may have been assumed to be applicable to a broad range of processes when in fact, the regulations may apply to only some specific sources. Greg Allen indicated that the three States with regulations may not represent the MACT floor. Randy McDonald agreed that more work needs to be performed before the MACT floor for mixing tanks is finalized.

Bob Nelson expressed interest in obtaining a list of all paint, ink, and adhesive manufacturing facilities included in the 1993 TRIS database. Randy McDonald agreed to provide the list. Randy McDonald also mentioned that a detailed MACT floor analysis at the facility level will be performed using the list generated from the 1993 TRIS database.

John Dege noted that the MON database does not include mixing tanks as an emission type. He also pointed out some data inconsistencies and said that the MACT floor should be determined not on a facility-wide basis but on an individual equipment basis. John Dege wanted to know how the MON database was used to arrive at the preliminary MACT floor for formulation processes. Parag Birla replied that the MON database has no data pertaining to mixing tanks. Parag Birla added that for mixing tanks, the floor was based on State regulations but for other emission types such as storage tanks, equipment leaks, and wastewater, the floors were based on all data included in the MON database.

Mike Dixon floated the idea that a separate database be created for formulation processes by sending out questionnaires. He said that formulation processes should not be grouped with continuous or batch processes for the purpose of floor determination. Greg Allen seconded the idea of a questionnaire for formulation processes. Randy McDonald responded by saying that if the industry representatives are interested in a questionnaire, EPA is willing to consider that option. Creg Browne, David Mazzocco and another participant did not like the idea of sending questionnaires to individual facilities. Instead, they felt that MACT floor issues can be resolved through constructive negotiations. David Mazzocco said that issues regarding proposed control requirements for mixing tanks such as covers and submerged filling can be dealt with by adding exemption criteria based on vapor pressure and better definitions. Creg Browne seconded David Mazzocco's opinions.

Greg Allen voiced his concern about submerged filling being a standard for mixing tanks. He said that submerged filling is not technically possible because of

contamination issues. Moreover, he felt that there is no documented evidence that submerged filling reduces emissions. John Dege supported Greg Allen's claims and said that submerged filling is not possible from a process standpoint.

Randy McDonald wrapped up discussions on mixing tanks by saying that EPA will take a closer look at issues such as covers, submerged filling and minimization of emissions during tank cleaning.

David Mazzocco stated that formulation processes should not be lumped in with batch and continuous processes in determining MACT floors for storage tanks, equipment leaks and wastewater. David Mazzocco added that requirements similar to the HON rule are not applicable to the formulation industry. Creg Browne also indicated that formulation processes are different from batch and continuous chemical manufacturing processes, hence, should be grouped separately.

John Dege pointed out some data inconsistencies in the MON database with regard to storage tanks. Randy McDonald replied that the idea behind circulating the database to the industry was to solicit comments. He said that the MON database will be revised based on comments received from the industry. Randy McDonald added that the MACT floor results are preliminary and may change based on additional data being requested from batch plants. Representatives from DuPont, ICI, PPG and Sherwin-Williams mentioned that none of their paint manufacturing plants has an internal floating roof tank - the proposed preliminary MACT for storage tanks under the MON rule.

One of the meeting participants wanted clarification regarding the applicability of HON equipment leak provisions based on 300 hr/yr HAP service requirement. He wanted to know if the lines need to be under pressure to be considered in service. Randy McDonald replied that this issue will be considered in arriving at equipment leak standards. Randy McDonald acknowledged that there is no floor for equipment leaks, therefore, cost-effective standards above the floor need to be considered. Randy McDonald also mentioned that he might circulate cost memoranda from the Pharmaceuticals NESHAP.

Mike Dixon said that emissions attributable to equipment leaks are negligible, therefore, equipment leaks should not be a matter of concern from a regulatory standpoint. He added that open top tanks are the most significant sources of emissions from formulation processes. David Mazzocco said that by proposing LDAR-type

equipment leak standards, EPA would be penalizing the formulation industry for hard-piping its processes. An ICI representative agreed with David Mazzocco.

According to Mike Dixon, wastewater is not an issue with formulation processes. Creg Browne added that water is generated only during tank cleaning and the primary concern is the presence of solids or resins in wastewater which are removed by flocculation. David Mazzocco pointed out that water is not used for tank cleaning in solvent-based products due to the risk of contamination. He also mentioned that tanks involved in the manufacture of solvent-based products are usually cleaned using solvents contained in the final product.

Most of the industry representatives expressed interest in having flexibility in solvent minimization options. They also said that compliance monitoring would be difficult if emission numbers were used as a measure of compliance. However, compliance monitoring based on physical features would be achievable. Creg Browne also indicated that standards based on product processes would be difficult to comply with due to the non-dedicated nature of formulation process equipment. According to Creg Browne, standards regulating process equipment instead of product processes would be acceptable.

Nick Maoloni proposed the idea of letting industry representatives draft a presumptive MACT memorandum for formulation processes. Creg Browne, David Mazzocco and Greg Allen supported Nick Maoloni's proposal. Randy McDonald replied that EPA is willing to look at any suggestions put forth by the industry.