

MEETING SUMMARY

of the

EXECUTIVE COUNCIL

of the

NATIONAL ENVIRONMENTAL JUSTICE ADVISORY COUNCIL

October 21 through 23, 2008
Atlanta, Georgia

Victoria J. Robinson

Victoria J. Robinson
Designated Federal Officer

Richard Moore
Chair

PREFACE

The National Environmental Justice Advisory Council (NEJAC) is a Federal advisory committee that was established by charter on September 30, 1993, to provide independent advice, consultation, and recommendations to the Administrator of the U.S. Environmental Protection Agency (EPA) on matters related to environmental justice. The NEJAC had 16 members and one Designated Federal Officer (DFO). To date, NEJAC has held twenty-five meetings in the following locations:

- Washington, DC, May 20, 1994
- Albuquerque, New Mexico, August 3 through 5, 1994
- Herndon, Virginia, October 25 through 27, 1994
- Atlanta, Georgia, January 17 and 18, 1995
- Arlington, Virginia, July 25 and 26, 1995
- Washington, DC, December 12 through 14, 1995
- Detroit, Michigan, May 29 through 31, 1996
- Baltimore, Maryland, December 10 through 12, 1996
- Wabeno, Wisconsin, May 13 through 15, 1997
- Durham, North Carolina, December 8 through 10, 1997
- Arlington, Virginia, February 23 through 24, 1998 (Special Business Meeting)
- Oakland, California, May 31 through June 2, 1998
- Baton Rouge, Louisiana, December 7 through 10, 1998
- Arlington, Virginia, November 30 through December 2, 1999
- Atlanta, Georgia, May 23 through 26, 2000
- Arlington, Virginia, December 11 through 14, 2000
- Washington, DC, August 8 through 10, 2001 (Special Business Meeting)
- Seattle, Washington, December 3 through 6, 2001
- Baltimore, Maryland, December 9 through 12, 2002
- New Orleans, Louisiana, April 13 through 16, 2004
- Washington, DC, January 5 through 6, 2006 (Special Business Meeting)
- Washington, DC, June 20 through 22, 2006
- Baltimore, Maryland, September 18 through 20, 2007
- Washington, DC, June 10 through 12, 2008
- Atlanta, Georgia, October 21 through 23, 2008

The NEJAC also has held other meetings which include:

- Public Dialogues on Urban Revitalization and Brownfields: Envisioning Healthy and Sustainable Communities, held in Boston, Massachusetts; Philadelphia, Pennsylvania; Detroit, Michigan; Oakland, California; and Atlanta, Georgia in Summer 1995
- Relocation Roundtable, Pensacola, Florida, May 2 through 4, 1996
- Environmental Justice Enforcement and Compliance Assurance Roundtable, San Antonio, Texas, October 17 through 19, 1996
- Environmental Justice Enforcement Roundtable, Durham, North Carolina, December 11 through 13, 1997
- International Roundtable on Environmental Justice on the U.S./Mexico Border, San Diego, California, August 19 through 21, 1999

As a Federal advisory committee, the NEJAC is governed by all provisions of the Federal Advisory Committee Act (FACA) of October 6, 1972. Those requirements include:

- Members must be selected and appointed by EPA
- Members must attend and participate fully in meetings of the NEJAC
- Meetings must be open to the public, except as specified by the EPA Administrator
- All meetings must be announced in the Federal Register
- Public participation must be allowed at all public meetings
- The public must be provided access to materials distributed during the meeting
- Meeting minutes must be kept and made available to the public
- A DFO must be present at all meetings of the NEJAC (and its subcommittees)

- The NEJAC must provide independent judgment that is not influenced by special interest groups

EPA's Office of Environmental Justice (OEJ) maintains transcripts, summary reports on the meetings of the NEJAC, and copies of material distributed during the meetings. Those documents are available to the public upon request.

Comments or questions can be directed to OEJ through the Internet. OEJ's e-mail address is:

environmental-justice-epa@epa.gov

Executive summaries of the reports on the meetings of the NEJAC are available in English and Spanish on the Internet at the NEJAC's World Wide Web home page:

<<http://www.epa.gov/compliance/environmentaljustice>>

(click on the link to the National Environmental Justice Advisory Council)

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**National Environmental Justice Advisory Council
Atlanta, Georgia
October 21 through 23, 2008**

Meeting Summary of the Executive Council

This summary presents highlights of the 25th meeting of the National Environmental Justice Advisory Council (NEJAC) Executive Council held October 21 through 23, 2008 in Atlanta, Georgia and the public comment period that was held on October 22, 2008.

NEJAC is a Federal advisory committee that was established by charter on September 30, 1993, to provide independent advice, consultation, and recommendations to the Administrator of the U.S. Environmental Protection Agency (EPA or the Agency) on matters related to environmental justice. Mr. Richard Moore, Executive Director, Southwest Network for Environmental and Economic Justice, serves as the Chair of the NEJAC Executive Council. Ms. Victoria Robinson, NEJAC Program Manager, EPA Office of Environmental Justice (OEJ) is the Designated Federal Officer (DFO) for NEJAC. Exhibit 1 lists the members of the Executive Council who were in attendance, as well as those who were unable to attend the meeting.

OEJ maintains transcripts and summary reports of the proceedings of the meetings of NEJAC. Those documents are available to the public upon request. The public also has access to the executive summaries of reports of previous meetings, as well as other publications of the NEJAC, through the Internet at www.epa.gov/compliance/environmentaljustice/nejac/meetings.html (select the meeting summaries link).

This summary is organized into two chapters. Chapter 1, NEJAC Executive Council Discussions, summarizes the deliberations of the NEJAC and is organized into the following sections: 1) Welcome and Introductions; 2) Environmental Justice Best Practices Forum; 3) Dialogue with Mr. Granta Nakayama, Assistant Administrator, EPA Office of Enforcement and Compliance Assurance; 4) NEJAC Work Group Discussions; 5) EPA Environmental Justice Program: Historic Lessons and Future Directions Presentation; 6) Differential Impacts of Climate Change Panel; 7) Factors to Identify and Assess Disproportionate Environmental Justice Impacts Discussion; and 8) Closing Statements and Next Steps. Chapter 2, Summary of Public Comment Period, summarizes the public comment period.

Exhibit 1

NEJAC EXECUTIVE COUNCIL

Members in Attendance

Mr. Richard Moore, Chair

Mr. Chuck Barlow
Ms. Sue Briggum
Ms. Jolene Catron
Mr. William Harper
Mr. Christian Holmes
Mr. J. Langdon Marsh
Mr. Gregory Melanson
Mr. Paul Mohai
Mr. Shankar Prasad
Mr. John Ridgway
Mr. John Rosenthal
Ms. Patricia Salkin
Mr. Omega Wilson
Ms. Donele Wilkins
Ms. Victoria Robinson, DFO

Members not in Attendance

Ms. M. Kathryn Brown
Ms. Jodena Henneke
Ms. Joyce King
Ms. Elizabeth Yeampierre

Chapter 1

NEJAC Executive Council Discussions

1.0 Welcome and Introductions

Mr. Charles Lee, Director, U.S. Environmental Protection Agency (EPA or the Agency) Office of Environmental Justice (OEJ), Mr. Richard Moore, Executive Director, Southwest Network for Environmental and Economic Justice, Ms. Catherine McCabe, Deputy Assistant Administrator (DAA), Office of Enforcement and Compliance Assurance (OECA), Mr. Granta Nakayama, Assistant Administrator (AA), OECA, Mr. Russell Wright, Acting Deputy Regional Administrator (DRA), EPA Region 4, and Mr. Robert Varney, Regional Administrator, EPA Region 1, provided opening remarks.

During his welcoming remarks, Mr. Lee described the need to ensure that the NEJAC continues to move forward during the transition to a new Presidential administration. He noted that several of the presentations will address this issue, particularly his comments on the future direction of OEJ. Additionally, Mr. Lee formally announced that Ms. Victoria Robinson, NEJAC Program Manager, EPA OEJ, will serve as the Designated Federal Officer (DFO) for the NEJAC. Mr. Moore congratulated the 12 winners of EPA's first Environmental Justice Achievement Awards, and emphasized the need for the NEJAC to continue to focus on the improvement of communities, adding that the Best Practices section will provide important lessons learned for community betterment. Mr. Wright echoed Mr. Moore's comments stating that the best practices outlined during this meeting will inform future successes for communities nationwide.

Ms. McCabe described OECA's recent enforcement successes, including the installation of \$11 million in pollution controls that has resulted in the removal of more than three billion pounds of pollutants. She added that OECA is working on quantifying these reductions in terms of human health impacts, particularly in environmental justice communities. Ms. McCabe noted the importance of integrating environmental justice into the Agency's planning, decision-making, and enforcement processes. Over the last three years, OECA and OEJ have succeeded in building momentum around environmental justice. At the most senior level, EPA has revitalized the Environmental Justice Steering Committee, a collection of EPA's senior management (i.e., DAAs and DRAs) who provide oversight and cohesion to the Agency's environmental justice efforts. The Agency has added specific environmental justice priorities in the annual National Program Managers Guidance, the Agency's operation manual. To ensure accountability for environmental justice integration, EPA's regional and program offices have developed Environmental Justice Action Plans (Action Plans), which outline the environmental justice activities to be undertaken and the anticipated results. With respect to rulemaking, OEJ now participate in the workgroups that develop and design rules and regulation to help ensure that the impacts on environmental justice communities are considered during the rulemaking process. In addition, OECA and OEJ have developed quantitative tools such as the Environmental Justice Strategic Enforcement Assurance Tool (EJSEAT) to measure disproportionate impacts. She stated that the Agency needs to capitalize on these recent successes and continue to move forward, especially given the upcoming Presidential transition.

Mr. Varney described how EPA Region 1 has worked to integrate environmental justice. The regional office has instituted a mandatory environmental justice training for all employees. This training includes both classroom instruction and community-led field trips. Additionally, the regional office is ensuring accountability by tracking progress and will remain dedicated to addressing environmental justice.

Mr. Nakayama affirmed EPA's continuing commitment to environmental justice and NEJAC's role as an important advisory board and added that Administrator Johnson has been impressed with the NEJAC's ability to provide robust and thoughtful advice. Mr. Nakayama attributed this success to the NEJAC's dedication, diverse viewpoints, and open discussions.

Highlights from the follow-up discussion included:

- Ms. Patricia Salkin, Professor, Albany Law School, inquired about how NEJAC can assist in the benchmarking of environmental justice commitments in the Action Plans. Mr. Lee replied that the

Action Plans are reviewed annually to assess progress. OEJ is working with the regional and program offices to better align these commitments to the core planning processes as well as incorporate result-oriented measures. In terms of NEJAC's role to ensure accountability, Mr. Lee noted that the NEJAC, as a Federal advisory committee, is responsible for providing recommendations. NEJAC can support the development of stakeholder partnerships in order to integrate the needs of the affected populations into the plans.

- Mr. J. Langdon Marsh, Fellow, Portland State University, commended EPA for quantifying enforcement actions in terms of pollution reductions rather than penalty amounts. He acknowledged that this is the beginning of a paradigm shift where enforcement actions are reported as direct health benefits (i.e., deaths prevented). Ms. McCabe responded that EPA is making progress on calculating direct health benefits of Agency actions. For example, EPA has measured the health benefits from last year's ten largest air pollution enforcement cases.
- Ms. Salkin encouraged EPA to engage local planning agencies on issues relating to environmental justice. She suggested that EPA provide training and incentives to encourage such agencies to consider environmental justice.

2.0 Environmental Justice Best Practices Forum

The recipients of the first EPA Environmental Justice Achievement Awards (presented on October 21, 2008) were invited to provide presentations on best practices based on the experiences and successes of their organizations. Presenters were divided into three groups: Communities and Indigenous Populations, State and Local Governments, and Non-Governmental/Environmental Organizations (including Academic Institutions).

2.1 Communities and Indigenous Populations

2.1.1 Center for Environmental and Economic Justice

Bishop James Black, Executive Director, Center for Environmental and Economic Justice, Inc. (CEEJ), discussed his work to improve the environmental conditions of the Turkey Creek community, located near the Naval Construction Battalion, the Gulfport/Biloxi Airport, and the vacant Gulf Coast Creosote Plant. He described CEEJ's efforts as an extension of the Civil Rights Movement and explained how CEEJ decided to focus on toxins stored at military bases along the Gulf Coast. As a result of poorly stored Agent Orange containers at the Battalion, dioxin leached into nearby aquifers contaminating a valuable water source. He described how inadequate oversight and deterioration of the creosote plant led to waste releases that contaminated approximately 15 acres and poisoned fish in local rivers. Hurricane Katrina helped to further spread the contamination.

Bishop Black explained that CEEJ began collaborating with Ms. Gloria Tatum, Environmental Scientist, Mississippi Department of Environmental Quality (MDEQ), to address these issues. Ms. Tatum and CEEJ worked with a remediation company, Environmental Management Services of Mississippi (EMS), to develop a dialogue to exchange information about the contamination and the cleanup process. To raise awareness of the contamination and its impacts, CEEJ started a community newspaper, spoke on local gospel radio shows, and facilitated door-to-door discussions. The community newspaper featured articles from community residents and EMS, which provided periodic updates on the cleanup process. By building awareness and encouraging meaningful involvement, CEEJ was able to bring EMS to the table to discuss the community's concerns; however, Bishop Black noted that the responsible parties have yet to engage in an open dialogue with the community.

2.1.2 Citizens for Environmental Justice

Dr. Mildred McClain, Executive Director, Citizens for Environmental Justice (CFEJ) and Harambee House, Inc., provided lessons learned from the work done by the two organizations to address environmental justice issues in Savannah, Georgia. CFEJ, which was established in 1990, works to improve access to environmental training and builds capacity in marginalized communities. The Black Youth Leadership Development Institute, developed by CFEJ, has worked to increase understanding of local environmental justice issues among young adults and to marry scientific results with anecdotes from residents in order to completely understand each community's reality. Building on a relationship with

EPA, CFEJ has strengthened community voices to ensure that their perspectives are integrated into the planning, implementation, and evaluation stages of all activities that affect them.

Dr. McClain discussed several best practices during her presentation. She noted that capacity building should respect and reflect the culture of the community and their history. For example, at the beginning of meetings, Dr. McClain leads participants in song and dance. Additionally, food is provided as a show of respect for the community culture as well as to address the dietary needs of the community. Using the collaborative problem-solving (CPS) model, CFEJ has been able to open dialogues between industry and community organizations. In Savannah's Hudson Hill and Woodville communities, CFEJ employed CPS techniques to help the community build a partnership with the International Paper Company, which operates a facility in the neighborhoods. Dr. McClain noted the need to identify and engage environmental justice champions in all sectors, thereby incorporating the true needs and cultures of communities, adding that, with capacity building, community people will promote institutional change within their organizations. Dr. McClain closed with a salute of "Harambee!" which means "Let's pull together until the race is finished."

2.1.3 Safer Pest Control Project

Mr. Kent Benjamin, Environmental Justice Coordinator, EPA Office of Solid Waste and Emergency Response, and Ms. Rachel Rosenberg, Executive Director, Safer Pest Control Project (SPCP), reviewed her presentation, *Changing Pesticide Practices: Best Learners Grow in Pesticide-Free Environments*. SPCP was established in Chicago in 1994 to reduce pesticide use in Illinois through education, policy, training, and advocacy. Ms. Rosenberg noted that children are among the populations most susceptible to pesticide exposure due to their higher metabolisms, increased hand-mouth activities, and lack of fully developed organs. Exposure to pesticides has been linked to cancer, birth defects, and neurological, behavioral, reproductive, hormonal, and immune system disorders.

Ms. Rosenberg described integrated pest management (IPM) as a proven, effective, and economical method of pest control that eliminates the root causes of pest problems by using a variety of non-toxic measures such as improved maintenance and sanitation to minimize pests' access to food, water, and shelter. Ms. Rosenberg described how, in 2003, Illinois became the fifth state to adopt legislation that requires IPM and parental notification prior to pesticide use in licensed childcare facilities. However, the state provided no financial support for training and integration efforts. As a result, in 2004, SPCP and 15 other organizations created the Partnership for Childcare IPM, a unique collaboration aimed at integrating IPM information into childcare training programs statewide. Specifically, SPCP works with schools and municipal groups to assist in the development and adoption of IPM in licensed childcare facilities. SPCP has raised more than \$300,000 through government and private foundations and trained more than 1,400 individuals serving 45,000 children in Illinois.

Mr. Benjamin introduced SPCP's project work in low-income housing and schools, which focuses on improving the environmental health of their residences through reduced pesticide exposure. He described how SPCP invited leaders from different areas to collaborate and develop original and approachable outreach materials, posters, newsletter, and articles under the Partnership for Childcare IPM. The group faced various challenges, including: finding effective means to reach various audiences (e.g., childcare providers, nurses, and parents), providing training, surveying community members, and analyzing the effectiveness of the program. Mr. Benjamin explained that, by surveying trained individuals and groups, SPCP found that knowledge of IPM increased by 52 percent following their education efforts. SPCP used similar methods to educate communities in Chicago about pediatric asthma.

2.1.4 West End Revitalization Association

Mr. Omega Wilson, President, West End Revitalization Association (WERA), highlighted his community's fight for the right to basic amenities and their success in working with AmeriCorps VISTA, which is the national service program designed specifically to fight poverty. His community of Mebane, North Carolina, lacked paved streets, school buses, mail trucks, and many utilities and basic municipal services, which impeded the town and citizens' development. Mebane is a historical African American town, established just after the Emancipation Proclamation, in which numerous structures, churches, and cemeteries from the 1800s are located. Mr. Wilson described how, with AmeriCorps VISTA's assistance, WERA undertook preservation and infrastructure activities in three African American communities in

Mebane, helping to create community drinking water, surface water, and sewer lines. He stated that, as a result of these efforts, WERA's slogan has become "Set a Plumblin'," which comes from a scripture in the Bible.

Mr. Wilson highlighted WERA's challenges and progress in his Johns Hopkins University journal article, "The West End Revitalization Association (WERA)'s Right to Basic Amenities Movement: Voice and Language of Ownership and Management of Public Health Solutions in Mebane, North Carolina." The first in a three-part series, this article represents the community voice and represents lessons learned in Mebane. The National Institutes of Health (NIH) and the National Institute of Environmental Health Sciences (NIEHS) recently awarded WERA a partnership grant along with the University of South Carolina to analyze the benefits and drawbacks of applying WERA's approach on a national level to engage communities and stakeholders.

2.1.5 Anahola Homesteaders Council

Mr. James Torio, Executive Director, Anahola Homesteaders Council (AHC), presented the video *Living Document of Project Imua*, about the Project Imua collaborative partnership that allows Native Hawaiians to actively participate in environmental research in their own backyards. AHC works to improve the water quality of Anahola rivers and streams in Kauai, Hawaii, address the need for proper solid waste management and promote economic development for Native Hawaiians by creating a community center. The video included a description of the environmental conditions of Hawaiian sugar cane land, which has been a dumping ground for abandoned cars, batteries, and other waste and highlighted the project's educational experiences, including youth hikes in the rainforests of Hawaii and lessons in using scientific instruments to measure water pollution. Mr. Torio discussed how Project Imua successfully created a feeling of investment with the community by inviting college interns and elders to participate and provide suggestions for future cleanup programs. Project Imua has since moved to the University of Hawaii and has applied for a Brownfield Cleanup grant.

Highlights of the follow-up discussion included:

- Unconventional partnerships have arisen in several communities. For example, Harambee House partnered with the International Paper while The Anahola Homesteaders Council partnered with a finance firm. These partnerships can be highly successful and beneficial to environmental justice goals by bringing all parties to the table, educating stakeholders, achieving agreement on environmental justice topics, and leveraging financial and volunteer resources to address more issues.
- Ms. Jolene Catron, Executive Director, Wind River Alliance, described her efforts to ensure that Native American cultural practices are considered to be just as important as science in the decision-making process. Dr. McClain agreed that integration of cultural practices, including community meals and musical performances, can educate potential community and agency partners, change perceptions, and build stronger commitments between authorities and community organizers.
- NEJAC members and panelist agreed that finding the right person, an environmental justice champion, in an agency, business, or organization is crucial for integration of the environmental justice message throughout the organization, especially at the senior management level.
- Panelists agreed that despite some sampling in environmental justice communities, blood testing to determine the extent and nature of contamination and subsequent health effects in these areas is lacking.

2.2 State and Local Governments

2.2.1 County of San Diego Department of Environmental Health

Ms. Susan Hahn, Environmental Health Specialist, County of San Diego Department of Environmental Health, discussed her presentation, *The Negocio Verde Environmental Justice Task Force*. The Negocio Verde Environmental Justice Task Force focuses on air pollution control, hazardous materials, and storm water protection within the automotive business sector. Ms. Hahn stated that the Negocio Verde Environmental Justice Task Force is composed of members of the San Diego County government, local businesses, community representatives, and community colleagues. She described how the Negocio Verde Environmental Justice Task Force created multi-media, multi-cultural, and multi-dimensional

workshops that were presented in the communities where small businesses are located and provided materials for businesses and citizens such as hydrophobic mops for oil spills, mop buckets, and training in English and Spanish. This program was particularly successful because it brought together many agencies and community members into two sub-committees, which addressed community and small business issues. Cooperation between these sub-committees was crucial and because participants were invested in the cause, they were able to develop solutions to environmental justice issues. The *Negocio Verde* Environmental Justice Task Force was so well received that it continued on even after the planned termination date of December 2002. Between 2003 and 2007, the *Negocio Verde* Environmental Justice Task Force held 10 workshops and seven environmental fairs. They also gained partnership interest from BAE Systems, General Dynamics, NASSCO, and other shipyard industry members.

2.2.2 *New Mexico Environmental Department*

Mr. Thomas Ruiz, Border and Environmental Justice Liaison and Mr. Milton Bluehouse, Environmental Justice and Tribal Liaison, New Mexico Environmental Department (NMED), presented eight best practices that the NMED follows in their programs:

- Respecting various interests,
- Listening,
- Seeking guidance,
- Communicating with industry members and members to determine and clarify issues,
- Seeking participation,
- Acknowledging mistakes, taking responsibility, and moving on,
- Seeking interest based problem-solving, and
- Raising awareness of environmental justice within departments.

Mr. Ruiz read a letter from NMED Secretary Ron Curry, which iterated the state's support for NMED's environmental justice work. The letter highlighted activities that New Mexico has undertaken to better meet the needs of the environmental justice community, including translation services, environmental justice training for all new hires, and strong new solid waste regulations. Mr. Ruiz also described the continued severity of Mexico-United States border issues, including environmental health disparities. Mr. Ruiz explained the EPA Border 2012 program, which began in 1994 and prioritizes American and Mexican resources to examine the environmental impacts of increased trade on border communities. Mr. Ruiz described the plan, which was rejuvenated in 2002, as a great vehicle for pursuing environmental justice in rural communities that lack air quality monitoring. He said that educating residents about their community's air quality status has stimulated further interest in pursuing additional environmental justice assistance. Mr. Bluehouse explained that additional assistance is needed for the New Mexico communities, especially the 22 recognized tribes, which claim 11 percent of New Mexico's land. He added that improving the U.S. government's relationship and participation in New Mexico tribal summits would speed up the programs, funding, and training needed to help these communities.

2.2.3 *South Carolina Department of Health and Environmental Control*

Ms. Nancy Whittle, Community Liaison, South Carolina Department of Health and Environmental Control (DHEC), spoke to the need to change DHEC's internal culture to recognize needs of the communities instead of reacting to the sometimes difficult and contentious situations at community meetings. She described how DHEC and community interactions had become stagnant, leading DHEC to create a Public Participation Task Force. The Task Force was formed with the goal of examining all state programs and increasing efforts to meaningfully involve the public in DHEC decision-making processes. The Public Participation Task Force's efforts encourage proactive collaboration and help educate DHEC staff so that they can collaborate with citizens in a way that is valuable to DHEC and stakeholders. Ms. Whittle described the mandatory state staff training that DHEC developed with financial assistance from EPA Office of Civil Rights. The week-long training involved participation of local citizens and industry and resulted in the training of 14 DHEC staff. The training reminded staff in state agencies that they work as public servants and should be responsive to public interests and concerns. DHEC also created a public participation video to discuss environmental justice topics in the context of state employee responsibilities. DHEC has used the Spartanburg, South Carolina, ReGenesis project as a model to demonstrate effective collaboration in environmental justice communities. DHEC has added five additional agency positions dedicated to community involvement work.

Highlights of the follow-up discussion included:

- Panelists agreed that, while technical and scientific skills are important, gaining trust, interpersonal skills, facilitation, and communication are critical for state and local government officials to engage with environmental justice communities and organizers. Panelists also indicated that an understanding of cultural and quality of life issues is just as important as health and environmental risk assessment.
- Mr. Bluehouse stated that New Mexico is progressive in emphasizing that tribal citizens are also state citizens and entitled to all state benefits. At the same time, the state must be mindful not to infringe on tribal sovereignty.
- In response to a question on effective tactics, panelists cited the following activities as being effective for improving knowledge of and response to environmental justice issues in state agencies: organizing site visits with state officials to environmental justice communities; educating legislators, who will then question agency staff; and mentoring within agencies to institutionalize consideration of environmental justice issues.
- Panelists emphasized that institutionalizing environmental justice throughout the various levels of state agencies can keep the issue intact and relevant even when staff and administrations transition out of the agency and state governments.

2.3 Non-Governmental/Environmental Organizations

2.3.1 *Communities for a Better Environment*

Mr. Bill Gallegos, Executive Director, Communities for a Better Environment (CBE), described the group's work in California to achieve better enforcement of refinery flaring, which is the combustion of excess gases that may be produced during startups and shutdowns of process units and equipment at a refinery site. CBE was a leader in getting the Bay Area Air Quality Management District to adopt a flare control rule, the first in the United States to require all feasible measures to prevent petroleum refinery flaring. Mr. Gallegos presented extensive background information regarding fossil fuel dependence in California and the resulting contribution to increasing poor air quality days in the state. He stated that emissions from oil refineries have been increasing due to increasing energy demands. Mr. Gallegos expressed concerns about the effects of air pollution on environmental justice communities surrounding the refineries, which are increasingly Hispanic and Latino in population. CBE has pursued a bottom-up approach and directly involved the community in developing and distributing surveys to determine neighborhood childhood asthma rates and undertake local air sample collections. Mr. Gallegos described how CBE presented the air data results to Bay Area city officials. The presentation of the data and the large turnout of community member support increased city officials' attention on the community's concerns. Mr. Gallegos said that the main lesson learned for this group was that building broad relationships with as many people as possible is effective in gaining understanding and support.

2.3.2 *Duke University Children's Environmental Health Initiative*

Dr. Marie Lynn Miranda, Director, Duke University Children's Environmental Health Initiative (CEHI), gave a presentation on *Collaborating to Prevent Childhood Lead Poisoning*. Dr. Miranda stated that lead poisoning is the foremost environmental threat to children in the United States and low-income and minority children have the highest level of risk. She described how CEHI has worked to change the paradigm in childhood lead poisoning prevention, which has been reactive in the past. Dr. Miranda described how typical lead programs wait to act until after testing has shown that children have high lead levels, but CEHI proactively focused on the link between early childhood lead exposure and education outcomes to prevent exposure.

To address areas of increased blood lead levels in communities, CEHI developed a childhood lead exposure risk model, which combined lead screening data, Census data, and county tax parcel data to model, home by home, which areas could have higher potential for lead poisoning. This model identified 6,300 housing units as high priority for the lead exposure prevention. The results were used by community advocates and public health officials to target resources for housing and health interventions. Counties throughout North Carolina are using the model to recruit landlords into lead abatement programs. Duke University has further plans to develop the model across all counties in North Carolina. This approach was also used to specifically address lead in drinking water in Durham County, North

Carolina. Dr. Miranda said that CEHI learned that good analysis can provide a substrate for better decision-making and that engaging stakeholders at the local, regional, and national levels allows for comprehensive ideas. She described how the collaboration also helped the participants to focus on shared goals, which eventually allowed for more partnering opportunities.

2.3.3 *Medical University of South Carolina*

Mr. David Rivers, Director, Public Outreach and Information Section, Medical University of South Carolina (MUSC) Library, discussed his presentation, *Public Information and Community Outreach (PICO) Events*. As early as 1999, MUSC collaborated with EPA and South Carolina State University to organize a national environmental justice conference with more than 500 attendees. Since then, PICO has provided lectures, listening sessions, and trainings for emergency first responders to enhance understanding of natural disaster emergencies. PICO also worked with the City of Charleston, MUSC, and the community to get funding for a much-needed community health center and has partnered extensively with the Congressional Black Caucus to hold Annual Environmental Justice Braintrusts to develop awareness of local environmental justice, healthcare, energy, and other issues. PICO developed Community Leadership Institutes (CLIs) throughout the United States with the goal of helping environmental justice communities identify healthcare resources, develop affordable housing and transportation, and bring awareness to environmental justice, poverty, and education issues. Mr. Rivers described PICO's numerous Technical Assistance Workshops (TAWs) and Youth Leadership Institute (YLI) Summits that were held to help local groups learn grant writing and resource management in order to increase their competitive edge in the grant writing world. He discussed PICO's made-for-television dialogues on health issues and alternative fuels, which have been broadcast several times on South Carolina public television channels. Mr. Rivers concluded that, despite planning and funding challenges, PICO learned that building relationships creates positive attitudes.

2.3.4 *Deep South Center for Environmental Justice at Dillard University*

Dr. Beverly Wright, Executive Director, Deep South Center for Environmental Justice at Dillard University, gave a presentation titled *From Peril to Progress*, in which she discussed the Katrina Survivors Project - Expanded Advisory Board and A Safe Way Back Home project; both projects addressed contamination, cleanup, and capacity building to help displaced residents of Louisiana. Dr. Wright discussed the serious issues that many residents experienced during and after Hurricane Katrina, which included the inability to evacuate during the impending storm, flooding, lack of fresh drinking water, and toxic contamination that destroyed communities and schools. According to Dr. Wright, following the disaster, the State of Louisiana was forced to tear down most public housing facilities due to the sheer extent of toxic contamination and insurmountable challenges in cleaning up the housing sites. The residents of these developments were left with nothing, while state funds were being spent elsewhere.

Dr. Wright described the efforts of the Ford Foundation-funded Katrina Survivors Project – Expanded Advisory Board held meetings in towns and cities with large numbers of displaced residents to inform and encourage them to return home. However, due to the contamination and destruction, many residents decided not to return. To alleviate this situation, The Katrina Survivors Project – Expanded Advisory Board established A Safe Way Back Home campaign. Dr. Wright said that this education effort was helpful for those who wanted to determine the extent of contamination in their homes. A Safe Way Back Home offered homeowners of damaged properties the chance to work proactively to help their neighborhoods return to their original state. Under the campaign, the Deep South Center for Environmental Justice worked with the Red Cross, United Steelworkers, and environmental organizations to lead numerous community citizens in block-by-block cleanups and decontamination projects. They trained volunteers in waste cleanup, top soil removal, and sod placement, thus building capacity and self reliance among neighborhood participants. Dr. Wright stated that the project demonstrated to the government that block-by-block cleanup and remediation is not only necessary, but entirely possible. Dr. Wright summarized that the most important lesson learned was the importance of building a knowledge base within a community in order to build capacity and enable communities and citizens to thrive independently, even after volunteers and aid organizations leave.

Highlights of the follow-up discussion included:

- In response to a question regarding resources, Dr. Wright stated that based on his experience; following a disaster situation, politics and attorneys can be a barrier to creating effective partnerships to address environmental justice issues.
- Panelists agreed that, after an environmental justice issue is initially addressed, there are often opportunities to achieve further progress. For example, a community might focus redevelopment around a brownfield site or leverage a potential settlement to achieve better working or environmental conditions. This type of progress can be catalyzed by determining who in a private company or agency has a shared interest or goal and which companies or agencies are agile enough to accomplish environmental justice goals.
- Mr. Rivers and Dr. Wright described how university and college students can apply their academic skills to projects while simultaneously learning about environmental justice issues.

3.0 Dialogue with Mr. Granta Nakayama, AA, EPA OECA

Mr. Nakayama reflected on the importance of the NEJAC. He noted that NEJAC is a unique forum where a variety of stakeholders come together to proactively address concerns and build relationships. Because of the mix of representatives, the NEJAC can assess how well OEJ and EPA, in general, are addressing environmental justice issues. He credited the increased visibility of environmental justice within EPA and beyond to the recommendations and insights provided by the NEJAC.

Mr. Nakayama provided his perspectives on NEJAC's history and future. When he joined EPA OECA over three years ago, OEJ was engaged in building capacity at the community level; however, the office had limited engagement and visibility agency-wide. A lack of resources and interest threatened to eliminate both OEJ and the NEJAC. The unfortunate occurrence of Hurricanes Katrina and Rita brought renewed attention to the issue of environmental justice. Capitalizing on this new interest, the NEJAC drafted a comprehensive set of recommendations; resulting in fundamental changes to EPA's incident command structure. Recognizing the inherent value of such advice, EPA rechartered the NEJAC and the EPA Administrator reaffirmed EPA's commitment to environmental justice.

From an internal perspective, the Administrator's commitment laid the foundation for the integration of environmental justice into EPA's daily activities. Mr. Nakayama commented that EPA lacked the appropriate guidance, education, and tools to integrate environmental justice into the rulemaking and permitting process. As a result, OEJ has developed factors (See Section 7.0 for further information) to assist the Agency in determining if an action may result in a disproportionate burden. To guide enforcement, OEJ, in partnership with OECA, has developed the Environmental Justice Strategic Enforcement Assessment Tool (EJSEAT). This tool, while still draft, will help target inspections and enforcement actions towards environmental justice communities. Noting an additional success, Mr. Nakayama highlighted the environmental justice statements that have been included in EPA's recent tiered rules. These statements describe the potential environmental justice impacts created by the rule. For example, the revised lead standard under the National Ambient Air Quality Standard included a detailed description of the environmental justice impacts, including lead abatement costs.

Mr. Nakayama noted that past and current efforts, including those of the NEJAC, have helped to institutionalize environmental justice. Looking forward, Mr. Nakayama asserted that environmental justice will continue to be important, especially as the Agency addresses emerging challenges such as climate change. He urged the NEJAC members to demand that environmental justice be part of the climate change discussion. It will be critical that the needs of affected, vulnerable populations be considered throughout the decision-making process. Mr. Nakayama added that OEJ will continue to build capacity among stakeholders to address this and other issues. The state cooperative agreement program provides an opportunity for OEJ to fund innovative environmental justice work occurring at the state-level. OEJ hopes to award five cooperative agreements next year.

Mr. Nakayama acknowledged that EPA cannot address environmental justice issues alone and that EPA must reenergize its interagency efforts. There are numerous synergies between EPA's work and the efforts of other Federal agencies. For example, the U.S. Department of Housing and Urban Development (HUD) and EPA jointly enforce lead abatement provisions. Additionally, EPA can work with the U.S. Department of Interior (DOI) to address tribal concerns. In the past, EPA and DOI have collaborated to

remediate tribal schools with multiple environmental violations. It is essential for EPA to leverage their years of environmental justice experience to assist other agencies.

Mr. Nakayama reiterated that the NEJAC's advice and recommendations directly influence the way EPA conducts its operations. He mentioned that the NEJAC is a positive catalyst for change within the Agency. The NEJAC members will need to continue to move EPA forward with respect to environmental justice. He emphasized the NEJAC should build on their past success and capitalize on the current momentum around environmental justice.

Highlights of the follow-up discussion included:

- The members of the NEJAC thanked Mr. Nakayama for his years of leadership with EPA and support of OEJ and the NEJAC.
- Mr. Christian Holmes, Senior Vice President, Program Development, Global Environment and Technology Foundation, indicated that it will be important for the incoming EPA administration to understand and value the insight that the NEJAC provides to the Agency.
- Ms. Catron expressed concern regarding EJSEAT's ability to accurately capture tribal population information since it relies heavily on Census data. She encouraged OEJ and the American Indian Environmental Office (AIEO) to collaboratively address environmental issues on tribal lands; adding that there are numerous synergies between the two offices. For example, AIEO is creating a tool similar to EJSEAT. Mr. Nakayama noted that OECA continues to build a partnership with AIEO. Ms. Carol Jorgenson, Director, AIEO, attends OECA's senior management meetings. Additionally, Mr. Lee meets monthly with her to discuss future opportunities and share perspectives. Mr. Lee also sits on the Indian Program Policy Council, composed of assistant administrators and regional administrators. Additionally, OECA has devoted resources to improve environmental conditions in tribal communities through enforcement as part of the tribal enforcement priority. OECA and OEJ believe that they need to strengthen the programmatic relationship between environmental justice and tribal offices.
- In response to a comment regarding how EPA can assist communities in bringing other Federal agencies such as FHWA or DOT to the table, Mr. Nakayama explained that EPA does not regulate or oversee the activities of other Federal agencies. However, EPA, under the National Environmental Policy Act, has the authority to review and comment on environmental impact statements (EIS). OECA is working to ensure that potential impacts on environmental justice populations are examined and mitigated as part of the EIS.
- Mr. Nakayama noted that it is essential to engage the new leadership early. Conferences such as the State of Environmental Justice in America Conference are a good opportunity to engage leaders from other Federal agency.
- To better inform the incoming Presidential administration, Ms. Salkin suggested that the NEJAC or EPA draft a series of background papers on environmental justice. She added that such papers would raise awareness of NEJAC and EPA's accomplishments. Mr. Nakayama explained that OEJ is currently developing briefing papers to ensure environmental justice is at the forefront throughout the transition process. Mr. Nakayama is encouraged by the NEJAC's progress placing it in a good position for the future.
- Mr. John Ridgway, Manager, Information Management and Communications Section, Washington State Department of Ecology, added that the states are key partners in addressing environmental justice. He encouraged EPA to share resources and technical knowledge in order to mitigate environmental justice issues. He believes that the state cooperative agreements that OEJ has established is a good method for institutionalizing environmental justice at the state level.

4.0 NEJAC Work Group Discussions

Four NEJAC work groups, the Goods Movement Work Group, Nationally Consistent Environmental Justice Screening Approaches Work Group, Green Business, Environmental Justice and Sustainability Work Group, and the State Cooperative Agreement Initiative Work Group presented progress updates.

4.1 Goods Movement Work Group Presentation

The Goods Movement Work Group (GM Work Group), formed in 2007, is charged with providing “advice and recommendations about how the Agency can most effectively promote strategies, in partnership with Federal, state, tribal, and local government agencies, and other stakeholders, to identify, mitigate, and/or prevent the disproportionate burden on communities of air pollution resulting from goods movement.” Goods movement, in the context of the charge, refers to the transportation of goods domestically via truck, ship, plane, or locomotive as well as its associated infrastructure. Goods movement infrastructure consists of roads, ports, airports, rail yards, rail lines, intermodal facilities, border crossings, and distribution centers. Goods movement is a major source of diesel emissions nationwide, accounting for 30 to 50 percent of total air emissions depending on the region. These emissions are concentrated in goods movement hubs often adjacent or within low-income or minority communities. The GM Work Group has been developing draft recommendations that highlight the direct and indirect methods by which EPA can address environmental justice impacts of goods movement and promote a basis for action.

Exhibit 2

GOODS MOVEMENT WORK GROUP

Mr. Shankar Prasad, Co-Chair
Mr. Terry Goff, Co-Chair
 Ms. Margaret Gordon
 Mr. Wayne Grotheer
 Ms. Andrea Hricko
 Ms. Joyce King
 Mr. J. Langdon Marsh
 Mr. Kirk Markwald
 Ms. Cynthia Marvin
 Mr. Gregory Melanson
 Mr. Omega Wilson
 Ms. Victoria Robinson. DFO

In the *Goods Movement Recommendations: Status of the Report* presentation, Mr. Shankar Prasad, Executive Fellow, Coalition for Clean Air, Mr. Marsh and Ms. Robinson provided an update on the progress of the GM Work Group. Over the last few months, the GM Work Group has worked to build consensus around a set of recommendations, including addressing recent events such as the signing of the Marpol Annex 6 treaty, which requires the use of cleaner fuel for ships operating at U.S. ports, a change in EPA’s locomotive and marine rule standards, and comments from the NEJAC. The list of 51 recommendations includes eight focus areas: regulatory and enforcement mechanisms; land use and zoning; research and education on exposure and health effects; community participatory strategies; collaborative governance and problem-solving; environmental performance, planning, and management; technology; and resources and financing. NEJAC members will have an opportunity to provide comments on the draft report during a conference call in early 2009.

The following recommendations were presented during the meeting:

- *Accelerate fleet modernization and deployment of such technology to industry sectors.* Current regulations only target new vehicles, while legacy truck fleets are not required to comply. In order to modernize older trucks, EPA should provide incentives for truck owners to replace their engines. In addition, EPA should provide resources for truck owners to assist in replacing older engines.
- *Develop air quality guidance for future land use that addresses the relationship between land use and air pollution issues.* Although EPA does not have a direct influence over local land use, EPA does provide guidance and model ordinances. Such guidance would help to focus local and state agencies on the connections between land use and air quality.
- *Enforce/implement provisions of the International Maritime Organization Marpol Annex 6 Treaty rules covering cleaner marine diesel fuels and ocean-going ship engine emissions.* Annex 6 of the Marpol 73/78 Treaty went into force in September of 2005 and restricts emissions of SO_x, NO_x, and ozone depleting substances from ocean-going vessels.
- *Identify those facilities that pose a maximum risk from current operations and projected growth.* Emission inventories should be prepared for those facilities that pose the greatest risk. By using these inventories, communities and facilities can better understand the types and quantity of emissions created as well as the risks posed by that pollution.
- *Internalize the cost of mitigation for proposed new or expanded goods movement facilities.* This would involve employing a variety of techniques, including incorporating mitigation strategies in environmental impact statements or providing incentives.
- *Develop model mitigation plans for communities that are at high risk for adverse health effects from goods movement-related air pollution.* EPA, in partnership with states and other organizations, can provide technical resources to assist in the development of such plans.
- *Endorse the recommendations of the Environmental Financial Advisory Board, which call for the establishment of Air Quality Finance Authorities at the state level.* Under these recommendations,

the state Air Quality Finance Authorities would issue bonds to finance the cost of fleet modernization similar to the current state revolving fund for water.

- *Continue funding research on coarse, fine, and ultra-fine particles and other research on the connection between air pollution and health effects, including exposure assessment, epidemiological and toxicological studies, and impact studies on proximity to busy roads and freeways.* Additional research is needed to ensure that best practices are in place. The results from this research would help to identify the most impacted areas.
- *Develop an on-going system for monitoring and reporting progress toward highly localized emission reduction and air quality improvement goals.* Monitoring is extremely important particularly in localized areas, which directly affect a neighborhood or community and where the variations in air quality and the impacts of air pollution are more easily observed.
- *Encourage the development and use of Community Facilitated Strategies to promote accurate evaluation of community boundaries and environmental impacts and related health consequences for the prioritization of solutions.* This would help identify how to provide communities with appropriate resources and knowledge for selecting the best method to identify and implement solutions. Community Facilitated Strategies reinforce the notion that local community organizations must have the capacity to participate in the decision-making process at an equal level as other involved stakeholders.
- *Implement policies and procedures to assure transparency and community stakeholder inclusion in planning, decision-making, and implementing of air, water, and soil pollution mitigation.* Ensuring community involvement at the earliest stages of the process is important. Involvement of the community in the planning and management of solutions produces a sense of ownership and pride. In time, these communities may be able to independently identify environmental justice issues and suggest mitigation solutions.
- *Support, encourage, and, where appropriate, co-fund collaborative governance processes at both regional and community levels.* Collaborative governance is a partnership-based tool that allows stakeholders to collectively address issues in a neutral forum. While collaborative governance is not ideal for all situations, this approach works best when a central, high-ranking elected official serves as the conveyer, who brings all stakeholders into the discussion and ensure that all opinions are equally considered.
- *Ensure that sustainable resources are available to encourage capacity building for community/tribal-based organizations to help facilitate and manage strategies necessary to identify, assess, and promote corrective action.* EPA should support community/tribal-based organizations through trainings, staff involvement, and direct funding.
- *Facilitate state and local initiatives that go beyond Federal requirements to reduce freight emissions and health risks in environmental justice communities.* EPA should provide technical assistance to states as they adopt stricter emissions standards. Additionally, EPA should leverage existing partnerships with good movement facilities to encourage the development of facility-based air quality plans.

The GM Work Group believes that implementation of these recommendations is needed to achieve near-term reductions in diesel emissions, to provide better data to assess risk for those populations living within the most impacted zones and to provide impacted communities with the tools to understand health risks, identify solutions, build capacity, and reduce exposure.

Highlights of the follow-up discussion included:

- Mr. William Harper, Vice President, Strategic Sourcing and Operations Support, Pacific Gas and Electric Company, suggested that the GM Work Group assign a timeline for the implementation of each recommendation. Mr. Prasad suggested categorizing the recommendations into three groups – near-term, short-term, and long-term.
- Responding to Mr. Holmes' request for suggested available technologies, Mr. Marsh noted that the report contains a list of ten technologies that can be used for fleet modernization in the short-term, including selective catalytic reduction and shore power.
- Mr. Paul Mohai, Professor, University of Michigan, School of Natural Resources & Environment, stated that regional air quality monitoring, as used for compliance purposes, is not sufficient to identify local hotspots or examine local conditions. He requested clarification on how the report would

address this issue. Mr. Prasad pointed out that the report calls for community-level monitoring. However, due to resource limitations, monitoring cannot be conducted in every community. Instead, the GM Work Group has suggested that monitoring occur in a representative sample of impacted communities. Monitoring will be conducted in a number of communities adjacent to port facilities or large distribution centers. The GM Work Group hopes that this network of facility-based samples will help to characterize the impacts of various goods movement hubs.

- In response to a request to include an additional section in the report for a dissenting opinion if a consensus regarding the recommendations could not be reached by either the GM Work Group or the NEJAC, Ms. Robinson noted that as a Federal advisory committee, the NEJAC is compelled to provide consensus advice to the EPA Administrator. She suggested two options. If the GM Work Group cannot reach consensus, the report presented to the NEJAC should include a description of the deviating opinions. The NEJAC will be responsible for deciding on its own consensus advice. Her second option was to delete the contested recommendation from the report. Mr. Lee reminded the NEJAC that consensus does not mean total agreement; rather, that the members believe in the principles behind the recommendations and agree to move forward. He recommended that the report include the differing perspectives instead of a dissenting opinion section.
- Ms. Sue Briggum, Vice President, Federal Public Affairs, Waste Management, Inc. suggested that during the NEJAC's conference call EPA provide details on who the GM Work Group consulted to assess feasibility of the proposed recommendations.

4.2 Nationally Consistent Environmental Justice Screening Approach Work Group

Ms. Briggum and Ms. Eileen Gauna, Professor, University of New Mexico, serve as the Co-chairs for the Nationally Consistent Environmental Justice Screening Approaches Work Group (NCEJSA). Mr. Mustafa Ali, Environmental Justice Training Program Manager, EPA OEJ, serves as the DFO for the NCEJSA Work Group. Other members of the NCEJSA Work Group are listed in Exhibit 3.

Ms. Briggum described the NCEJSA Work Group's progress since the June 2008 NEJAC meeting. The NCEJSA Work Group has held biweekly conference calls and held a face-to-face meeting on Monday and Tuesday, October 20 and 21, 2008. The conference calls focused on discussions with the designers of the EJSEAT, which allowed for a better understanding of the general framework and assumptions made in the development of the tool. She mentioned that Mr. Andrew Schulman, Statistician, EPA Office of Compliance, has helped the NCEJSA Work Group understand the mechanics of the model and the data sets used.

During the face-to-face meeting, the NCEJSA Work Group received briefings from EPA Regions 3, 4, and 5 regarding pilot testing of the EJSEAT tool. In addition to regional pilot testing, three members of the NCEJSA Work Group compared the EJSEAT results to existing conditions in Michigan, New York City, and California. Two of the investigations revealed the limitations of the tool to assess the current socioeconomic and health conditions of the evaluated communities. The third study, a comparison of EJSEAT and a California-based environmental justice screening tool, provided comparable results, which leads the group to believe that EJSEAT is a useful assessment tool. The California model and EJSEAT are structured very differently; the California model relies on land use data, while EJSEAT is comprised of facility-specific and air quality data sets.

Based on results of the testing, the NCEJSA Work Group came up with two overarching conclusions:

- EJSEAT can be used as a rough tool to draw attention and resources to environmental justice communities and to target enforcement activities in burdened communities.
- EJSEAT is not a tool to determine how to deploy grant funding equitably, especially at the regional level. Instead, EJSEAT should be part of a suite of tools and approaches used to make such determinations. In these circumstances, the NCEJSA Work Group emphasized that EJSEAT results must be accompanied by community input.

Exhibit 3

NATIONALLY CONSISTENT ENVIRONMENTAL JUSTICE SCREENING APPROACHES WORK GROUP

Ms. Sue Briggum, Co-Chair
Ms. Eileen Gauna, Co-Chair

Mr. Russ Lopez
Ms. Juliana Maantay
Mr. Paul Mohai
Mr. Richard Moore
Mr. Shankar Prasad
Mr. Omega Wilson
Mr. Mustafa Ali, DFO

The NCEJSA Work Group will present specific recommendations on appropriate uses and limitations of the tool. For instance, EJSEAT utilizes health data at the county level rather than at a Census tract level; the latter can more closely approximate environmental justice conditions. The EJSEAT development process has also shown that the environmental data available in the U.S. are not very robust, which will limit the effectiveness of this or any other screening tool. Therefore, NCEJSA Work Group members will draft a grid to guide users as to when and how to appropriately apply the tool. The NCEJSA Work Group is also developing recommendations on which factors should be weighted differently within EJSEAT to truly characterize environmental justice issues.

The NCEJSA Work Group is currently developing a rough draft of these recommendations. Once NCEJSA members have commented on report and recommendations, the report will be presented to the NEJAC during a teleconference. Ms. Briggum suggested a webinar be held in order to introduce the various presentations that helped the NCEJSA Work Group to understand the tool.

Highlights of the follow-up discussion included:

- Mr. Wilson stated that EJSEAT focuses on air impacts; therefore, it does not incorporate data for other environmental media such as water and soil contamination. The tool should be viewed as an umbrella under which future models addressing impacts to other media can be included. Ms. Briggum responded that the tool does include RCRA and toxic release data; however, the most robust set of data relates to air emissions. She added that some communities, using the current iteration of EJSEAT, would not achieve sufficient environmental justice priority if they do not have significant air pollution issues and instead have issues with soil, water, or other types of pollution. Because of this, the NCEJSA Work Group has recommended that the tool be used as part of a deliberative process rather than a determining factor. There are many tools that can be used to characterize environmental justice communities and EJSEAT is only one of them. All available tools need to be used.
- Mr. Mohai suggested that the tool be updated as better, more accurate information and data become available. Ms. Briggum commented that the NCEJSA Work Group has developed recommendations regarding the need for additional data. The NCEJSA Work Group will provide suggestions regarding the priority of future changes to the tool. The NEJAC members noted that it is important to keep stakeholder input in mind when developing recommendations and modifying EJSEAT.
- The NEJAC members requested that the report include an explanation on how EJSEAT works and what data sets were used.
- Mr. Ridgway asked whether external organizations would have access to EJSEAT. Ms. Briggum responded that the data currently included in EJSEAT is publically available. She added that transparency is very important.
- The NEJAC requested additional information regarding the purpose of the tool. Mr. Lee explained that the tool will be employed in conjunction with other tools and approaches. The purpose of the tool is to supplement these existing approaches. EJSEAT was designed to ensure that environmental justice was fully considered in enforcement-related decisions. EPA is not currently looking to use the tool outside of the enforcement context (i.e., permitting).
- With regard to the format of the report, Mr. Lee suggested that NCEJSA Work Group's report articulate a set of principles from which the recommendations stem. In addition, Ms. Robinson suggested that the report be accompanied by an executive summary that outlines the key themes and recommendations.

4.3 Environmental Justice, Green Business, and Sustainability Work Group

The Environmental Justice, Green Business, and Sustainability (Green Business) Work Group is chaired by Mr. Chuck Barlow, Assistant General Counsel, Environmental, Entergy Corporation. Mr. Victor McMahan, Environmental Protection Specialist, EPA OEJ, serves as the DFO. The Green Business Work Group (for member list, see Exhibit 4) was charged with assessing the interest among stakeholders in

Exhibit 4

ENVIRONMENTAL JUSTICE, GREEN BUSINESS, AND SUSTAINABILITY WORK GROUP

Mr. Chuck Barlow, Chair

Mr. Jose Bravo
Ms. Jolene Catron
Mr. William Harper
Mr. Christian Holmes
Mr. Greg Melanson
Mr. John Rosenthal
Ms. Elizabeth Yeampierre
Mr. Victor McMahan, DFO

conducting a conversation about environmental justice and sustainability, as well as in developing key questions to frame the discussion. The Green Business Work Group has submitted a letter to EPA outlining its suggestions on incorporating environmental justice into the sustainability dialogue. OEJ is currently gathering additional supplementary material such as a formal response plan and a question-and-answer sheet to submit with the final recommendations letter. Once the packet is complete, OEJ will submit the letter to EPA Administrator Stephen Johnson.

4.4 State Environmental Justice Cooperative Agreements Work Group

The State Environmental Justice Cooperative Agreements (SEJCA) Work Group is chaired by Mr.

<p>Exhibit 5</p> <p>STATE ENVIRONMENTAL JUSTICE COOPERATIVE AGREEMENTS WORK GROUP</p> <p>Mr. John Ridgway, Chair Ms. M. Kathryn Brown Ms. Jodena Henneke Mr. J. Langdon Marsh Ms. Patricia Salkin Ms. Donele Wilkins</p>

Ridgway and Mr. Benjamin serves as the DFO. The SEJCA Work Group (for member list, see Exhibit 5) is charged with developing a comprehensive set of recommendations on EPA's proposed state environmental justice cooperative agreement program, including the selection and eligibility criteria and types of awarded projects. Mr. Ridgway presented the draft letter and noted that there is a concern about whether such a program would be effective in helping communities fully participate in the decision-making process. Based on this concern, the SEJCA Work Group added provisions to the recommendations, which will ensure that funding will benefit local communities directly. The NEJAC unanimously approved a motion to forward the recommendations letter for signature and submission to EPA.

5.0 EPA Environmental Justice Program: Historical Lessons and Future Directions Presentation

Mr. Lee discussed eight historical lessons learned that were developed as OEJ (formally the Office of Environmental Equity) reflected on 15 years of growth and development.

The eight historic lessons are:

- *Build community capacity:* Building capacity is the bedrock of environmental justice and OEJ has dedicated numerous resources, including funding and staff. Since 1993, EPA has provided more than \$31 million in environmental justice grants to more than 1,100 communities nationwide. In the last three years alone, EPA has awarded \$4.6 million in environmental justice small grants and state cooperative agreements to assist communities as they address environmental justice issues. Projects include training young adults to conduct water testing in Mebane, North Carolina, and restoring wetlands in Cataño, Puerto Rico.
- *Ensure meaningful involvement:* Meaningful involvement of all stakeholders is an inherent part of environmental justice and EPA includes meaningful involvement as part of its definition of environmental justice. EPA has worked to ensure meaningful involvement through multiple avenues including the NEJAC, which includes a diverse group of stakeholders. EPA, under Mr. Nakayama's leadership, has committed to responding to all NEJAC recommendations in writing, which promotes transparency and accountability throughout the Agency.
- *Clarify legal authorities:* Ambiguity regarding EPA's legal authorities to address environmental justice led EPA's Office of General Counsel (OGC) to review the issue. Based on their review, OGC stated in the 2000 *EPA Statutory and Regulatory Authorities Under Which Environmental Justice Issues May Be Addressed in Permitting* that EPA has the legal authority to address environmental justice within the permitting context. In 2001, EPA Administrator Christie Todd Whitman's memorandum directed EPA to consider environmental justice in its rulemaking process.
- *Determine disproportionate environmental and public health impacts:* OEJ has developed a framework of six factors to aid in the identification of disproportionate impacts. These factors are: exposure and proximity to environmental hazards; susceptible populations; unique exposure pathways; cumulative multiple impacts; ability to participate in the decision-making process; and vulnerable physical infrastructure (see Section 7.0 for further information).
- *Foster collaborative problem-solving:* The collaborative problem-solving method works by bringing all

stakeholders, especially the affected community, into the decision-making process. Through this method, stakeholders work as partners to maximize benefits. For example, the ReGenesis Environmental Justice Partnership in Spartanburg, SC, brought together community members, city and county officials, EPA, and industry to remediate and redevelop Arkwright Dump and former International Minerals and Chemicals (IMC) Fertilizer Plant. Additionally, Mr. Harold Mitchell, Founder, ReGenesis Project, leveraged a \$20,000 Environmental Justice Small Grant from EPA to acquire over \$1 million in public and private funding for redevelopment of the 500 acre site.

- *Consistently identifying areas of environmental justice concern:* In the past, EPA has been criticized for its lack of a nationwide metric for determining environmental justice concerns. Under Mr. Nakayama's leadership, EPA is developing internal tools and approaches, particularly EJSEAT to consistently measure environmental justice progress.
- *Integrate environmental justice into core agency planning and budget processes:* Administrator Johnson's 2005 memorandum entitled, *Reaffirming the U.S. Environmental Protection Agency's Commitment to Environmental Justice*, directed all EPA program and regional offices to set targets for eight national environmental justice priority areas in the 2006-2011 EPA strategic plan. The identified priority areas are: reduce asthma attacks; reduce exposure to air toxics; ensure compliance; reduced incidence of elevated blood lead levels; fish and shellfish safe to eat; water safe to drink; revitalization of Brownfields and contaminated sites; and collaborative problem-solving. By integrating environmental justice considerations into EPA's internal processes, the Agency illustrates its continued commitment to addressing environmental justice and helps to build a strong program.
- *Conduct environmental justice program reviews:* In 2004, OIG found that EPA had not fully implemented Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations* (Executive Order 12898). To assess current integration efforts and future opportunities, OEJ developed several environmental justice review protocols. On June 10, 2008, Administrator Johnson issued a memorandum, *Strengthening EPA's Environmental Justice Program*, which directed all EPA program managers to conduct environmental justice program reviews during Fiscal Year 2009.

Mr. Lee stated that the eight historic lessons inform the fundamentals behind EPA's environmental justice program. Based on these lessons, OEJ has redefined its mission to focus on results and accomplishments. OEJ's revised achievement-based mission is: to integrate environmental justice in all programs, policies, and activities to achieve environmental and public health improvements for populations disproportionately burdened by environmental harms and risks, including minority and low-income communities. To further integrate environmental justice into the Agency's daily functions, Mr. Lee described EPA's environmental justice governance and implementation structure. This structure would be headed by a national program manager for environmental justice and consist of staff throughout EPA, including the Environmental Justice Executive Steering Committee, environmental justice coordinators, OEJ, and programmatic media staff. The AA for OECA would serve as the national program manager. NEJAC and stakeholder groups would continue to provide input into the decision-making process.

Focusing on the future direction of the office, Mr. Lee stated that OEJ must begin to show measurable results in terms of improvement in environmental health conditions in disproportionately impacted communities. OEJ is emerging as a science and evidence-based program that includes assessment tools and can quantify benefits. Mr. Lee concluded the presentation by citing four goals that will build the future of OEJ:

- Integrate environmental justice to achieve measurable results in disproportionately burdened communities.
- Build a scientific and legal foundation for evidence-based policy and regulatory development.
- Develop innovative approaches to build healthy and sustainable communities.
- Develop tools and mechanisms to foster national environmental program cohesiveness.

Highlights from the follow-up discussion included:

- Mr. Moore commented that it is critical for EPA to take actions and make decisions with communities and organizations, rather than for them. Many environmental justice communities and organizers have been left out of the debate and dialogue surrounding issues that will affect them such as climate

change. EPA's role is to facilitate the discussion around the needs of the affected community by bring community organizations to the table. One way to bring more grassroots organizations to the table is through grant funding. He encouraged EPA to provide additional funding to community groups to ensure meaningful involvement. In addition, Mr. Moore stated that EPA needs to continue its interagency efforts. Mr. Lee noted that the historic lessons can serve as guideposts for the integration of environmental justice at other Federal agencies. Furthermore, OEJ should be an environmental justice resource to other agencies such as Bureau of Land Management and Bureau of Indian Affairs.

- Ms. Catron reminded the members that systematic change at EPA may occur through a top-down process; however, for community groups, change is driven from the bottom-up. Affected organizations must be brought to the table to fully participate in the process with respect and equal standing.
- Responding to a question about Title VI of the Civil Rights Act, Mr. Lee noted that although it has been interpreted in some ways to address environmental justice, it is narrowly applied to recipients of Federal funding. EPA's Office of Civil Rights (OCR), not OEJ, is responsible for overseeing the statute. Mr. Lee added that OEJ and OCR communicate on a regular basis. Based on the discussion around this issue, the NEJAC requested more interaction with OCR.

6.0 Differential Impacts of Climate Change Panel

A panel of speakers presented varied perspectives on the potential impacts of climate change: Dr. James Sadd, Professor, Occidental College; Ms. Rona Birnbaum, Branch Chief, EPA Office of Air and Radiation, Climate Science & Impacts Branch; Ms. Wynecta Fisher, Director, City of New Orleans, Mayor's Office of Environmental Affairs; Chief Peter Captain, Vice President, Tanana Chiefs Conference; and Mr. Bill Gallegos, Executive Director, Communities for a Better Environment (CBE).

6.1 Dr. James Sadd, Professor, Occidental College

Dr. Sadd provided an overview of the environmental equity impacts of climate change in his presentation, *Environmental Equity Impacts of Climate Change: A Review of the Research*. This research provides empirical evidence that the impacts of climate change will have a disproportionate effect on the quality of life and health of environmental justice populations, an impact that he referred to as climate justice. He continued by saying that climate change will affect the same communities that are historically affected by industrial and environmental hazards.

Reviewing the economic disparities of energy use, Dr. Sadd explained that energy is more costly for lower-income households and people of color, but these populations are responsible for fewer carbon emissions. Using 2004 nationwide household data, researchers found that upper-income households spend more on energy than middle- or low-income households. However as a percentage of annual household income, low-income families spend a larger portion (21 percent versus seven and three percent for middle- and high-income households, respectively) of their limited income on energy expenditures. This same disparity occurs among racial and ethnic groups. In research conducted as part of the 2005 *Latinos and Climate Change Scoping Report* by Redefining Process (2005 study), Hispanic households were found to expend a larger percentage of their total income on energy than non-Hispanic white households in both urban and rural areas. The 2005 study also suggests that households in rural areas spent more on energy than urban households. To examine differences in carbon footprints, the 2005 study compared average emission totals for Hispanic and non-Hispanic households in four geographic regions - Northeast, Midwest, South, and West. This study found that Hispanic households have lower carbon emissions compared to non-Hispanic white households regardless of the geographic region.

Research indicates that African American households like Hispanic families spend a larger part of their income on energy, but maintain a lower carbon emission rate. The 2008 study, *A Climate of Change: African Americans, Global Warming, and a Just Climate Policy in the U.S.* by Mr. J. Andrew Hoerner, Director, Sustainable Economics Program, Redefining Progress, and Ms. Nia Robinson, Director, Environmental Justice and Climate Change Initiative, found that the households in the poorest ten percent of the population are spending a significantly larger share of their income on energy than are

households in the richest ten percent of the population. However, comparing non-African American and African American residents within the poorest ten percent, African Americans spend nearly ten percent more of their income on energy expenditures. African Americans at each decile category contribute fewer carbon emissions than their non-African American counterparts.

The health impacts of climate change are also disparate for example, in heat-related deaths or heat stress caused by heat waves. Dr. Sadd stated that heat waves cause more deaths annually than other natural disasters. For example, the July 2006 California heat wave claimed 140 people; over 125 residents died of heat stroke. Of them, most were socially-isolated elderly residents living in zip codes with high poverty levels (i.e., over 50 percent). Additionally, these residents had limited access to air conditioning. For example, approximately 74 percent of the heat wave victims did not have an air conditioning unit in their home; another 13 percent owned a non-functioning air conditioning unit.

Looking broadly at heat-related mortality in California between 1999 and 2003, Dr. Sadd examined the impacts in terms of age and race of a temperature increase of ten degrees Fahrenheit. With such a temperature increase, mortality would increase among children less than one year of age and among the elderly by approximately five percent and three percent, respectively. In terms of race and ethnicity, the same temperature increase would increase mortality of African Americans by five percent. Whites would experience a mortality increase of approximately half that of African Americans. The change for Hispanics was not statistically significant.

Projecting into the future, Dr. Sadd said that African Americans are expected to suffer disproportionately as temperatures rise. Dr. Sadd presented two air emissions scenarios for Los Angeles - a low-emissions scenario, in which aggressive mitigation and reduction strategies have been implemented and a high-emissions scenario, which represents "business-as-usual." In both scenarios, all racial and ethnic groups experience an increase in heat-related mortality. However, the expected increase in mortality for African Americans is significantly higher than any other racial or ethnic group. In the high-emissions scenario, African American deaths number 50 per 100,000, compared to deaths among Whites of 33 per 100,000 people. Hispanic and Asian residents are expected to have lower heat-related death rates.

Dr. Sadd explained that these health impacts are not related to differences among races and ethnicities, but rather to the symptoms of low socioeconomic status. Dr. Sadd offered three options to minimize our vulnerability to climate change: 1) depend on our physiology to adapt to higher temperatures; 2) modify our behavior in response to climate change, including reducing outdoor activities during heat wave events; and 3) employ technology such as air conditioning. He added that humans have limited control of their physiology; therefore, we must adapt by modifying our behavior and employing technological advances.

Community-level behavior changes are needed to reduce the disproportionate impacts of climate change. The urban heat island effect illustrates the relationship of land use and temperature. Urban areas consist of large amounts of dark impervious surfaces such as asphalt and concrete, which absorb solar energy, resulting in higher ambient temperatures. Dr. Sadd and his colleagues have examined the relationship between impervious surfaces and the socioeconomic status of residents in Los Angeles, San Diego, San Francisco, and Sacramento. They found that areas with the highest amounts of impervious surfaces were the same areas with low homeownership rates, a proxy for wealth. The group also noticed that communities with large minority populations also contained large amounts of impervious surfaces. These results suggest that low-income and minority communities will be disproportionately burdened by higher temperatures caused by the urban heat island effect.

The communities with limited funds to invest in cooling technologies such as air conditioning or fans tend to suffer disproportionately. To illustrate this, Dr. Sadd presented results from four Midwestern cities – Chicago, Detroit, Minneapolis, and Pittsburgh. In each city, heat-related mortality was higher for African American residents compared to their white counterparts. When the access to air conditioning for African American and white residents of the same cities was plotted, the prevalence of air conditioning was significantly higher for white residents. Cities that had large differences in heat-related deaths between the two races also had a significant variation in access to air conditioning. For example, in Minneapolis, the percent change in heat-related mortality was 17 for African Americans and 2.3 for whites.

Approximately 22 percent of African Americans in the city have access to air conditioning compared to approximately 50 percent of white residents. Providing air conditioning data for Los Angeles, Dr. Sadd emphasized the significantly high numbers of low-income, elderly, and minority households that lack access to air conditioning.

As climate change exasperates these vulnerabilities, residents will be forced to move to more hospitable areas. However, poor residents have a limited ability to evacuate or move. Dr. Sadd referred to this as transportation justice. Dr. Sadd pointed to Hurricanes Katrina and Rita as painful reminders of how low-income residents have limited capacity to leave their homes for more suitable conditions. In Los Angeles County, a higher percentage of minority households do not have a personal vehicle. African American households have the highest percentage of households without a car at 20 percent; followed by Hispanics at 17 percent. White households have the lowest percentages of households without a car at approximately nine percent.

With limited capacity to move, low-income and minority residents will be exposed to heat-related events, resulting in negative health impacts. Dr. Sadd explained that there is a strong relationship between access to health care and race and income. A low-income person in California is more likely to be uninsured or on Medi-Cal, a state-run Medicaid program. In fact, approximately 30 percent of persons living at the Federal poverty level are uninsured and another 50 percent are insured through Medi-Cal. In terms of racial and ethnicity differences, persons of Hispanic decent have the highest uninsured rates, followed by American Indians and Alaskan Natives.

In conclusion, Dr. Sadd emphasized that low-income and minority communities will directly benefit from mitigation and measures to reduce greenhouse gas emissions from both mobile and stationary sources. However, some level of adaptation will be necessary regardless of the mitigation strategies employed. Vulnerable populations must be provided with the appropriate resources to adjust to climate change impacts. Additionally, it is crucial as climate change is addressed that the decision-makers understand and consider the disparate impacts on environmental justice communities.

6.2 Ms. Rona Birnbaum, Branch Chief, EPA Office of Air and Radiation, Climate Science & Impacts Branch

In her presentation, *Environmental Justice and Climate Change*, Ms. Rona Birnbaum, Branch Chief, EPA Office of Air and Radiation, Climate Science & Impacts Branch, provided an update on the state of climate change science and current mitigation and adaption efforts being employed by EPA and other Federal agencies. Citing key findings from the Intergovernmental Panel on Climate Change (IPCC), Ms. Birnbaum stated that current climate change is evident in the widespread melting of glaciers, global rises in average sea level, and increases in global temperatures. The IPCC concluded that most of the observed temperature increases are likely attributable to anthropogenic emissions of greenhouse gases and a range of stabilization levels are possible by deploying existing and future technology.

Ms. Birnbaum outlined the anticipated impacts of climate change, including continued sea level rise and variations in temperatures and precipitation patterns. She noted that these impacts would have widespread effects on numerous sectors, including public health, ecosystems, water resources, agriculture, and forestry. For example, the IPCC predicts that the agricultural sector would have lower yields as precipitation patterns change and that within the public health sector, there would be an increase in death and disease due to heat waves, floods, and storms and an increase in the frequency of cardio-respiratory diseases as a result of higher troposphere ozone concentrations. Vulnerable populations will be disproportionately impacted from the effects of climate change. The U.S. Climate Change Science Program (CCSP) has found that socioeconomic factors such as income, race, education level, gender, housing, and susceptibility to illness will play a critical role in altering the vulnerability and sensitivity to environmental changes. According to the IPCC, poor

Exhibit 6
MITIGATION VERSUS ADAPTATION
Mitigation of climate change would entail reducing greenhouse gas emissions to prevent climate change.
Adaptation is defined by the IPCC as an adjustment in natural or human systems in response to actual or expected climatic stimuli or their effects, which moderates harm or exploits beneficial opportunities.

communities are particularly vulnerable to climate change due to their limited adaptability capacities and dependence on climate-sensitive resources.

Ms. Birnbaum stated that there is a need for a combination of mitigation and adaptation methods (see Exhibit 6 for further information). EPA is using this two-pronged strategy to address climate change. EPA has developed voluntary programs that go beyond existing regulations that provide mitigation opportunities in several sectors. For example, the SmartWaySM Transit Partnership provides low-interest loans for trucking operations to reduce overall fleet emissions. The ENERGY STAR program identifies energy-efficient household items such as lights, computers, and washing machines that met strict energy efficiency guidelines. EPA is also engaged in several regulatory initiatives that will reduce air emissions, including the proposed mandatory greenhouse gas reporting rule and geologic sequestration of carbon dioxide. As a result of the extended authorities granted to EPA under the Energy Independence and Security Act, the Office of Transportation and Air Quality is developing a rule regarding renewable fuels. EPA offices have also been asked to review various legislative bills from Congress in terms of their ability to address climate change or its impacts.

There is general consensus that human society will have to adapt, both proactively and retroactively, to the impacts of climate change. There are challenges in respect to analyzing the scale of adaptive responses due to uncertainty in timing and scale of impacts and difficulty measuring benefits of existing mitigation programs. Ms. Birnbaum explained that adaptation is necessary because the IPCC calculated that even if all greenhouse gas emissions ceased today, global temperature would rise by nearly two degrees Fahrenheit. As a result, EPA has begun integrating adaptation considerations into economic and policy analysis through programs such as the Climate Ready Estuaries and publications such as Excessive Heat Events Guidebook (Guidebook). The Guidebook provides public health officials with response action guidelines and educational material to minimize the impacts of heat events. According to the IPCC, the incidence, duration, and severity of excessive heat events are expected to increase as a result of climate change. The most vulnerable populations are older adults and young children as well as urban environmental justice communities.

Ms. Birnbaum explained that as EPA and other agencies move forward, they will have to respond to several key questions, including:

- What is the optimal portfolio of mitigation and adaptation measures?
- How do we best communicate the need for action now in spite of continuing local uncertainties?
- What are the primary environmental justice concerns?
- Are there opportunities to tap into research efforts and climate data services?
- What are the opportunities for ensuring a dialogue as national policy evolves?

Ms. Birnbaum emphasized that the climate change challenge presents opportunities for collaboration. She suggested that telling the national climate change story from a variety of perspectives will increase collaboration efforts. Additionally, it is important for organizations to share analytical tools and communicate results and best practices. Ms. Birnbaum stated that there are a multitude of avenues for collaboration between EPA and environmental justice communities.

6.3 Chief Peter Captain, Sr., Senior Vice President, Tanana Chiefs Conference

Chief Peter Captain, Sr., Senior Vice President, Tanana Chiefs Conference, stated that the effects of pollution and climate change on the ingenious people of Alaska are dramatic. Tribal elders have been concerned for sometime about the environmental changes that are occurring. Changes include the melting ice and permafrost, the westward movement of boreal forests, and the arrival of non-native predators such as cougars, which are currently impacting the way of life for the Alaskan natives. There are also issues related to the underdeveloped infrastructure in tribal regions of Alaska (i.e. transportation routes and utilities). A lack of a reliable transportation infrastructure means that most goods are transported to the tribal regions via airplanes, except in the limited summer months when barge transportation is feasible. Due to the expense of air shipments, goods are extremely expensive for tribal members. For example, a gallon of gas can cost up to \$15, a gallon of milk can cost over \$10, and electricity costs \$1.20 per kilowatt. The high cost of essential goods compounded by the lack of available state funding, is a financial burden for tribal communities. As a result, tribes rely heavily on traditional

foods such as salmon and wild game, for the bulk of their dietary needs. However, these sources are being threatened by climate change.

Chief Captain presented a video, *Yukon Circles*, which follows the progress made by the Yukon River Inter-tribal Watershed Council (YRITWC) to raise awareness of the environmental impacts of pollutants on the Yukon River (the River), a 2,300 mile river that runs from the mountains of the Yukon Territory in Canada west through Alaska and empties into the Bering Strait. In 1997, over 50 tribal groups from Alaska and Canada gathered in Galena, Alaska, at the first Yukon River Inter-tribal Watershed Protection Summit, a three-day meeting to discuss the impacts of pollution and remediation options for the Yukon River. Tribal leaders relayed stories of how pollution from military activities, mining, and landfills on and near tribal lands has severely deteriorated the river. Leaders explained that fish and other wildlife, which the tribes subsist on, have developed physical deformities and mutations. Based on the discussions, the leaders decided to develop a steering committee to oversee and coordinate the cleanup activities along the River. Over the next year, the committee developed guiding principles and worked with state and local officials to build local capacity.

By 2001, after several other summits, the tribal members outlined a binding agreement, the Accord, to collaboratively address contamination in the Yukon River watershed. The Accord formally establishes the YRITWC, which had operated since 1997 as an ad hoc group. Tribal members agreed to meet every two years to discuss progress and develop new activities and initiatives. Signatories of the Accord pledge to develop environmental education programs and build awareness of the pressing environmental issues among their communities. The Accord also emphasizes the need for an open exchange of ideas among YRITWC members. To date, over 60 tribes have signed the Accord. Since the signing of the Accord, the tribal members have begun working with EPA and the U.S. Geological Survey to test water throughout the Yukon River watershed as well as map potential pollution sources. Despite scientific evidence that the River contains harmful contaminants, the YRITWC has developed a 50-year vision – to safely drink directly from the Yukon River.

6.4 Ms. Wynecta Fisher, Director, City of New Orleans, Mayor's Office of Environmental Affairs

Ms. Wynecta Fisher, Director, City of New Orleans, Mayor's Office of Environmental Affairs, discussed the impacts of wetland loss and hypoxia on Louisiana's coastal communities in her presentation, *Wetland Loss and EJ Communities: A New Paradigm of the Movement*. She explained that as global temperatures warm, there will be a rise in sea levels and an increase in violent storms resulting in an increased threat to the people living in these low-lying communities. She also described climate change impacts in Grand Coin Pocket and Plaquemines Parish, which lost 80 square miles of wetlands after Hurricanes Katrina and Rita alone. She explained that Grand Coin Pocket's marshes and wetlands, which divide Lake Pontchartrain and the Gulf of Mexico, are important to the protection of New Orleans since they absorb storm surges. Higher average sea level will displace residents living along the wetlands forcing them inland and migration away from the shoreline will create an influx of new residents that could strain local services. However, these areas do not receive media exposure or assistance to help them adapt or mitigate the impacts.

Hypoxia, or oxygen depletion, in aquatic environments has resulted in dead zones along coastal areas of the Mississippi Delta. The dead zones, caused by agricultural runoff and nutrient loading, will expand as fertilizer-intense agriculture in the Midwest continues. As a result, residents, who depend on the once plentiful fish for food as well as their livelihoods, will be left with limited options for survival. She added that Orleans Parish, just south of New Orleans, has a \$43 million commercial fishing industry that employed approximately 400 people before Hurricane Katrina. Climate change and hypoxia threaten to destroy this industry.

The increase in storms such as Hurricanes Katrina and Rita has made it difficult for commercial fisherman to obtain insurance for their equipment. In some cases, insurance has become cost-prohibitive. Small independent fishing businesses decide to forgo insurance leaving them vulnerable. Another consequence of a more intense storm season is the cost of debris removal. Ms. Fisher explained that, after Hurricane Katrina, despite riding out and surviving the storm, many of citizens could not get back to their livelihoods because debris was never cleared from the waterways.

To illustrate the impacts of climate change on environmental justice communities, Ms. Fisher described the Atakapa Tribe, a shrimping and fishing community from Grand Bayou, Louisiana, with a long history in the area, including tribal burial mounds dating back to 1,000 AD. This indigenous community of approximately 50 families does not have Federal tribal recognition nor do they receive Federal levee protection or funding. As a result, poorly maintained private levees are the community's only defense against flooding. Residents are adapting by raising their houses or building houseboats. She noted that for centuries, the tribal community would ride out Gulf Coast storms by tying their boats together and anchoring on the leeward side of barrier islands. As a result, the community has survived storms with no loss of life and minimal damage to their boats. Climate change has led to the erosion of these protective islands; leaving the community to flee inland during storms. Ms. Fisher stated that monetizing the value of life, culture, and land in these types of areas is the only way to bring attention to communities like Atakapa. She added that by quantifying the value of communities, which makes the community's story relevant, decision-makers can better understand the need to protect and save these areas. She encouraged EPA and the NEJAC to listening to the communities' needs and create tools to assist them.

6.5 Mr. Bill Gallegos, Executive Director, Communities for a Better Environment

Mr. Bill Gallegos, Executive Director, Communities for a Better Environment (CBE), discussed the importance of looking at the broader dimensions of social justice, stating that there are no quick fixes for the disproportionate impacts of climate change. For example, he stated that providing low-income families with air conditioning units during heat waves will not solve the issue in the long-term; rather, the types of homes people reside in as well as their access to healthcare need to be examined. He noted that many low-income communities do not possess the resources to move; however, the general public does not understand this situation. As such, systematic changes in the approach to climate change are needed to help environmental justice communities adapt. Mr. Gallegos stated that the increased exploration and expansion of fossil fuel usage are negative trends that will exasperate climate change-related impacts. Furthermore, the increased interest in nuclear power would have disproportionate impacts on environmental justice communities since most of the waste is stored in low-income and minority neighborhoods.

To address impacts of climate change, Mr. Gallegos indicated that there is a need for a national campaign to educate the public about the effects of climate change on environment justice communities and the urgency for immediate action. He recommended utilizing resources and engaging people within environmental justice communities to develop solutions that will directly and effectively help them. For example, innovative solutions such as the Louisiana residents who tie their boats together to weather storms would not come from academics or think tanks rather from those who are directly affected. It is important that scientists and academics look for solutions from the affected populations. In order to ensure public-based, multi-dimensional solutions, he suggested incorporating public oversight into the process and developing youth committees and citizen committees.

He also emphasized the importance of adopting the principle of "do no more harm" in order to avoid adopting solutions that exacerbate problems. For example, he stated that pollution trading schemes have resulted in the creation of pollution hot spots in environmental justice communities. Under the trading systems, facilities that find it cost-prohibitive to install environmentally-friendly technology can purchase offsets and therefore eliminate the need to reduce their pollution. According to Mr. Gallegos, environmental justice communities bear the burden of the facility's decision.

Highlights from the follow-up discussion included:

- In response to a request to further discuss the current impacts that communities are facing as a result of climate change, Chief Captain stated that Alaska has begun to see cougars and sturgeon, which are typically found in areas with warmer weather. Additionally, wildfires are becoming more prominent. Several villages along the Bering Sea have also experienced severe erosion and are slowly falling into the sea.
- Ms. Catron stated that the Indigenous Waters Network (the Network) is founded on the concept that water needs to be respected. The Network has brought together numerous tribal organizations to share knowledge and resources to address water contamination. The organization is a good example of community-driven problem-solving where affected residents are collaborating to develop effective

solutions.

- Due to the unique challenges facing Alaskan Natives, the NEJAC members requested that an Alaskan Native tribal representative be added to the NEJAC.
- Mr. Holmes commented that it is important to make sure environmental justice communities fully understand the existing regulatory, statutory, and political levers at their disposal; identify who can utilize these levers to address environmental justice issues; and determine whether additional data can really solve their problems. He stated that stories about the impacts of climate change are more powerful and more important than data.
- Mr. Prasad commented that any near-term action or analysis should take into account adaptation due to climate change.
- Ms. Fisher noted that health insurance and national health care are important issues that play into the climate change arena. Climate change exacerbates the spread of infectious diseases, which will disproportionately affect environmental justice communities. Many in these communities are uninsured and do not have access to the appropriate medical care.
- In response to an inquiry about best practices, members of the panel provided the following comments:
 - Ms. Fisher noted that communities need to monetize their quality of life and culture; doing so would make the impacts more tangible for those who are not specifically affected. However, as Mr. Gallegos pointed out, care should be taken to continue to humanize and respect cultures, without reducing them to mere numbers or dollar amounts. His approach focuses on the one human family to which we all belong and focuses on the similarities across groups. It is important to create a counter-narrative to the current description that is in place in America, which centers on individuality. He added that art, music, and film are effective methods for spreading the environmental justice message.
 - Dr. Sadd stated that utilizing an incremental approach is very important, as not to overwhelm organizers and supporters with the sheer size of the climate change problem. A first step to this approach is to utilize the NEJAC 2008 recommendations document and measure progress according to its points. He added that efforts must be made to measure and document progress and best practices.
 - Ms. Birnbaum encouraged the NEJAC to look at multiple solutions because the climate change issue is not a “one-size-fits-all” problem. Each community has unique circumstances and capacities. Solutions must capitalize on each community’s strengths.
 - Chief Captain explained that spirituality can bring together indigenous peoples and other environmental justice communities to address environmental issues. He also noted that collaboration among tribal organizations, EPA, and the State of Alaska resulted in the relocation of a polluting dump.

7.0 Factors to Identify and Assess Disproportionate Environmental Justice Impacts Discussion

In the presentation, *Environmental Justice: Disproportionate Impacts - Factors to Consider When Conducting EJ Analysis*, Mr. Lee, Mr. Ali, and Dr. Michael Callahan, Michael D. Baker, Inc., summarized the six factors (see Exhibit 7) to identify and evaluate disproportionate burdens on low-income and minority communities. The purpose behind the development of these factors is to create a sound scientific and legal framework, which will encourage a universal understanding of environmental justice. OEJ hopes to use this empirical foundation to promote the integration of environmental justice considerations in the rulemaking process. To ensure meaningful involvement and access to the decision-making process, Mr. Lee emphasized the importance of transparency as these draft factors are developed further. He added that he hoped that this presentation would spur a lively discussion among the NEJAC members, resulting in additional ideas and feedback.

Exhibit 7
SIX FACTORS OF DISPROPORTIONATE IMPACTS
<ul style="list-style-type: none"> • Proximity and exposure to environmental hazards • Susceptible populations • Unique exposure pathways; • Multiple and cumulative effects • Ability to participate in the decision-making process • Vulnerable physical infrastructure

Executive Order 12898 stipulates that “to the greatest extent practicable and permitted by law...each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations.” This requirement led to questions regarding how to define and determine disproportionately high and adverse impacts. To address these concerns, OEJ developed these factors to illustrate potential circumstances in which minority or low-income communities may be exposed disproportionately to environmental and human health risks.

The first factor is proximity and exposure to environmental hazards, which is defined as an increasingly high number of harmful or undesirable sites, emissions, or impacts borne by one particular community. Over 100 studies have found that minority and low-income communities are disproportionately located near environmental hazards. For example, a study of the Toxic Release Inventory (TRI) facilities in the San Francisco Bay area found that approximately two-thirds of the population living within a mile of the facilities were low-income or minority. Another study by Dr. Sadd and others found that concentrated animal feeding operations were 20 times more prevalent in low-income neighborhoods than in more affluent areas.

Susceptible populations are those communities that exhibit more health impacts despite a similar exposure level to other communities. There are several reasons why affected populations may become more susceptible to harmful environmental conditions: a variation in their dose-response curve; an inherent susceptibility due to life stage such as childhood, old age, or pregnancy; or an acquired biological vulnerability such as a pre-existing medical condition, chemical sensitivity, or poor nutrition. For example, a 2003 study by the Columbia School of Public Health found that African American women exposed to auto exhaust, cigarette smoke, and incinerators during their third trimester tended to have babies with smaller head circumferences, which has been linked to lower cognitive abilities.

The unique exposure pathways factor is defined as an increased negative exposure due to cultural or individual practices. Examples of unique exposure pathways include the ritualistic use of mercury, subsistence fishing or hunting in contaminated areas, use of lead-containing dishes or make-up, or consuming or inhaling lead paint chips. In 1988, the Agency for Toxic Substance and Disease Registry (ATSDR) found that elevated blood lead levels were disproportionate across race and income groups. Dr. Jane Hightower, Department of Internal Medicine, California Pacific Medical Center; Dr. Ann O'Hare, Department of Medicine, Veteran's Administration and University of California San Francisco; and Dr. German Hernandez, Department of Medicine, University of California San Francisco and San Francisco General Hospital, found that women of Asian, Pacific Islander, or Native American descent had a higher prevalence of elevated blood mercury levels. The study attributed the high mercury levels to fish consumption.

Multiple and cumulative effects occur when one community is exposed to several pollution sources, all of which negatively impact the well-being of the community. Examples include the Mississippi River Corridor in Louisiana, which is dotted with petrochemical facilities, port infrastructure, and refineries; the South Bronx in New York City, which is home to several waste treatment facilities and sewage processing plants; and Chester, Pennsylvania, which contains a medical waste treatment center, a solid waste incinerator, and a sewage treatment facility. Mr. Lee noted that EJSEAT attempts to quantify the cumulative impacts on a specific community.

The ability to participate in the decision-making process is often hindered by a lack of access to information, a lack of representation, or linguistic or cultural barriers. This factor is inherent in EPA's definition of environmental justice. A 2001 study by Dr. Sadd and his colleagues found a correlation between periods of community demographic shifts and the introduction of noxious land uses. An earlier study by Dr. James Hamilton, Professor, Duke University, found that the percentage of registered voters in a community was a strong indicator for predicting hazardous waste facility expansion (i.e., communities with a low percentage of registered voters were more likely to have an expansion of a hazardous waste facility in their neighborhood).

The presence of vulnerable physical infrastructure, including substandard housing and school buildings, vacant lots, and vulnerable ecosystems such as contaminated fishing or hunting grounds lessens a community's ability to cope with environmental and health stressors. Additionally, abandoned or poorly maintained infrastructure leads to further disenfranchisement and disinvestment among residents. For example, a recent New York University study of South Bronx school children linked exposure to truck exhaust to high incidences of asthma. In another example, the impacts of near-road exposure from diesel emissions prompted California to enact a law requiring a buffer between schools and highways. In addition, the President's Task Force on Environmental Health Risks and Safety Risks to Children found that substandard housing was associated with lead poisoning, asthma, and developmental problems. Due to the potential damaging effects of building schools located near contaminated sites, the Center for Health, Environment, and Justice, an environmental non-profit organization, is calling attention to this significant national problem.

Moving forward, Mr. Lee noted that OEJ is looking to commission a set of white papers focusing on the six factors. The papers will include a literature review to compile existing research. Additionally, OEJ is working with other EPA offices to develop a symposium around environmental justice issues, particularly disproportionate impacts, in the decision-making process. The goals of the symposium are to develop a research agenda based on gaps in existing research and to build a network of environmental justice practitioners. The factors are also being incorporated into the rulemaking process to minimize environmental justice issues. These efforts will systematically build a scientific foundation for evidence-based policy and regulatory development.

Highlights from the follow-up discussion included:

- Dr. Callahan stated that disproportionate impacts occur in two circumstances - when a community shoulders a larger portion of harmful or undesirable impacts and when two communities have the same exposure, but one community experiences greater health effects.
- Mr. Wilson stated that his organization, the West End Revitalization Association, sent a letter to the U.S. Department of Justice (DOJ) regarding DOT's decision to site a highway through their African American neighborhood. DOJ responded by providing a list of other Federal agencies that address environmental justice concerns. Based on this experience, Mr. Wilson stated that all Federal agencies need to understand and integrate environmental justice into their missions rather than rerouting concerns to other agencies. Mr. Ali agreed; adding that a holistic approach (i.e., inclusion of all Federal agencies) will help to address environmental injustices effectively.
- Mr. Holmes inquired about the available funding for future updates and changes to existing tools such as EJSEAT or the development of new tools based on the six factors. Mr. Lee responded that OEJ is currently focused on developing an inventory of existing research. Based on the existing literature, OEJ will assess potential research gaps.
- In response to concern over the vagueness of the phrase "as appropriate" used in the Executive Order 12898 when describing a Federal agency's responsibility to address environmental injustices in minority and low-income populations. Mr. Lee clarified that the phrase "as appropriate" refers to activities within the authorities granted under existing environmental statutes. Mr. Lee acknowledged that additional work must be completed to clarify legal authorities relating to environmental justice issues.
- Ms. Briggum expressed concern over the definition of exposure. She added that only the regulated facilities, a small percentage of all facilities, are being examined for impacts. Under the current EJSEAT methodology, all of the other polluting facilities would be ignored and therefore, missed. She emphasized that it is critical to gather data on the unregulated facilities to develop a true understanding of impacts.
- Mr. Marsh suggested that OEJ add additional cross-cutting factors to the current list, specifically different diagnosis and response. For example, some affected persons may not be provided with accurate health information or a good diagnosis; leading the condition to worsen. Mr. Lee responded that this comment relates to vulnerability, which can be calculated using the cumulative risk framework. Dr. Callahan added that the white papers will address vulnerability. Mr. Ali reminded the NEJAC that many persons, especially members of the environmental justice community, are not insured or are under-insured and may not have access to a doctor; contributing to a higher vulnerability.

- Mr. Rosenthal asked if the inability to access actual decision-makers rather than the process of decision-making was considered in the development of the six factors or addressed in the white papers. Mr. Lee responded that the inability to communicate directly with decision-makers will be addressed in the white papers to the extent that data and research exists.
- Mr. Barlow and Ms. Briggum reminded the members that information from TRI is not fine-tuned. Only 15 percent of emissions are captured in TRI due to the narrow scope of regulated chemicals and large poundage thresholds.

8.0 Closing Statements and Next Steps

In response to comments made about publicizing NEJAC's successes via podcasts, journal articles, and other means, Ms. Robinson described EPA's current effort to identify and analyze the impacts of NEJAC's recommendations over its 15-year history. EPA will produce a draft report of this analysis in time for the 15th anniversary NEJAC meeting in May 2009. The report will feature NEJAC's greatest success stories.

Highlights of the follow-up discussion included:

- Several members commented that the report will be an excellent way to show that NEJAC is money well spent.
- There is a broad range of organizations that can support NEJAC's work, including local government associations and councils of mayors, cities, and counties.
- NEJAC should hold a conference call to discuss its accomplishments and gather all of the information and feedback that each NEJAC member has received over the years.
- Podcasts of NEJAC meetings are an opportunity to inform and engage colleges, universities, libraries, and government officials about environmental justice. Podcasts present an opportunity for growth and development in an informal setting.

Ms. Robinson detailed the following next steps for the NEJAC:

- Up to two public conference calls are targeted to take place before May 2009. Each call will focus on a different report (e.g., the reports of the NCEJSA Work Group report and the Goods Movement Work Group).
- The next NEJAC meeting is tentatively scheduled for May 2009 in Washington, DC, at which the NEJAC will commemorate its 15th anniversary.

Mr. Lee closed by commenting on planning for the transition of administration at EPA, outlining three issues that are most important to the NEJAC:

- Efforts involving goods movement, state cooperative agreements, and green business will all generate interest from the new EPA administrator.
- In terms of timing, it will take a year for the full implications of the transition to become evident.
- There should be proactive efforts to educate EPA's new senior management about environmental justice, including invitations for new regional administrators and assistant administrators to visit environmental justice communities so they can see and understand the issues directly.

Chapter 2

Summary of Public Comment Period

1.0 Introduction

The National Environmental Justice Advisory Council (NEJAC) conducted one public comment period on October 22, 2008. The public comment period provides an opportunity for stakeholders to present environmental justice issues directly to the NEJAC. Additionally, the NEJAC can provide immediate feedback on the commenter's concerns. This chapter summarizes the testimony that the NEJAC received during the public comment period, as well as the NEJAC's discussion in response to the commenters' testimony.

2.0 Public Comment Period Held on October 22, 2008

During the public comment period, 15 oral statements were offered. Comments are summarized in the order in which they were offered. One written comment was read into the record during the session.

2.1 Dr. Sacoby Wilson, Professor, University of South Carolina

Dr. Sacoby Wilson, Professor, University of South Carolina, stated that environmental justice now includes not only environmental impacts, but also access to basic services and infrastructure. He added that it is important that community groups receive funding and resources to address these issues. Dr. S. Wilson described his work with Mr. Omega Wilson, President, West End Revitalization Association, addressing the lack of sewer and water infrastructure in historical African American communities of Mebane, North Carolina. He stated that it is important for the U.S. Environmental Protection Agency (EPA) and National Institutes for Health (NIH) to partner together to fund more community-owned and -managed research (COMR) that focuses on compliance and accountability for businesses, academia, and communities. He asserted that much of the current academic research perpetuates scientific racism and classism. Dr. S. Wilson described COMR as an antidote to this problem because it establishes knowledge centers within affected communities, thereby empowering citizens to address environmental justice issues. Dr. S. Wilson explained how the Title VI of the Civil Rights Act can be used in a legal epidemiology approach to understand the Department of Transportation's (DOT's) and other Federal entities' lack of compliance with environmental laws and statutes. He explained that millions of dollars have been given to institutions to research environmental health disparities, environmental justice, and other kinds of public health issues; however, no action has resulted from the research. Dr. S. Wilson said that COMR will address this issue by providing contextual expertise from community residents, ensuring that research leads to action in the studied communities.

In response to a question from Ms. Donele Wilkins, Executive Director, Detroiters Working for Environmental Justice, Dr. S. Wilson clarified that Title VI addresses discrimination in Federal funding and thus should be a useful tool to address accountability for Federally-funded environmental justice research and the development of solutions-oriented research based on community needs. He added that many environmental justice communities know and understand their issues because of previous studies; however, the residents need to be trained, using the research funding, to resolve the issues plaguing their neighborhoods.

2.2 Ms. Alberta Hasten, President, Louisiana Environmental Justice Community Organization Coalition

Ms. Alberta Hasten, President, Louisiana Environmental Justice Community Organization Coalition (LEJCOC), introduced her organization, LEJCOC, which is a statewide group formed to support and address the needs of environmental justice communities in Louisiana. Ms. Hasten discussed the environmental issues in Louisiana communities, including pollution, emergency preparedness as it relates to hurricane season, and environmental health and housing problems related to water, air, and soil pollution. Ms. Hasten described how LEJCOC uses alternate dispute resolution (ADR) and community-based participatory research (CBPR) as the primary tools in negotiating with industry and environmental agencies to reduce and eliminate environmental health hazards. ADR provides a neutral third party to

mediate discussions and promote collaboration to address issues. The ADR process has empowered Louisiana residents to address the issues facing their communities. As a result of the ADR training, LEJCOC outlined a list of concerns and developed a better understanding for the rules of public participation and environmental regulations. Throughout the entire process, Ms. Hasten said that LEJCOC operated according to three R's: *respect* each other and others' points of view; *responsibility* to know when we are wrong and to stand for what is right; and *resourcefulness* to build capacity by finding and sharing resources. Ms. Hasten stated that LEJCOC would like to continue to learn more about environmental laws so residents can solve problems independently.

Following her presentation, Ms. Hasten responded to the NEJAC's questions:

- In response to a question about whether Hurricanes Katrina and Rita incentivized governments to address historical and ongoing issues of concern to LEJCOC, Ms. Hasten said that, through ADR, there has been some progress. She added that Hurricanes Katrina and Rita helped LEJCOC develop partnerships with industry such as Shintech. The organizations are collaborating to urge the local and state government to address concerns.
- Ms. Jolene Catron, Executive Director, Wind River Alliance, commented on the importance of the ADR training. She added that the ADR training conducted on Navajo lands was tailored to incorporate cultural values and spirituality. Ms. Hasten agreed and emphasized that more funding is needed to continue the ADR training.
- Ms. Hasten responded to a question from Mr. Christian Holmes, Senior Vice President, Program Development, Global Environment and Technology Foundation, by explaining that, if given the chance for follow-up funding, LEJCOC would use the funding for cleanup efforts in the community.
- In response to Ms. Wilkin's question regarding LEJOC's greatest accomplishment, Ms. Hasten noted that establishing partnerships with industry and government has built trust and increased communication; leading to better results.

2.3 Ms. Sharon Batiste, Member, Alsen Environmental Justice Community Organization

Ms. Sharon Batiste, Member, Alsen Environmental Justice Community Organization, spoke of attending an ADR workshop and described how capacity building and partnerships grew out of that experience. She added that the training is truly a dynamic first step in addressing environmental justice in her community of Alsen, Louisiana. Ms. Batiste spoke to the power of knowledge, education, and incorporation of grassroots input in decision-making. Ms. Batiste commended Louisiana Land Acquisition, LLC. (LLA) for being the first business in East Baton Rouge Parish to fully engage the community and listen to their concerns. Her community is surrounded by approximately 20 industrial sites and several landfills. When LLA moved into the community, they brought the community to the table to discuss concerns and solutions in an open forum. She asked that EPA continue the ADR training to help residents who live near industry to be aware of environmental health hazards in their neighborhoods.

2.4 Mr. John Seago, Attorney, Louisiana Land Acquisition, LLC

Mr. John Seago, Attorney, LLA, described LLA's process to acquire land, obtain an industrial waste permit, and open a landfill in Alsen, Louisiana. He described Alsen and Baton Rouge as being highly industrialized areas with petrochemical plants and more Superfund sites than most states, adding that Alsen is about 3 miles from one of the worst Superfund sites in the U.S. Mr. Seago described how he sought out a diverse group of leaders from all aspects of the community, including Ms. Batiste and elected officials, to have a dialogue about the landfill permit and its potential effects on the community. Through this dialogue, LLA proactively addressed the community's concerns about pollution, safe jobs, and corporate responsibility. According to Mr. Seago, current environmental justice requirements on industry are not strong enough and all industry should be required to perform additional activities to ensure their facilities and operations are environmentally sound.

Following his presentation, Mr. Seago responded to the NEJAC's questions:

- Responding to a request from Mr. John Rosenthal, President, National Small Town Alliance, to describe the benefits the company has brought to the community, Mr. Seago noted that LLA agreed to give 50 cents to the community for every ton, which over the life of the landfill, would equate to about \$1,800,000. He added that LLA agreed to spend \$50,000 a year for an after-school tutorial

program, \$20,000 each year for a summer educational program, and \$60,000 a year for a senior food program.

- Mr. Omega Wilson, President, West End Revitalization Association, asked if formal environmental justice instruction in law schools would have helped Mr. Seago and if he thought it could help other attorneys address these types of issues in the future. Mr. Seago responded affirmatively. He encouraged lawyers to get involved in environmental law.

2.5 Ms. Sheila Collins, Resident, Assumption Parish, Louisiana

Ms. Sheila Collins, Resident, Assumption Parish, Louisiana, read a letter from the concerned citizens of Assumption Parish and members of the LEJCOC, stating that sediments from Hurricanes Katrina, Rita, Gustav, and Ike have polluted Bayou Lafourche with arsenic, lead, chloroform, bacteria, mold, and salmonella. The letter stated that the pollution has caused serious health issues such as respiratory illnesses, asthma, allergic reactions, eye irritation, skin rashes, and sores that do not respond to normal treatment, as well as nausea, vomiting, and gastrointestinal irritations. In addition, long-term health impacts have included increases in miscarriages, infertility, lung disease, fetal malformation and other birth defects, cancer, and respiratory illnesses. The letter requested further research and funding to investigate and remediate contamination in Bayou Lafourche, from which approximately 300,000 residents get their drinking water.

Following her presentation, Ms. Collins responded to the NEJAC's questions:

- In response to a question from Ms. Wilkins, Ms. Collins described how, as a first responder, she witnessed the deterioration of surrounding land and living conditions as a result of the recent hurricanes. Ms. Collins said that the response from local agencies has been slow; however, her organization is working with LEJCOC to draft letters and develop remediation plans.
- Mr. Chuck Barlow, Assistant General Counsel, Environmental, Entergy Corporation, explained how environmental laws are ill-equipped to handle an issue like post-hurricane pollution where multiple layers of contamination have become mixed together and therefore cannot be traced back to responsible parties. In those situations, paying for cleanups becomes an issue because the mixing of the contaminants makes it more difficult to assign legal responsibility.

2.6 Mr. Benjamin Irvin, Resident, Plaquemines Parish, Louisiana

Mr. Benjamin Irvin, Resident, Plaquemines Parish, Louisiana, described the injustices caused by deficient levees in his community. He explained that private owners built levees that were only three- to five-foot tall across Highway 23. Mr. Irvin described how the levees were breached three times by flood waters, making homes inaccessible for more than three weeks and leaving contaminated soil behind. Additionally, Mr. Irvin discussed the exposure the community has experienced from a Conoco Phillips refinery, an American Grain plant, and an Electro Coal plant. He said that Conoco Phillips releases hydrogen sulfide through flaring at night. Additionally, a recent explosion at the refinery released an unknown amount of dust into the air. Mr. Irvin asserted that faulty warning systems have failed the community and that Conoco Phillips has failed to notify the community of the adverse effects of the explosion. In response to Mr. Irvin's comments, Mr. Ridgway provided information regarding the Emergency Planning and Community Right-to-Know Act (EPCRA), which: 1) allows state and local planning for chemical emergencies; 2) provides for notification of emergency releases of chemicals; and 3) addresses communities' right-to-know about toxic and hazardous chemicals. Mr. Ridgway also suggested involving EPA to follow up with Conoco Phillips to ensure that EPCRA requirements are carried out and to bring attention to this community and others in similar situations.

2.7 Ms. Willie Mae Williams, Member, Concerned Citizens and Youth of Louisiana 44

Ms. Willie Mae Williams, Member, Concerned Citizens and Youth of Louisiana 44 (CCAYOLA44), described conditions and health problems in her Louisiana community which is located along Highway 44, near the Zen-Noh grain elevator, the Motiva Enterprise's oil refinery, and the Occidental Chemical's manufacturing plant. Railroad tracks also traverse the neighborhood. She said that her neighbors have developed open sores, burning and itching skin, developmental and behavioral disorders, and other health issues. Ms. Williams asserted that these problems are the result of pollution, grain dust, and use of biosolids on open fields, combined with a lack of adequate healthcare and knowledge to address the issues. She also said that doctors withheld results of health tests from her because they did not want to

get involved. Ms. Williams said that the Louisiana Department of Health and the Department of Environmental Quality told her that they did not have the scientific evidence to prohibit use of biosolids on the nearby fields. Ms. Williams' daughter, T'oshonte Williams, Member, CCAYOLA44, showed photographs of several schools located near the chemical facilities. Ms. Williams emphasized that the community would like additional ADR training. In addition, she requested that assistance be provided for the relocation for her community. She noted that the community will not heal until they move; however, most residents do not have the financial capacity to relocate.

Following her presentation, Ms. Williams responded to the NEJAC's questions:

- Mr. Richard Moore, Executive Director, Southwest Network for Environmental and Economic Justice, responded by asking the EPA Region 6 representative, Ms. Shirley Augurson, Environmental Justice Coordinator, EPA Region 6, to carry this message back to the regional office.
- Mr. Wilson commented that NEJAC should provide recommendations to EPA that ensure enforcement and compliance efforts are equally targeted to all communities.
- Ms. Wilkins emphasized the need for immediate relief for that community.
- In response to a question by Mr. Holmes, Ms. Williams indicated that plant workers are experiencing the same symptoms.

2.8 Ms. Patty Whitney, Organizer, Bayou Interfaith Shared Community Organizing

Ms. Patty Whitney, Organizer, Bayou Interfaith Shared Community Organizing (BISCO), described her community of Thibodeau, Louisiana, which is located along the Barataria-Terrebonne Estuary. Her coastal community is comprised of a large number of low-income and minority residents, particularly of Native American, African American, Vietnamese, and Filipino decent. Ms. Whitney stated that wetlands in the area are washing away into the Gulf of Mexico at a rate of one football field of land every 36 minutes. Storms, like Hurricanes Katrina and Ike, have significantly increased coastal land loss. Increased storm frequency and intensity due to climate change will only exasperate the problem. She added that the wetlands of the Mississippi delta are critical for water filtration. Hazardous and agricultural waste from the Midwest drains into the delta, where it is purified. Reductions in coastal wetlands will diminish the delta's ability to cleanse the polluted waters of the Mississippi River. She stated that the depletion of the forest capabilities by lumber and oil industry compounds this devastation, leaving very little inhabitable coastal and forest area for residents, whose ancestors have resided in that area for generations. She asked the NEJAC to consider coastal land loss as an environmental justice issue (not just an environmental issue) because of the devastating impact on the residents in the area.

Following her presentation, Ms. Whitney responded to the NEJAC's questions:

- In response to Mr. Rosenthal's request for recommendations to the NEJAC, Ms. Whitney said that BISCO would like public recognition of the dilemma they are facing relating to coastal land loss. Additionally, BISCO would like input into environmental justice issues and dialogues.
- Mr. William Harper, Vice President, Strategic Sourcing and Operations Support, Pacific Gas and Electric Company, asked about challenges regarding responses from state officials. Ms. Whitney replied that state officials are aware of the issue and have the desire to address the issues. However, she said that the Army Corps of Engineers controls the use of the land and the agency has not been willing to review the community's concerns.

2.9 Mr. Milton Bluehouse, Tribal Justice Liaison, New Mexico Department of the Environment and Navajo Tribe Member

Mr. Milton Bluehouse, Tribal Justice Liaison, New Mexico Department of the Environment and Navajo Tribe Member, described the history of uranium mining on Navajo lands since the 1940s. The industry has removed over 13 million tons of uranium ore from tribal lands and has employed more than 15,000 miners. Due to the chronic exposure to uranium mining tailings, large numbers of Navajo members suffer from lung cancer, renal failure, and bone cancer. These same indigenous communities face high unemployment of up to 66 percent and have an average annual median per capita income of \$6,000, and 30 percent lack plumbing facilities, 25 percent do not have kitchens, and 55 percent do not have phones. Mr. Bluehouse explained that Uranium Resources, Inc., has proposed in-situ uranium mining on tribal land. In-situ mining requires the injection of solutions into the ground, which dissolve the uranium in the

sandstone, and the solution and dissolved uranium are pumped out and processed nearby. Mr. Bluehouse explained that the Navajo Nation Council passed the Dine Natural Resources Protection Act, which outlaws uranium mining in Navajo Indian country. Residents fear that the mining solution could leach into the nearby aquifers and contaminate drinking water. He asserted that about 15,000 Navajo people rely on the groundwater as their sole source of drinking water. He also expressed concern about a processing plant that has been proposed for Crownpoint, New Mexico, which is a town of 3,000 Navajo tribal members. The plant is intended for yellow cake processing, which Mr. Bluehouse said will expose thousands of Navajo tribal members to radioactive materials. Mr. Bluehouse also said that cleanup of contamination from previous mining activities is not proceeding quickly enough. The Nuclear Regulatory Commission (NRC), which regulates the uranium mining industry, has proposed the use of the generic environmental impact statement (GEIS) for in-situ leaching, which he argued lacks an adequate environmental justice analysis and prohibits meaningful involvement of affected communities. The NRC also is using a Geographic Information System approach in the GEIS, which would broadly interpret site conditions without visiting the actual site.

Following his presentation, Mr. Bluehouse responded to the NEJAC's questions:

- In response to a question about specific recommendations for the NEJAC, Mr. Bluehouse requested help from the NEJAC and EPA to encourage NRC to abandon the generic environmental impact assessment process in favor of a full assessment that includes consideration of cultural and health impacts on the Navajo Nation. He asked that EPA, through its Congressional Affairs Office, recommend that a Federal oversight committee be created to ensure that NRC takes into account these concerns from the community.
- Mr. Holmes asked about published health studies to quantify the impacts of the mining operations. Mr. Bluehouse noted Southwest Research and Information Center's (SRIC's) conducts health studies within the Navajo communities of Church Rock and Crownpoint, New Mexico.
- Mr. Wilson inquired about national movements within the Native American community to address the multitude of environmental impacts. Mr. Bluehouse explained that the National Congress of American Indians lobbies on behalf of tribes regarding environmental, social, and economic issues, while the National Tribal Environmental Council based in Elk Creek, New Mexico, provides technical assistance to tribes. He added that SRIC has been successful over the last 20 years in providing technical assistance and monitoring.
- Ms. Catron requested that the NEJAC reinstate the Indigenous Committee to address these and other Native American issues.

2.10 Ms. Sofia Martinez, Director, Community, Development and Economics Program, Southwest Research and Information Center

Ms. Sofia Martinez, Director, Community, Development and Economics Program, Southwest Research and Information Center (SRIC), spoke in support of the Multicultural Alliance for a Safe Environment (MASE), which represents grassroots groups from the Laguna and Acoma pueblos in the Navajo Nation. MASE also provides technical assistance to tribal residents. Ms. Martinez noted that these communities have been home to uranium mining, weapons testing, and toxic waste disposal for over 60 years. She read a letter from MASE that protests uranium mining in New Mexico, particularly on tribal lands. She added that Laguna has placed a moratorium on uranium drilling throughout Pueblo lands. She outlined the detrimental environmental and health effects that the process has on nearby residents, including cancer and death. Ms. Martinez stated that the GEIS is not culturally acceptable because it does not accurately consider impacts on Native American populations. She added that such a deficient analysis would not be acceptable in other communities. She urged the NEJAC and EPA to investigate paradigms other than science such as local medicinal wisdom. Ms. Martinez explained that the limited health studies conducted thus far have not had an impact because the Federal government is poised to continue the mining. Ms. Martinez requested an expansion of the budgets for mine reclamation, community health study research, and Superfund mine cleanup. She stated that assistance is urgently needed because the current rise in uranium prices may create a demand for property around uranium-rich land and invited NEJAC members to visit New Mexico to witness the issues firsthand.

2.11 Ms. Connie Tucker, National Voter Rights Measure

Ms. Connie Tucker, National Voter Rights Measure, advocated relocation for persons living in areas of

high industrial activity and pollution. She explained that there has been no compliance with buffer zone requirements between industrial and residential areas in Louisiana. Ms. Tucker requested that the NEJAC recommend that EPA work with state regulatory authorities and industries to come up with a just solution for these communities, especially relocation. Ms. Tucker emphasized that relocation must be coupled with ADR to achieve cleanup even if residents are relocated. Additionally, Ms. Tucker described problems with environmental justice in EPA Region 4. She said that since the appointment of the current regional administrator, environmental justice has been centralized into one office with a very small staff and the environmental justice initiatives within the waste divisions have been dismantled. She added that this lack of commitment to environmental justice by the senior leadership has fostered more distrust of EPA. Ms. Tucker requested that the NEJAC examine potential contamination at not only former Federal contractor sites but at all sites where investigations and cleanups stop at the fence line. She added that contamination often extends beyond the property line, and asked that consideration of environmental justice policies and procedures be integrated into the delegation of EPA programs to the states.

Following her presentation, Ms. Tucker responded to the NEJAC's questions:

- In response to a question from Mr. Wilson about cleanup versus relocation, Ms. Tucker said that the long-range solution is using ADR to establish a pollution prevention initiative across the entire corridor, but in the short term, relocation is absolutely necessary.
- Mr. John Ridgway, Manager, Information Management and Communications Section, Washington State Department of Ecology, suggested that environmental justice policies and procedures be addressed in performance partnership agreements (PPA), which are written commitments between states and EPA. Through the PPA process, EPA can hold states accountable for their failure to address environmental justice issues.

2.12 Ms. Wynecta Fisher, Director, City of New Orleans, Mayor's Office of Environmental Affairs

Ms. Wynecta Fisher, Director, City of New Orleans, Mayor's Office of Environmental Affairs, provided ten suggestions for the President-elect Obama's transition team: 1) work with the Minerals Management Service to add environmental justice to the Coastal Impacts Assessment Program; 2) develop a definition of environmental justice that is intuitive to communities; 3) develop a template for local governments to use to address environmental justice during land use planning; 4) work with the U.S. Conference of Mayors to spread the environmental justice message; 5) encourage other Federal agencies to award bonus points for projects in environmental justice communities; 6) create best practices documents for the hotel industry; 7) create podcasts for NEJAC meetings; 8) include the impacts of cruise ships in the goods movement recommendations report; 9) create best practices documents for trade associations such as the U.S. Green Building Council and the American Association of Port Authorities; and 10) encourage states to have local environmental justice offices.

Following her presentation, Ms. Fisher responded to the NEJAC's comments and questions:

- Ms. Wilkins said that an effort called PACE, by public health organizations and planning divisions across the country, is addressing recommendation #3.
- Commenting on recommendation #6, Ms. Sue Briggum, Vice President, Federal Public Affairs, Waste Management, Inc., suggested that hotels follow the Leadership in Energy and Environmental Design (LEED) principles to encourage the use of environmentally-friendly cleaning products throughout the industry. Ms. Fisher said that she had attended a LEED certification project and found some inaccuracies in the materials regarding the EPA Brownfields Program.
- Mr. Wilson suggested adding universities and colleges to the list of suggestions and potential partners for the new EPA senior management because they are major consumers of energy and generators of food scraps and other wastes.

2.13 Mr. Richard Mason, Secretary, Shintech, Inc.

Mr. Richard Mason, Secretary, Shintech, Inc., described the company's community involvement process. The company manufactures polyvinyl chloride (PVC) in Addis, Louisiana and produces approximately 1,300,000 pounds of PVC per year. When the company was looking to open a new plant in Plaquemines Parish, the company actively sought out and involved the local community. Mr. Mason stated that Shintech was committed to incorporating the needs of the community and to assessing the health of

citizens while developing the new plant. During the planning process, the company used EPA and state guidance to ensure participation and dialogue with all stakeholders, including the public. As a result, Shintech developed and ran an 11-week job training course for local residents. The job training initiative provided Shintech with a diverse, community-based, employee team. It helped the company honor its commitment to live locally, hire locally, and buy locally.

Following his presentation, Mr. Mason responded to the NEJAC's questions:

- In response to a question from Mr. Holmes regarding the company's impacts on the community, Mr. Mason commented that Shintech believes that the community's health issues are related to poverty and a lack of access to healthcare. He added that Shintech hopes that providing jobs to the community will lead to some relief.
- Mr. Ridgway inquired about recommendations for EPA and the NEJAC. Mr. Mason emphasized proactive communication and dialogue with the community. Additionally, he explained the importance of Shintech's commitment to live, work, and hire locally. Executives that live locally are directly affected by their decisions, thus motivating them to make sound, thoughtful decisions. Mr. Mason explained that the senior manufacturing manager lives within two miles of the Addis plant.
- Various members of the NEJAC expressed appreciation for Mr. Mason's participation in the public comment session and encouraged others from industry to bring their points of view to the table.

2.14 Mr. Michael Allen, Resident, Plaquemine Parish, Louisiana

Mr. Michael Allen, Resident, Plaquemine Parish, Louisiana, described his community of Bayou Sorrel, located about 25 miles south of Baton Rouge, Louisiana. He explained the challenges his community faces, including pollution from a hazardous Superfund site and from a leaching injection well and stated that this pollution has resulted in a degraded quality of life in the Louisiana Bayou. Mr. Allen said that his family has owned an area of land for more than 100 years, but that Dow Chemical and other companies have spent the last 15 years attempting to claim mineral rights under the land. He described how this issue has put into question ownership of areas and responsibility for pollution.

Following his presentation, Mr. Allen responded to the NEJAC's comments and questions:

- Ms. Catron said that she could relate to the split estate issue; noting how one can own the land and not the minerals underneath. Mineral rights allow energy producers access to one's land to drill or dig wells that may impact property values and water quality. She explained that Wyoming has split estate issues around the production of coal bed methane and natural gas. The split estate concept has developed into a huge environmental justice issue.
- Mr. Allen responded to Mr. Holmes' inquiry about his family's legal representation by explaining that several lawyers quit the case when they found out which companies are involved.

2.15 Ms. Stephanie Anthony, Executive Director, Louisiana Democracy Project

Ms. Stephanie Anthony, Executive Director, Louisiana Democracy Project (LDR), described her organization as a grassroots social justice organization founded in July 1998 and based in Baton Rouge, Louisiana. LDR is comprised of single mothers, minorities, senior citizens, and students. Most of the members are low-income, uninsured, and living in the shadow of multiple petrochemical plants and refineries. According to Ms. Anthony, a study by the Environmental Background Information Center found that 92 percent of the residents living within two miles of the refineries were African American. This is much higher than the 40 percent of the population in East Baton Rouge Parish that is African American. Within the two-mile radius of the refineries, more than 28,000 people reside, 2,421 of whom are under the age of five. Ms. Anthony asserted that school children in the area have high levels of attention deficit disorder, short-term memory loss, asthma, other respiratory ailments, and high rates of cancer. She believes that these industrial facilities are not in compliance with existing air permits; adding that many of the facilities routinely emit pollution on weekends and holidays, when enforcement officials will not issue fines. The community feels that compliance is not a priority for the Louisiana Department of Environmental Quality due to its close relationship with industry. Recently, Exxon Mobil submitted a request to expand its refinery facilities. As a result, LDP has called for a moratorium on any new air permits until existing permits are in compliance with the Clean Air Act. Further, Ms. Anthony raised concerns about emergency preparedness in her community, particularly shelter-in-place guidelines.

These guidelines are based on models using high-end suburban homes rather than 50-year old wood homes that are found closest to the plants. She requested that an investigation be conducted to find the likelihood of survival of residents living in older wood homes in the case of a major chemical disaster. She fears that the survival rate will be much lower than originally suggested.

- Ms. Anthony noted that the United States has not addressed the personhood of infants and fetuses. There is a lack of research addressing the impacts of pollution exposure on people in their reproductive years. She added that these people eventually leave the area and take that exposure with them and recommended that EPA pursue more research in this area.
- In response to a question regarding the status of Exxon Mobil's permit expansion, Ms. Anthony mentioned that Exxon Mobil has withdrawn its request to expand its refinery.
- Ms. Catron discussed the importance of and difficulty in understanding risk analysis, adding that the Wind River Network has excellent training in risk analysis.
- Mr. Holmes asked whether the health department in the State of Louisiana has done any epidemiological studies. Ms. Anthony replied that the agency has shown little interest in doing one. Any research conducted usually concludes that lifestyle is the main culprit for the high incidence of disease.

2.16 Mr. Chris Haney, PhD. Candidate, University of North Carolina

Mr. Chris Haney, PhD. Candidate, University of North Carolina, submitted a letter detailing the benefits of the COMR model over the university-managed research model (UMRM). The letter, which was read into the record by Mr. S. Wilson, stated that the same scholars who helped document environmental justice burdens suffered by many residents of low-income and minority communities have abandoned these communities when it comes to the task of day-to-day community organizing, capacity-building, and sustained fundraising for environmental protection efforts. Although community-based participatory research has led to improvement of relationships between community-based organizations and academic partners, it does not go far enough because the balance of power (i.e., funding and management decisions) is still favors the university, not the community-based organization. While COMR addresses this inequity by providing an opportunity for community-based organizations with demonstrated organizational capacity to serve as project managers on grants, it also emphasizes the credibility and capacity of community-based organizations to develop, own, manage, foster, and sustain viable research agendas for ongoing environmental hazards and related public health risks. In the letter, NEJAC was asked to promote a research framework that supports and rewards community involvement even after research is completed and the letter asked that community development organizations be provided with resources and power to hire researchers and form lasting partnerships. Mr. Rosenthal asked Mr. S. Wilson about the source of research funding. Mr. S. Wilson cited EPA's Science to Achieve Results grant program and other funding for environmental justice and health issues by the U.S. Department of Health and Human Services, Health Resources and Services Administration, NIH, and Centers for Disease Control and Prevention.