MTBE BLUE RIBBON PANEL
Meeting Minutes
January 22, 1999
Crystal City Marriott
Arlington, VA

OPENING REMARKS

The first meeting of the Blue Ribbon Panel to review the use of Methyl Tertiary Butyl Ether (MTBE) and oxygenates in gasoline was held on January 22, 1999, at the Crystal City Marriott in Arlington, Virginia. Karen Smith, EPA's designated federal official for the MTBE Blue Ribbon Panel, began the meeting by welcoming the Panel members and attendees. There were approximately one hundred public citizens in attendance at the meeting. Ms. Smith then introduced Bob Perciasepe, Assistant Administrator of EPA's Office of Air and Radiation. Mr. Perciasepe briefly explained that the Panel was formed to address the health and water quality concerns that have come with the reformulated gasoline (RFG) program, which has been extremely successful in reducing ozone and toxics. Because EPA must maintain both clean air and clean water, there is a difficult mix of issues to reconcile. At the request of EPA Administrator Carol Browner, EPA hopes to understand and identify the issues stemming from the use of MTBE and oxygenates in gasoline to present a recommendation to the Administrator. The goal of the Panel is to clarify and identify issues, convey the facts, and develop a sense of what the facts tell us we should or should not do regarding the use of MTBE and oxygenates in gasoline. These issues are being addressed now because there is: (1) increasing discovery of contamination in water resources; (2) conflicting science and reports about the health effects of MTBE; and (3) states are very involved in taking actions on MTBE.

Mr. Perciasepe reiterated that there is no easy solution to this conflict. In order to sort through the information, EPA needs a reasoned assessment of the problem based on facts. It is a big challenge to manage the two risks when there are tremendous public health benefits to air quality, and emerging public health concerns with water quality.

Mr. Chuck Fox, EPA Assistant Administrator of Water, then explained that Administrator Browner has a keen interest in protecting the air and water of this nation, and she is looking for the Panel to provide some recommendations and ideas. Mr. Fox stated that there are data showing that MTBE is showing up in surface, ground and drinking water supplies. There is some evidence that MTBE is coming from underground storage tanks, two-stroke marine engines, and run-off. Clearly, MTBE poses aesthetic issues (i.e., smell) and people will notice MTBE at low levels.

The Panel Chair, Daniel Greenbaum, Health Effects Institute (HEI) President, was then introduced and proceeded to cover the charge to the Panel, operating principles of the meetings,

the proposed meetings, dates, and the meeting process. The six meetings of the Panel will include various presentations to help educate the Panel on existing work already completed. The Panel's task will be to provide independent advice and council to the Administrator on the use of oxygenates in gasoline. Further, the Panel will also be asked to look at proven air quality benefits from the fuel, the role of fuel components, contamination of water, challenges of remediation, health effects of oxygenates, and what has already been learned as a baseline. The Panel will need to address possible changes to the additive, which could significantly effect the nation's fuel supply. Mr. Greenbaum stated that the following principles are very important to the Panel's effort:

1) Open process (Panel discussions, presentations, public comments)
2) Fact finding effort, both far reaching and balanced
3) Panel proceed with no predetermined positions about the solution
4) Provide translation to terms (acronyms) because of wide diversity within the Panel.

Six meetings will take place in different locations (including Boston and California) to reach out and hear what people are finding and bring that information into the deliberations. The goal is to glean from key findings and integrate across multiple disciplines. And, as the Panel moves forward, to identify major policy options available. The Panel will produce a concise report for policy makers to understand key issues and make decisions using all expertise available. Mr. Greenbaum concluded with the issues of: (1) additional information needs; (2) issues we should be addressing that are not included; and (3) how to make the time table work. Following Mr. Greenbaum's introduction, the Panel members each provided a brief introduction, which included their affiliation and experiences in dealing with MTBE and oxygenates.

PANEL INTRODUCTIONS

Mark Beuhler, Metropolitan Water District of Southern California, stated that the water utilities are pleased with the Panel. The utilities also feel that aesthetics are as important as health related issues because MTBE can be detected by smell before it becomes a health concern. He mentioned concern from the water utilities that contamination from surface and ground water is treated much differently. Mr. Beuhler stated that underground storage tanks are not the only cause of contamination.

Robert Campbell, Sunoco, Inc., explained that Sunoco has a large stake in MTBE as the largest manufacturer and supplier of RFG in the Northeastern United States. MTBE is a large part of Sunoco's refinery supply. Sunoco is a large marketer of a product that contains MTBE, and the company has several thousand service stations, which have all completed the tank replacement program. Sunoco will not supply gasoline to a station that has not yet replaced its tanks. Mr. Campbell has concerns about MTBE, and about individual states creating their own fuel programs. Mr. Campbell expressed the need for upcoming fuel related issues (Phase II RFG in the year 2000, and potential sulfur reductions) should be integrated into the MTBE and

oxygenated fuel discussions.

Roger Conway, U.S. Department of Agriculture, expressed interest in how the oxygenated fuel market may affect future ethanol demand and helping where possible to help contribute to the Panel to facilitate recommendations.

Cynthia Dougherty, EPA Office of Water, expressed interest from the water program perspective to understand what is happening with MTBE nationally, and what the Office of Water can do to prevent MTBE from getting into water supplies.

Dr. Patricia Ellis, Delaware Department of Natural Resources (DNR), is a hydrologist, and manages water clean ups and investigations. Many states now develop risk-based corrective action programs to decide how much MTBE can safely be left in the ground, and how much can be cleaned up. The lack of MTBE data has caused problems with determining safety levels. Many states have state fund programs that finance clean ups. The states need guidance on clean up, and need more human health studies to help accurately explain the situation to local citizens. Ms. Ellis stated that tanks will leak regardless of whether they are in compliance or not.

Bill Farland, EPA Office of Research and Development (ORD), explained the mission of the environmental assessment group within ORD to do research related to human health and ecological risks, and assessments to demonstrate innovative approaches and communicate risks to the public. Mr. Farland hopes to provide translation on some of these difficult issues related to human health risk assessment in the face of uncertainty with an incomplete database.

Jason Grumet, Northeast States for Coordinated Air Use Management (NESCAUM), explained that NESCAUM represents the eight Northeast state air programs by writing technical studies and helping states when they want policy made or have a problem. States are enthusiastic about the benefits of RFG, and simultaneously share concerns about MTBE. New Hampshire's Governor has requested that the information from the Panel be shared with his office. Seven out of eight NESCAUM states use RFG (except Vermont). NESCAUM works toward assessing relative risk and communicating it to the public. Mr. Grumet informed the Panel that RFG was the number one election issue in Maine's gubernatorial election last year – the public is aware of this issue.

Anne Happel, Lawrence Livermore National Laboratory, has been working with a team of scientists studying MTBE and ground water focused on point source releases, such as leaking underground storage tanks (LUST). Their role is to look at environmental data and perform quantitative analysis of those data. Their work focuses on looking at occurrence, frequency, and detection of MTBE in ground water in California and the behavior of MTBE plumes as compared to benzene.

Dr. Carol Henry, American Petroleum Institute, currently represents the oil and gas industry. The companies Dr. Henry represents support cleaner burning fuel for clean air, but are extremely concerned about contamination in water and have devoted significant resources and efforts

toward remediation technologies and are committed to cleaning up water supplies. API policy is to be oxygenate neutral.

Mike Scheible, California Air Resources Board (CARB), hopes to bring expertise on what has happened in California, and share the benefits of a cleaner burning gasoline program. California is currently dealing with these issues, and CARB hopes to help ensure that the recommendations are factually based so that the public has confidence in the findings. CARB will have a prejudice toward the clean air benefits of RFG, and the need for air quality to be preserved regardless of the course of action taken by the Panel.

Barry McNutt, Department of Energy (DOE), has responsibilities related to analytical work regarding gasoline quality, supply, and cost issues. Mr. McNutt hopes that DOE's analytical information will help inform the Panel. DOE's goal is to make sure the Panel understands the gasoline supply, quality, and cost impacts associated with any options considered. Mr. McNutt hopes to support the Panel and provide DOE resources.

Bob Sawyer, University of California at Berkeley, is a professor in mechanical engineering and energy and environmental policy. Mr. Sawyer has a joint interest in technology and policy, and has worked with the research group that contributed to the California MTBE study delivered to the State. Mr. Sawyer was part of the advisory group to the auto oil program, which helped define the nature of RFG.

Todd Sneller, Nebraska Ethanol Board, represents a state agency to advocate the use of ethanol and ethanol based fuels as a displacement for conventional components of gasoline. Mr. Sneller has worked with the Clean Fuels Development Coalition focusing on what role cleaner burning oxygenates can play in the U.S. gasoline pool to satisfy public policy objectives. In addition, Mr. Sneller works with the Governor's Ethanol Coalition, and expressed his interest in ground water issues.

Debbie Starnes, Lyondell Chemical Company, represents a manufacturer and marketer of MTBE. Lyondell has been making and selling MTBE for twenty years, and has experience with the product, and remediating spills. Lyondell believes in the product, and believes it has contributed to cleaner air. But, the company recognizes the concerns about health effects, water contamination, and remediation requirements. Ms. Starnes hopes to provide a fuel that gives the nation mobility, and continues to protect air benefits and clean water.

Anna Virbick, EPA Office of Underground Storage Tanks, hopes to work with the Panel and hopes to identify what needs to be done.

Ron White, American Lung Association (ALA), works for a voluntary public health organization to prevent lung disease and promote lung health. Historically the Association has been a strong supporter of cleaner burning gasoline to achieve clean air. ALA recognizes the issues surrounding cleaner burning gasoline with respect to health effects and water quality issues. ALA hopes to objectively look at air quality and health effect issues, and rely on peer reviewed

science to form a program that balances and preserves air quality benefits from the RFG program, without damage to the environment and public health.

Mary White, Agency for Toxic Substances and Disease Registry (ATSDR), works closely with the U.S. Department of Health and Human Services. Ms. White hopes to serve as a resource to the Panel and learn from the group to convey the information to others at ATSDR continuing to work on this issue.

John Zogorski, U.S. Geological Survey (USGS), hopes to help the Panel understand contamination of ground and surface water in the United States. USGS has two programs that deal with oxygenates. The first is the Toxics Substances Hydrology Program to investigate natural processes (i.e., biodegradation) that clean up contaminated sites after spills occur. The other program, the National Water Quality Assessment Program, attempts to characterize water quality conditions or ambient water resources in contrast to contaminated sites.

Margo Oge, Director, EPA Office of Mobile Sources (OMS), has been with OMS since Federal RFG was introduced into the marketplace and is excited about the environmental benefits that the RFG program is providing, and also concerned about potential impacts the program may have on our water supplies. Ms. Oge will provide technical and policy support to the members of the Panel throughout the deliberations, and looks forward to the Panel recommendations.

EXISTING PROGRAMS

Rob Brenner, Director of EPA's Office of Policy and Analysis Review (OPAR), gave a presentation about the 1970 Clean Air Act (CAA) oxygenate requirements. Mr. Brenner presented legislative history of the winter oxygenate and RFG programs and the expectation for these programs when the CAA was passed. Mr. Brenner explained that fuels were targeted because states were not meeting the deadlines for air quality standards. To address this problem the 1990 Clean Air Act Amendments (CAAA) divided the country into different categories of non attainment depending on severity of air quality problems, and staggered attainment dates to reflect that. The CAAA also required states to show progress. Congress recognized that some states needed national controls to help meet progress goals.

Mobile source emissions contributed to air quality problems both for toxics and ozone pollution. It was recognized that tighter tail pipe standards alone were not going to solve problems, and that fuels also needed to become cleaner. Cities would need to use cleaner fuels and fuels based on renewables for energy security and to provide an economic boost to farmers. The oil industry responded with a set of reduction goals using cleaner gasoline. The compromise was an oxygenate requirement that would still secure the market for ethanol and not displace the use of large amounts of gasoline, and an alternative fuels fleet program that would continue development of other fuels. At the time, MTBE was already used as an octane enhancer. The use of MTBE increased from three percent to eleven percent by volume in RFG. The results of the winter oxygenate and RFG programs appear to be consistent with the goals of the Clean Air Act. States are relying on these programs to meet clean air requirements. The cost of RFG is

about three cents per gallon. The fuel changes have made immediate air quality benefits compared to changes made to engines due to lengthy fleet turn over time. In terms of attainment with the standards, out of thirty-six carbon monoxide (CO) non-attainment areas that initially implemented the winter oxygenate program in 1992, only nine areas remain with air quality above the CO standard. RFG is now used in seventeen states primarily to attain or maintain ozone standard or to meet the interim CAA requirement, and to meet the volatile organic compound (VOC) requirements. Many areas rely on RFG to meet their VOC reduction plan. Mr. Brenner concluded that the states still need to continue programs like RFG, or to find acceptable alternatives to keep local emissions down. There are few tools at the local level that can match the air quality benefits and low implementation costs of the RFG program. However, it is unacceptable that our clean air be at the expense of continued progress in protecting our country's water supply.

There were several comments and questions about the origination of the oxygenate requirements in the CAA, and how the levels were determined for the winter and summer programs. It was noted that when the oxygenate requirement was originally determined, it was done so that states would have the choice of which oxygenate to use. Congress gave much thought and deliberation as to how to set the standards. The underlying basis for the CAA regulations is that Congress could reauthorize the CAA at any time. However, the CAA can also continue indefinitely without reauthorization because Congress will continue to appropriate funds. Margo Oge clarified that the percentages for oxygen, VOCs, and toxics are well established in the Statute. The NOx requirement has been proposed and finalized through the Agency regulatory process. Therefore, the NOx requirement could potentially be changed through the administrative process. But, the oxygen level requirement, VOC performance standard and toxic standard can not be changed unless Congress re-opens the CAA.

Further explanation was requested by the Panel to clarify section 211(b) of the CAA (Clean Air Act testing program). Ms. Stewart explained that there are health effects testing provisions in the CAA, and that registration of fuel additives is also required. The Panel members suggested further discussion of air toxics in order to gain a better understanding of current efforts. Additionally, the Panel members requested clarification on the different weight percentages of the RFG and winter oxygenate program (2.0 percent RFG program – 2.7 percent winter oxygenate program).

Slides for the following presentations can be found on the Blue Ribbon Panel home page located at: www.epa.gov/oms/consumer/fuels/oxypanel/blueribb.htm

Overview of the Drinking Water Program

Cynthia Dougherty, Director of EPA's Office of Ground Water and Drinking Water, presented an overview of the public water systems framework. Ms. Dougherty explained that it is the responsibility of the individual states to regulate public water systems. Ms. Happel, Environmental Scientist at Lawrence Livermore Laboratory, mentioned that if a regulatory determination is made on water quality (e.g. MCL – Maximum Contaminant Level), EPA has two years to establish a final regulation. Water systems would then have three years to reach compliance. Panel members stated that other prevention measures exist to protect water quality, aside from implementation of a MCL. Mr. Greenbaum informed the Panel that beginning October 1999 there is a rule that will require water systems to notify customers in a customer confidence report, of the contaminants that are found in drinking water.

Overview of the Underground Storage Tank Program

Anna Virbick, Director of EPA's Office of Underground Storage Tanks, gave a status update on the Underground Storage Tank (UST) regulatory clean up program. The deadline for owners and operators to upgrade, replace or close systems to protect against spills, overfills and corrosion was December 22, 1998. Because the regulation covers a very large universe (approximately two million tanks) cooperation was needed by state and local governments and professional trade associations. The compliance rate is estimated at 70 percent, with hopes of reaching 90 percent compliance by the year 2000. (At 70 percent, 270,000 tanks are still not in compliance, and at 90 percent, 90,000 tanks will still be out of compliance). There are concerns about other major sources of MTBE leakage aside from USTs. It was stated that even with 100 percent UST compliance, leaks would still occur (see Mr. Zogorski below for more details about point and non-point sources). A study is currently underway to determine how effective clean-up efforts have been. The Panel expressed concern about the number of gasoline stations that are still in operation, and are now out of compliance, and the potential hazard that they present. (Ms. Virbick did not provide slides for this presentation).

Overview of the Reformulated Gasoline and Winter Oxygenate Programs

Lori Stewart, EPA Office of Mobile Sources, provided background information on the goals for oxygenates that were set by Congress, and the current status of the reformulated gasoline (RFG) program. Ms. Stewart showed the percentage of oxygenate use in gasoline, and presented the status of the winter oxygenated fuel program and the RFG program. The Panel requested clarification between the winter oxygenate program, developed to reduce carbon monoxide levels, and the RFG program, designed to reduce ozone. Ms. Stewart noted that the oil industry is concerned that states are proposing individual state fuel programs (boutique fuel – specialized fuels that are different in each state) that are region specific, and that this will cause problems with compliance. Next, air quality benefits of RFG were presented, and Mike Scheible of CARB, mentioned the positive air quality benefits (reduction in VOCs, CO, NOx and benzene) of the RFG program in California. Ms. Stewart then discussed the NESCAUM assessment report published in August 1998, regarding the toxicity of conventional gasoline versus RFG in the Northeast. The report concluded that Phase I RFG reduced cancer risk (associated with gasoline vapors and automobile exhaust) by 12 percent and Phase II RFG would reduce cancer risk by 20 percent. EPA will continue to address MTBE concerns. Mr. Greenbaum informed the Panel that Phase II RFG will begin on January 1, 2000, and that the level of oxygenates in the fuel will not increase.

Interagency Assessment of Potential Health Effects of Oxygenated Gasoline

Mary White, U.S. Department of Health and Human Services (DHHS), and Bill Farland, EPA's Office of Research and Development (ORD), spoke about the health effects of MTBE. Ms. White's presentation covered the Interagency Assessment of Potential Health Effects of Oxygenated Gasoline report, which was conducted for the White House Office of Science and Technology Policy. The report examined evidence from health studies of oxygenated gasoline focusing on inhalation exposures to MTBE. An important question raised by Ms. White was whether cancer risk from oxygenated gasoline is significantly different from that of conventional gasoline. Another health effects study (The Potential Health Effects of Oxygenates Added to Gasoline) was completed by the HEI, which concluded similar results.

Human Health Assessment Activities: MTBE and Other Oxygenates

Mr. Farland gave an assessment and advisory overview of the various studies that have been completed or that are currently in progress. Both federal regulatory agencies and individual states have completed studies including a water advisory, hazard assessment, carcinogen listing, cancer assessment, MCL standards, etc. However, the California reports all have different levels of authority depending on which organization completed the report. According to the Hazard Assessment on MTBE there was not enough detailed or consistent information to list MTBE as a human carcinogen. The Panel raised the question concerning the level of information known about other oxygenates. Mr. Greenbaum mentioned that testing under section 211(b) of the Clean Air Act Testing Program covers other oxygenates in addition to MTBE, but to date MTBE is the most widely researched. He informed the Panel that other areas of study are underway, including early work with MTBE mixtures, and ingestion versus inhalation. Mr. Perciasepe stated that gasoline is toxic, and questioned whether the big issue of concern is chemical toxicity or leakage. There are still many uncertainties related to MTBE, and many planned research evaluations of oxygenate toxicity and analysis of air quality trends in relation to oxygenated fuel use. Given these uncertainties, research needs must be assessed. Comments were made that EPA could give advice about MTBE contaminant levels without having a health advisory. It was noted that in addition to MCL standards, taste and odor thresholds are also very important. It was suggested that in order to gain data, a brief presentation should be given outlining the current American Petroleum Institute (API) testing. There were several comments from the Panel regarding the determination of MTBE as a carcinogen.

Ground Water Issues Associated with the Use of MTBE and Other Oxygenates in Gasoline

John Zogorski, U.S. Geological Survey (USGS), presented information on groundwater issues associated with the use of MTBE and other oxygenates in gasoline. Areas studied were chosen because of level of water use, not location of water (underground storage tank site, etc.). Four main issues were discussed.

1) Low concentrations of MTBE are often found in ambient groundwater and community water supply wells in some high MTBE use areas.
2) Some community water supply and domestic wells have had to be removed from use or treatment has been necessary.
3) A variety of sources are responsible for the occurrence of MTBE in groundwater (Point Sources: refineries, pipelines, storage tanks, spills, homeowner disposal, emissions during fueling. Non-Point Sources: vehicle emissions, vehicle evaporative losses, urban runoff, watercraft, atmospheric deposition, etc.).
4) Active remediation of MTBE may be required at some gasoline release sites where MTBE has migrated much further than conventional gasoline hydrocarbons.

Mr. Zogorski mentioned that a paper would be released in California discussing the general tenancy of water accumulation versus dispersion. Ms. Happel mentioned that in her studies benzene has traveled (similar to MTBE) several hundred feet from site of origin. It was pointed

out that other gasoline compounds aside from MTBE were detected in water supplies, and emphasized that leaks and spills are still perceived by the public as a problem. It was suggested to further explore the point and non-point sources that are responsible for MTBE in water. The Panel was very interested in learning more about the geological movement of the ground water and requested to hear more from Mr. Zogorski in the future. Many questions were asked about migration of water, chemical degradation in water, accumulation versus dispersion, etc.

PUBLIC COMMENTS

- Bill Piel, Lyondell Chemical Company, gave an overview of the development of oxygenated fuel. Mr. Piel provided detailed history of the commercialization and use of oxygenates. MTBE is used as an octane enhancer, and as a clean burning octane alternative to lead and aromatics. Mr. Piel pointed out that there is eleven years of experience with oxygenated fuel programs, and that MTBE has been used in California for twelve years. Mr. Piel added that MTBE use is very prevalent in European gasoline, and is widely used throughout the world. Mr. Piel's presentation has been submitted to the Air Docket A-99-01.

- Susan Borghoff, CIIT, discussed a research program on toxicity of ETBE, TAME, and MTBE, which began in 1994 with support from the Oxygenated Fuels Association (OFA). The bioassay study included two different species of rodents. They conducted a 28-day study on the palatability of MTBE in water. The rodents continued to ingest MTBE despite the taste and odor.

- Terry Wigglesworth, Oxygenated Fuels Association, gave a statement on the benefits of oxygenates in gasoline. Ms. Wigglesworth offered the assistance of OFA and member companies throughout the Panel process. She stressed the importance of MTBE as a component in the nation's clean-fuels strategy for continuing clean air improvements. Many scientific studies have found MTBE to be not classifiable as a human carcinogen. Ms. Wigglesworth made note that evidence has shown decline in human cancer risk due to the decline in ambient benzene levels and gasoline vapors. Ms. Wigglesworth stated that water contamination is not unique to MTBE, and that OFA supports the need for controlling leaks from UST and marine engines. Ms. Wigglesworth provided a written copy of her statement, which has been submitted to the Air Docket A-99-01.

- Jeff Kuhn, State of Montana, informed the Panel about MTBE workgroup efforts in the State of Montana. The MTBE workgroup produces a coordinated newsletter voicing the concerns of the twenty active state members. Mr. Kuhn stated the inability to enforce water quality standards because EPA has not established a MCL, and that the human health studies are not complete. Furthermore, he expressed the need for data on both carcinogenic and non-carcinogenic effects.

- Megan Smith, American Bioenergy Association, discussed benefits from the use of biomass

ethanol. Ms. Smith mentioned the new cellulosic conversion process now in place, and added that renewable fuel could be used to substitute MTBE. It is possible to phase in biomass ethanol and then replace MTBE within one to two years. Ms. Smith emphasized that biomass ethanol should not be overlooked in this debate.

PANEL MEMBER DISCUSSION (Comments, Questions, Suggestions)

The final portion of the meeting was provided to give the Panel members the opportunity to voice or reiterate any concerns, comments, questions, or to request additional information. The comments below are a summary of the thoughts expressed by individual Panel members. However, some of the comments may have been stated more than once, or clarified by more than one Panel member.

Comments

- Water treatment technology is different for surface and groundwater
- Strong legislative reactions are very effective at raising public concerns
- California Energy Commission study addresses supply and cost (Supply and Cost of Alternatives to MTBE in Gasoline)
- Approach should be taken looking first to maintain level of air quality
- Concerned about the absence of clarity, MCL level, hard to implement programs
- Consider what may replace MTBE (if removed) – lack of toxicity data, supply issues
- It is clear that all analysis on gasoline cost and supply presume preservation of gasoline quality requirements for air quality (money and time become variable in analysis) when looking to future air quality programs
- The Panel must not detract from air quality benefits
- Large air quality benefits from RFG, and reduced cancer rates
- Panel should learn more about ground water resources and water supply

Questions/Suggestions

- Further discuss taste and odor – very important
- What portion of positive air quality benefits come from MTBE?
- Request more information on the air toxics benefits of RFG (Title 3 – air toxics)
- How to best deal with the emotional issue – public opinion and lack of understanding?
- Agreement wanted on which categories to consider, in order to determine degree of problem and plausible alternatives
- What is the best way to educate, minimize, and prevent human accidents?
- Increased understanding of ground water contamination and water treatment is needed
- A solution to the problem is hoped for, rather than MTBE ban
- Request for more information on RFG without the use of oxygenates.
- If change occurs, the fuel supply issue must be discussed in order to prevent fuel supply

disruptions

- Use cost benefit approach to form solution
- Consider impact of potential policy changes
- Provide the Panel with a presentation on refining process or gasoline blending process
- Provide the Panel with a presentation from California (Santa Clara) water district on how to deal with current problem
- More information requested on understanding point sources, and clean up technologies
- Provide the Panel with more passionate and emotion concerns from public
- More information is needed on aquatic health versus human health (Hear from workgroup completing study on all aquatic toxicity tests for framework for federal water quality standard)
- Provide the Panel with a level of certainty/confidence of the air quality benefits from oxygenates or alternatives
- Provide the Panel with more information on the influence of oxygenates on particulate matter (PM) – contact groups who are conducting those studies

CLOSING REMARKS

A statement by Mr. Perciasepe made clear that EPA's objective in calling this Panel together is to examine how to achieve air quality and protect against any water quality issues that are in need of being dealt with. He stated that we have only begun discussions, but wanted to make sure to note concerns regarding today's lengthy discussions on water quality and not enough discussion on air quality. When in fact there are very quantifiable and significant air quality benefits of the air quality program. There are significant public health risks in the U.S. from air pollution. EPA is expecting a certain contribution from fuels to fix the air problem, and the Panel needs to work on balancing the air and water issues. Mr. Perciasepe recommended providing a strong technical understanding of the air quality benefits for those who have questions about the benefits. EPA will not detract from air quality benefits as this process moves forward. Mr. Perciasepe encouraged providing names or contacts to Karen Smith, of any person or project that may be beneficial for the Panel to learn about.

MTBE PANEL MEMBER ATTENDEES

Mark Beuhler - Metropolitan Water District of Southern California
Robert Campbell - Sunoco, Inc.
Roger Conway - U.S. Department of Agriculture
Cynthia Dougherty - U.S. Environmental Protection Agency
Patricia Ellis - Delaware Department of Natural Resources and Environmental Control
Bill Farland - U.S. Environmental Protection Agency
Daniel Greenbaum - Health Effects Institute
Jason Grumet - Northeast States for Coordinated Air Use Management
Anne Happel - Lawrence Livermore National Laboratory
Carol Henry - American Petroleum Institute
Barry McNutt - U.S. Department of Energy
Margo Oge - U.S. Environmental Protection Agency
Robert Perciasepe - U.S. Environmental Protection Agency
Robert Sawyer - University of California at Berkeley
Michael Scheible (in place of Mike Kenny) - California Air Resources Board
Karen Smith - U.S. Environmental Protection Agency (DFO)
Todd Sneller - Nebraska Ethanol Board
Debbie Starnes - Lyondell Chemical Company
Anna Virbick - U.S. Environmental Protection Agency
Ron White - American Lung Association
Mary White - Agency for Toxic Substances and Disease Registry
John Zogorski - U.S. Geological Survey

PANEL MEMBERS NOT IN ATTENDANCE

Linda Greer - Natural Resources Defense Council

Sign-In-Sheet
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January 22, 1999
Crystal City Marriott
Arlington, VA

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