Environmental Justice and Federal Facilities

Recommendations for Improving Stakeholder Relations Between Federal Facilities and Environmental Justice Communities

October 2004

Prepared by the
National Environmental Justice Advisory Council
Waste and Facility Siting Subcommittee
Federal Facilities Working Group

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ACKNOWLEDGMENTS

The Federal Facilities Working Group of the National Environmental Justice Advisory Council's (NEJAC) Waste and Facility Siting Subcommittee wishes to acknowledge and thank the organizations and individuals who contributed to the research, activities, and development of this report. We particularly thank those who participated in our five site visits – facility personnel, regulators, community residents and organizations, business people, advisory board members, and all who participated in the interviews.

Special thanks to the Southwest Workers Union, Defense Depot of Memphis Tennessee Concerned Citizens Committee, the Imani Group, and Citizens for Environmental Justice for organizing the community gatherings with residents during our site visits. We would like to thank the following tribes and affiliated offices for taking the time to meet with Working Group members: Navajo Nation EPA, Navajo Department of Economic Development, Zuni Agency, Zuni Department of Natural Resources, Nez Perce tribe, Yakama Nation, Colville tribes, Wanapum People, and Bureau of Indian Affairs. We also thank the Executive Council of NEJAC for commissioning the Federal Facilities Working Group to carry out the activities necessary to produce this report.

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* *Served until December 31, 2001*

DISCLAIMER

This report and recommendations have been written as a part of the activities of the National Environmental Justice Advisory Council, a public advisory committee providing independent advice and recommendations on the issue of environmental justice to the Administrator and other officials of the United States Environmental Protection Agency (EPA).

This report has not been reviewed for approval by the EPA and, hence, its contents and recommendations do not necessarily represent the views and the policies of the Agency, nor of other agencies in the Executive Branch of the federal government.

NATIONAL
ENVIRONMENTAL JUSTICE
ADVISORY COUNCIL

October 15, 2004

Administrator Mike Leavitt
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, DC 20460

Dear Administrator Leavitt,

Please find attached a copy of the report entitled "**Environmental Justice and Federal Facilities: Recommendations for Improving Stakeholder Relations Between Federal Facilities and Environmental Justice Communities,** October 2004."

In May 2000, in response to public comments and feedback, EPA, through its Office of Environmental Justice, requested the National Environmental Justice Advisory Council (NEJAC) to identify and evaluate key issues of concern to communities regarding activities and operations at and around federal facilities and formulate a set of national policy recommendations to address the discernable concerns.

This report presents recommendations to the Environmental Protection Agency, as well as other agencies associated with the cleanup of federal facilities, with the aim of improving relationships between facilities, communities, regulators, and governmental bodies involved in the cleanup of contaminated federal facility sites. The recommendations reflect consensus among individuals and organizations with diverse backgrounds and interests who have offered their views on how best to address concerns from communities that are in proximity to federal facilities. The report reflects the advice and recommendations from several meetings, on-site interviews, analyses, and public comments. It is the hope of NEJAC that the agencies addressing clean up at federal facilities will implement these recommendations in the spirit in which they are offered.

This report proposes several overarching consensus recommendations to the EPA and other federal agencies. Please find below the five main recommendations:

1. **Encourage enhanced community assessments and communication methods to improve cultural sensitivity for environmental justice communities**
    - Conduct detailed assessments of cultural differences at environmental justice communities in close proximity to federal facilities.
    - Encourage the documents translation into the common languages. Translators are encouraged to be present at all Advisory Board and public meetings.

2. **Encourage the provision of access to adequate health services**
   - Provide and/or support additional health services, including specialized care, to communities where federal facilities released significant quantities of hazardous substances.

3. **Encourage the provision of additional resources for capacity building**
   - Encourage the determination of whether affected environmental justice communities have sufficient capacity to oversee federal cleanup programs constructively and continuously;
   - When capacity is an issue within these communities, funding should be commensurate with the anticipated level of activity and assistance should be designed to enable environmental justice communities to develop priorities, explore issues, and make independent recommendations; and,
   - Encourage the design and implementation of an internship program that provides college students from environmental justice communities appropriate work experience.

4. **There is an acute necessity to improve and create more effective communication between facilities, regulators and environmental justice communities**
   - Encourage and reinforce the need for tangible opportunities for community residents who are not members of the advisory board to participate fully in discussions and decision-making regarding cleanup activities;
   - Encourage the use of a myriad and diverse set of methods to interact with and engage the public to address community concerns. These methods should include community workshops, trainings, and community-based organized activities.

5. **New and consistent opportunities are needed to help environmental justice communities influence decisions**
   - Create and implement new and consistent opportunities for environmental justice communities to provide input into the decision-making process and demonstrate how their recommendations and concerns are considered and integrated into the final outcome.
   - Provide more technical and financial resources to develop capacity, thus improving the cleanup program and building a working relationship necessary to conduct long-term stewardship.

NEJAC is pleased to present this report to you for your review, consideration, response, and action. In addition, NEJAC appreciates any assistance you can provide in processing the recommendations in this report through EPA's Office of Solid Waste and Emergency Response with consultation, as appropriate, with the Office of Environmental Justice and other relevant EPA offices. Finally, NEJAC hopes you work closely with other federal agencies, including DoD, DOE, and states, to ensure that the recommendations in this report are considered.

Sincerely,

Veronica Eady
Chair, NEJAC

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SUMMARY

This report was developed by the National Environmental Justice Advisory Council (NEJAC) to present the findings of its Federal Facilities Working Group (FFWG or Working Group) to identify and evaluate key issues of concern to environmental justice communities regarding activities and operations at and around federal facilities and to formulate a set of national policy recommendations to address these concerns. This issue was raised by environmental justice communities at a May 2000 NEJAC meeting. This report, including its recommendations, reflects the consensus views of the members of NEJAC and the FFWG, who represent a diverse group of stakeholders. The United States Environmental Protection Agency (EPA), through its Office of Solid Waste and Emergency Response's Federal Facilities Restoration and Reuse Office, supported the Working Group's efforts.

OVERVIEW

For the purposes of this report, the term "federal facilities" is defined as sites that are currently or previously owned or operated by the federal government. The term "environmental justice communities" is defined as communities of color, low-income communities, and American Indian tribes and Alaskan Native Villages. This report identifies and discusses particular issues that are raised when environmental justice communities are negatively or disproportionately impacted by federal facilities. It is hoped that the recommendations presented in this report will lead to improved engagement with environmental justice communities at federal facilities.

This report consists of four sections. Section I provides an introduction to the report and an overview of its structure. Section II provides background information on the NEJAC, a brief history of the FFWG, a summary of environmental justice issues around federal facilities, an overview of federal agencies' environmental justice and public participation policies, and a description of the FFWG's role and membership. Section III provides information on the FFWG's methods for collecting data and developing this report, including information on site selection, its visits to three Department of Defense (DoD) and two Department of Energy (DOE) sites, and how the data from these site visits were collected and analyzed. Section IV presents the Working Group's findings and recommendations and highlights the key issues that need to be addressed for environmental justice communities to more effectively participate in the cleanup process at federal facilities.

BACKGROUND AND METHODOLOGY

Historically, environmental justice communities believe there has been a failure on the part of the federal government at federal facilities that are undergoing environmental restoration activities to provide meaningful opportunities for public involvement, inform communities about site hazards, and enable communities to have an influence in the decision-making process. This failure has resulted in significant mistrust between the site, various stakeholders, and surrounding communities, which has led to raised significant concerns throughout environmental justice communities.

Clearly the need for community involvement and input remains crucial in environmental justice communities. For a variety of structural, institutional, and procedural reasons, these communities may experience severe impacts from pollution or other environmental hazards at federal facilities. Efforts must be made to improve the working relationship between federal facilities and environmental justice communities to ensure that input from all stakeholders is considered when decisions related to cleanup are made. Unfortunately, many environmental justice communities do not feel federal facilities are adequately addressing their unique concerns and issues, nor do they feel that their input is considered during the decision-making process. This

became evident to the Executive Council of NEJAC through public comments it received in the late 1990s about the relationship between environmental justice communities and federal facilities. Those who commented at national NEJAC meetings were concerned about the following:

- Lack of sufficient outreach efforts by federal facilities to inform and educate environmental justice communities about present and potential impacts of contamination from their sites to these communities;
- Apparent disregard by federal facilities of community input related to contamination and its impact on the surrounding community;
- Length of time taken and amount of analysis performed by federal agencies before health issues are acknowledged;
- Lack of interim measures adopted by federal facilities to address the health effects on communities;
- Lack of enforcement by federal agencies of environmental laws and regulations at their facilities; and
- Limited funding and resources allocated to communities that are adversely affected by contamination at federal facilities.

People who provided comments asked the Executive Council of NEJAC to establish a working group to address the issues faced by environmental justice communities near federal facilities. The NEJAC acknowledged these suggestions by establishing the Federal Facilities Working Group in May 2000.

To address these concerns and comments received at the NEJAC meetings, the Working Group conducted site visits at five federal facilities to identify and examine common variables associated with stakeholder participation at environmental justice communities. The purpose of the site visits was to examine the relationship between federal facilities and environmental justice and tribal communities. In developing a methodology for site visits, the FFWG made several key assumptions, including:

- The primary purpose of site visits is to evaluate the quality of the interaction between a federal facility and an environmental justice community.
- Each site visit evaluates some cleanup process or relationship that is already underway and has a specific beginning or starting point.
- By focusing on a process with a specific starting point, the site visits can document changes in the relationship that occurred as a result of the process.
- The site visits serve as an interim evaluation of how the stakeholder participation process is functioning in environmental justice communities and how the process may be improved.
- The site visits can be used to identify lessons learned from the process.

The Working Group visited DOE facilities at Savannah River Site in Aiken, South Carolina, and the Hanford site in Richland, Washington; and DoD facilities at Kelly Air Force Base in San Antonio, Texas, Defense Depot Memphis (Defense Logistics Agency) in Memphis, Tennessee, and Fort Wingate (Army), in Gallup, New Mexico. The FFWG wrote a report highlighting each site visit, which are included as Appendix A in this report. These site visit reports served as the basis for developing the findings and recommendations included in this report.

FINDINGS AND RECOMMENDATIONS

Based on data from the five site visits, the FFWG developed findings and recommendations to enable environmental justice communities to more effectively participate in the cleanup process at federal facilities, as follows:

A. ENHANCED COMMUNITY ASSESSMENTS AND COMMUNICATION METHODS NEEDED TO IMPROVE CULTURAL SENSITIVITY FOR ENVIRONMENTAL JUSTICE COMMUNITIES

Each community and its sub-groups has specific cultural issues that stakeholders, including the lead federal agency responsible for cleanup and federal and state regulators, must be aware of to enhance the value, acceptance and speed of cleanup efforts. Prior to commencement of any major cleanup program, all members of the cleanup team should do a better job of incorporating and addressing cultural differences in their assessments. Such assessments need to account for cultural, ethnic, historical, and educational factors, as well as work and family ethics and local governing bodies. If the assessment identifies any cultural divides between the local community and the federal government, a cultural awareness training plan should be developed to educate all parties about cultural differences that may exist among local groups and educate such groups about governmental culture, policies, and procedures. Both the government and the community need to be included in this education program. The proposed curriculum for this program should be reviewed by community leaders first, to ensure that all relevant cultural differences have been clearly identified.

Just as work safety plans are required to be site specific, communications plans must also. Each local, ethnic, and tribal culture has its own unique styles and methods of communication. In communities where English is not the primary language, documents should be translated into the common language and translators should be present at all public meetings.

B. ACCESS TO ADEQUATE HEALTH SERVICES NEEDED

Like environmental justice communities at other sites, environmental justice communities near contaminated facilities tend to have greater health problems on average than the American population as a whole. Community members blame many medical conditions and diseases on exposures to facility contamination, regardless of whether there is a medically understood link or unlikely etiology, such as heart disease. However, the conservative methodology used by the federal Agency for Toxic Substances and Disease Registry (ATSDR) rarely confirms a connection between contamination and elevated rates of disease or illness. In many of these environmental justice communities, the public's response to government studies that result in "no findings" is a demand for additional studies and research. Communities want to prove that the facility caused illness or death in the past or is making them ill at the present time. In the absence of improved universal health care, federal agencies should provide or support additional health services to communities where federal facilities have released significant quantities of hazardous substances into the environment. This assistance could come from a variety of sources, such as the facility, ATSDR, EPA, DOE, DoD, or other appropriate agencies. Such programs not only would prove valuable, but also are likely to increase trust among communities and help contribute to a more constructive working relationship between the environmental justice communities and government agencies responsible for cleanup.

C. ADDITIONAL RESOURCES FOR CAPACITY BUILDING NEEDED

The cleanup of major federal facilities is a daunting task. These sites often cover thousands or tens of thousands of acres. The life-cycle cleanup costs for the sites visited by the Working Group range from the tens of millions of dollars at Defense Depot Memphis and Fort Wingate to tens of billions of dollars at DOE's Hanford site. Even the most empowered, educated, and affluent communities with people who can participate fulltime in cleanup activities find it difficult to stay abreast of these massive cleanup projects. Without resources of their own, environmental justice communities are at a great disadvantage. Community members—even local and tribal governments—do not fully understand the complexity and technical aspects of environmental decision making. They usually lack the technical background to understand various technologies being offered at these sites, some of which are just emerging from government laboratories. They

rarely have the resources and time to keep up with the different roles and activities of the government agencies involved. EPA and the lead federal agency responsible for cleanup activities should determine whether affected communities, environmental justice stakeholder groups, and tribes have sufficient capacity to constructively and continuously oversee federal cleanup programs. Funds should be commensurate with the anticipated level of activity, and assistance should be designed to enable environmental justice communities to develop priorities, explore issues, and make recommendations independent of the lead agency.

D. IMPROVED AND EFFECTIVE COMMUNICATION NEEDED BETWEEN FACILITY/REGULATORS AND ENVIRONMENTAL JUSTICE COMMUNITIES

Facility personnel and regulators must find ways to work with communities to ensure that information is being shared, environmental justice communities see how their input is used or not, issues and problems are identified in a timely and consistent manner, and feedback is received by the communities, tribes, and their leaders. Environmental justice communities impacted by activities at federal facilities feel they are entitled to be "engaged" in the processes and activities associated with the cleanup at their sites. Public participation that includes a two-way communication process can generate many benefits. It helps build credibility for an interactive process where commitments are honored; improves understanding on all sides, which can prevent litigation, protests, demonstrations, and anger in the community; and creates an atmosphere where environmental justice communities feel that they are being treated fairly. The community involvement processes should provide opportunities for the environmental justice community and general public to receive clear, comprehensive information about cleanup activities, and also should provide the mechanisms and structure necessary to allow them to affect cleanup decisions. Community involvement efforts should reach out to the broadest possible range of stakeholders and seek their involvement through a variety of effective and innovative methods appropriate to their specific community.

E. NEW AND CONSISTENT OPPORTUNITIES NEEDED TO HELP ENVIRONMENTAL JUSTICE COMMUNITIES INFLUENCE DECISIONS

Environmental justice communities believe that real community involvement yields influence, while the federal facility definition of public participation often consists of a checklist of activities. Leaders in environmental justice communities and organizations are adamant about being substantively involved in the process in which their input has the power and they have an opportunity to change, modify, or adjust proposed actions, policies, funding priorities and other decisions. Access to information is critical in enabling communities to monitor and participate in facility cleanup activities, raise questions of concern, and become real partners in devising plans to address contamination. Positive results often occur when communities are brought into the process early, are treated respectfully, and have the resources to independently evaluate the facility's cleanup reports and proposals. Federal facilities should create and implement new and consistent opportunities, outside of the advisory boards, for environmental justice communities to provide input into the decision-making process and demonstrate how their recommendations and concerns are considered and integrated into the final outcome. The processes for community involvement should be determined by a partnership between the facility, regulators, and community. The ability of the community to participate and help make decisions may depend on the facility providing more financial resources and access to technical assistance to enable the community to develop its capacity for meaningful participation. This will assist in building a working relationship necessary for long-term stewardship.

I. INTRODUCTION

This report presents findings of the National Environmental Justice Advisory Council's (NEJAC) Federal Facilities Working Group (FFWG or Working Group), which NEJAC created to investigate the impact of the cleanup of hazardous waste at federal facilities on low-income communities, tribes, and communities of color. The United States Environmental Protection Agency (EPA), through its Office of Solid Waste and Emergency Response's Federal Facilities Restoration and Reuse Office, supported the Working Group's efforts. To research these impacts, the Working Group reviewed concerns raised by environmental justice communities about federal facility cleanups and developed a research methodology to collect and analyze information about this issue. The Working Group visited five federal facilities to talk with various stakeholders impacted by cleanup activities. This report presents the results of this effort.

> For the purpose of this report, "environmental justice communities" are defined as communities with environmental justice issues. As defined by the U.S. Environmental Protection Agency, the term "environmental justice" is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.

This report is divided into four key sections. This first section provides and introduction to the report and an overview of its structure. The second section provides background information, including the history of the Federal Facilities Working Group, a summary of environmental justice issues at federal facilities, and an overview of environmental justice policies of three federal agencies, the EPA, Department of Energy (DOE), and the Department of Defense (DoD). The third section provides a detailed overview of how the Working Group compiled and analyzed information for the development of this report, including information on site selection, its visits to three DoD and two DOE facilities, and how the data from these site visits were collected and analyzed. The fourth section presents findings and recommendations, which are divided into five topic areas, each of which highlight key issues the Working Group believes need to be addressed for environmental justice communities to effectively participate in the cleanup process at federal facilities.

Since this report is based on data collected from five federal facilities, the findings and recommendations drawn from this effort may be limited in their applicability to other federal facilities. The Working Group's preference was to conduct a thorough investigation of this issue, but was constrained by both funding and timing. Nevertheless, the members of the Working Group believe that if the recommendations contained within this report are adopted by cleanup staff at federal facilities, environmental justice communities impacted by cleanup activities can have an effective and constructive role in the cleanup process. This not only benefits the impacted communities, but the federal facilities as well.

II. BACKGROUND

A. HISTORY OF NEJAC AND THE FEDERAL FACILITIES WORKING GROUP

The NEJAC is a federal advisory committee chartered in 1994 to provide advice to the Administrator of the EPA on issues concerned with environmental justice. The Federal Advisory Committee Act (FACA) was passed in 1972 to achieve an open government through the creation and operation of independent committees to furnish advice and diverse opinions to government decision makers on essential objectives and public policy. NEJAC is one of EPA's many FACA groups.

NEJAC membership is a balanced representation of diverse interests, including: community-based groups, industry and business, academic and educational institutions, state and local government agencies, federally recognized tribes and indigenous people, and other non-governmental groups. NEJAC established six subcommittees that address various issues corresponding to EPA's areas of authority, responsibility, and structure. On occasion, NEJAC establishes working groups to support the efforts of their subcommittees. One of these groups, the Federal Facilities Working Group (FFWG or Working Group) was established to investigate environmental justice issues related to the cleanup of hazardous waste at federal facilities.

For several years, citizens from around the country have expressed very strong concerns about hazardous waste cleanup activities at federal facilities and the impact of these activities on environmental justice communities. These concerns primarily focused on:

- the lack of cultural sensitivity among federal facility officials and policies;
- environmental justice communities lack of influence in the decision-making process;
- the need for technical assistance and capacity building;
- difficulty obtaining information about cleanup activities at federal facilities; and
- the lack of enforcement of environmental laws and regulations by federal agencies.

> "Whereas the NEJAC has repeatedly heard public testimony over the past 7 years about environmental justice issues associated with federal facilities, Be it therefore resolved that the NEJAC establishes a Federal Facilities Working Group to research, investigate and provide recommendations to the NEJAC on environmental justice issues related to federal facilities."
>
> Resolution of the Executive Council of the NEJAC, May 26, 2000

B. SUMMARY OF ENVIRONMENTAL JUSTICE AROUND FEDERAL FACILITIES

The U.S. government is responsible for addressing environmental contamination at their sites nationwide. For the purpose of this report, federal facilities are defined as sites that are currently or previously owned or operated by the federal government (the lead federal agency). DoD and DOE currently manage the highest number of cleanup programs at such federal facilities nationwide. These agencies are required to follow strict federal cleanup laws to ensure the protection of human health and the environment. EPA headquarters and regional offices serve as regulators to these federal agencies. EPA oversees the cleanup of such cleanup programs and ensures that the federal agencies abide by federal laws and statutes. State environmental programs serve as co-regulators with EPA to ensure state laws are followed. At certain federal facilities, primarily Resource Conservation and Recovery Act (RCRA) cleanup sites, the state, rather than EPA, is the lead regulator.

The scope of cleanup at such facilities is quite large. Sites are contaminated with solvents, fuels, heavy metals, munitions and their constituents, ordnance, radioactive waste, and a variety of other toxic contaminants. These federal facilities include: active military ranges; bases and industrial plants; DOE's nuclear weapons complexes and offices, laboratories, land, and infrastructure of other federal agencies; recently transferred properties, including those closed under DoD's Base Realignment and Closure (BRAC) program; and facilities that were closed decades ago and are being addressed under the military's Formerly Used Defense Sites (FUDS) program or DOE's Formerly Used Sites Remedial Action Program. Approximately 175 of these properties are on the "Superfund" or National Priorities List (NPL) of the nation's most hazardous properties, and many others pose equally significant risks to public health, public safety, and the environment.

As highlighted in the 1996 *Final Report of the Federal Facilities Environmental Restoration Dialogue Committee* (FFERDC), a key element of environmental decision making during the cleanup processes at federal facilities involves adequate community involvement and effective agency information dissemination to affected communities. Examples from communities around the nation demonstrate that involving

communities early and often in the decision-making process enables public stakeholders to help agencies make cost-effective decisions that lead to faster cleanups.[1]

Historically, failure on the part of environmental restoration sites to provide meaningful opportunities for public involvement and inform communities about site hazards has resulted in significant mistrust between stakeholders and federal facilities and allowed communities to have very little influence in the decision-making process. The level of mistrust has been particularly high within environmental justice communities adjacent to federal facilities. Mistrust can be particularly pervasive at DoD and DOE facilities that have served national security interests and concerns. Due to their nature, activities that occurred on sites (especially at DOE facilities) remained confidential. These interests often took some primacy over environmental stewardship and community involvement objectives, which resulted in a general resistance to external oversight.

Clearly the need for community involvement and input remains crucial in environmental justice communities. For a variety of structural, institutional, and procedural reasons, these communities may experience severe impacts from pollution or other environmental hazards. Efforts must be made to improve the working relationship between federal facilities and environmental justice communities to ensure that input from all stakeholders is considered when decisions related to cleanup are made. Unfortunately, many environmental justice communities do not feel federal facilities are adequately addressing their unique concerns and issues, nor do they feel that their input is considered during the cleanup decision-making process. This became evident to the Executive Council of NEJAC through public comments it received in the late 1990s about the relationship between environmental justice communities and federal facilities. Those who commented were concerned about the following:

- the lack of enforcement of environmental laws and regulations by federal agencies at their facilities;
- the length of time taken and the amount of analysis performed by federal agencies before a health issue is acknowledged;
- the lack of interim measures adopted by federal facilities to address the health effects on communities;
- the apparent disregard by federal facilities of community input related to contamination and its impact on the surrounding community;
- the lack of sufficient federal facility outreach efforts to inform and educate environmental justice communities about the contamination present at federal facilities and the potential impacts of the contamination on these communities; and
- the limited funding and resources allocated to communities that are adversely affected by contamination at federal facilities.

People who provided comments asked NEJAC to establish a working group to address the issues faced by environmental justice communities near federal facilities. The NEJAC acknowledged these concerns and suggestions by establishing the Federal Facilities Working Group in May 2000.

C. OVERVIEW OF FEDERAL AGENCY POLICIES FOR ENVIRONMENTAL JUSTICE AND PUBLIC PARTICIPATION

Executive Order 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations," directs all federal agencies to integrate environmental justice into their mission. EPA, DoD, and DOE have embraced this directive and issued policy statements describing their approach for integrating environmental justice into their activities and programs. A summary of their efforts to integrate

[1] *Final Report of the Federal Facilities Environmental Restoration Dialogue Committee: Consensus Principles and Recommendations for Improving Federal Facilities Cleanup*, April 1996

environmental justice in their programs may be found in NEJAC's report, "Integration of Environmental Justice in Federal Agency Programs," published in May 2002.

At federal facilities that generate enough interest from the community, advisory boards and community groups are key elements to the public participation process for environmental restoration activities at specific sites. They provide a forum through which members of nearby communities can provide input to federal facility cleanup programs. Comprised of people with diverse interests within the local community, such as federal representatives from the site, EPA, state and local governments, tribal governments, current workers, private industry, and the impacted local community, advisory boards are one form of engaging the public in the cleanup processes. However, relying on advisory boards alone is not sufficient for adequate community involvement. Boards hold public meetings directly in the community; the regularity depends on the level of public interest.

Advisory boards are not decision-making bodies, but rather review, comment, and provide recommendations on proposed or existing environmental restoration activities. Some recommendations are adopted, others are not. The following advisory boards exist at some federal facilities:

- DoD's Restoration Advisory Boards (RABs) are established at operating installations, recently closed or closing, and formerly used defense sites where sufficient and sustained community interest exists.

- DOE's Site-Specific Advisory Boards (SSABs) provide advice and recommendations concerning environmental restoration activities to DOE's Environmental Management Office. Eleven SSABs have been formed; nine are currently active.

- Community Advisory Groups (CAGs), sponsored by the EPA or state regulatory agencies, are organized through programs that address non-federal sites. Some CAGs address federal facilities, along with nearby non-federal sites, or fulfill the role of the RAB at sites where the RAB had difficulty functioning. CAGs serve as the focal points for information exchange between the local community and EPA, state, tribes, and other pertinent federal agencies involved in the cleanup of Superfund sites.

Along with community involvement statutory obligations, federal agencies also provide resources to communities. Financial resources and technical assistance to environmental justice communities at federal facilities include:

- EPA's Technical Assistance Grants (TAGs) provide funds for communities to participate in decision-making activities at eligible NPL sites. These funds are used to contract independent technical advisors to interpret and assist the community understanding of technical information about their site.

- EPA's Technical Outreach Services for Communities (TOSC) program, through the Hazardous Substance Research Centers, helps citizens better understand contamination issues in or near their communities by working with universities to provide free, independent, non-advocate, technical assistance at contaminated sites.

- DoD's Technical Assistance for Public Participation (TAPP) program provides technical assistance to local community members of RABs at DoD facilities. DoD provides guidance on how RABs can obtain technical assistance to better understand the scientific and engineering issues underlying an installation's environmental restoration activities.

Federal agencies endorse the concept of public participation during the cleanup of hazardous waste at federal facilities. For NPL sites, public participation efforts are governed by statute and regulations that specify what community involvement must occur and when. For non-NPL sites, public participation programs and

activities vary by Federal agency and individual site. The level of public participation often varies by the severity of contamination, interest of the community, and willingness of the federal agency to involve the public in the cleanup process. Most agencies published policies that support and endorse frequent and effective public participation. However, the implementation of these policies is inconsistent across the country. Advisory boards are sometimes insufficient, but have greatly improved their public involvement efforts since the 1990s. The National Environmental Policy Act (NEPA) requires public participation while conducting an Environmental Impact Statement (EIS), which provides communities with another legal tool to ensure involvement in decision making associated with federal cleanup actions.

D. ROLE AND MEMBERSHIP OF THE FEDERAL FACILITIES WORKING GROUP

In May 2000, in response to public comment and feedback regarding the need to address environmental justice concerns at federal facility sites, the NEJAC Executive Council chartered the Federal Facilities Working Group under NEJAC's Waste and Facility Siting Subcommittee. The Working Group was tasked with identifying and evaluating key issues of concern to environmental justice communities regarding activities and operations at and around federal facilities and formulating a set of national policy recommendations to address communities' concerns. Through this effort, the Working Group hopes EPA will adopt the recommendations included in this report, which will lead to improved engagement with environmental justice communities at federal facilities. The FFWG consists of ethnically and geographically diverse members who represent state, tribal, and local governments; private industry; community groups; academia; and non-governmental organizations.

On December 11, 2000, the Department of Interior (DOI), DoD, DOE, and EPA's Office of Solid Waste and Emergency Response co-signed a Memorandum of Understanding to establish policies and procedures for the general working agreement between these four agencies in support of the Federal Facilities Working Group. These federal agencies agreed to support and work with the FFWG on their effort. A copy of this Memorandum of Understanding is located in Appendix C.

III. DATA COLLECTION AND REPORT METHODOLOGY

The mission of the FFWG is to "go out and work with communities near federal facilities with environmental issues (including cleanup) and speak with communities and agencies and compile information to develop and provide a small number of focused recommendations." To accomplish this goal, the FFWG conducted site visits involving various federal facilities to examine and identify common variables associated with stakeholder participation at federal facilities in general, and environmental justice communities, in particular. The Working Group examined five specific federal facility sites and wrote a site visit report for each site. These site visits served as the basis for developing the recommendations contained within this report.

A. PROCESS FOR PREPARING SITE VISITS

After determining that site visits were the most appropriate method for collecting information to assist in the development of recommendations, the FFWG developed a methodology that included several key assumptions:

- The primary function of the site visits is to evaluate the quality of the interaction between a federal facility and environmental justice community.
- Each site visit evaluates a cleanup process or relationship that is already underway and has a specific beginning or starting point. By focusing on a process with a specific starting date, the site visits can document changes in the relationship that occurred as a result of the process.

- The site visits serve as an interim evaluation of how the stakeholder participation process is functioning in environmental justice communities and how it may be improved.
- The site visits can be used to identify lessons learned.

B. SELECTION PROCESS FOR SITE VISITS

Concurrent with developing a site visit methodology, the FFWG developed a list of 15 potential sites they wanted to visit. The FFWG members proposed sites based upon a set of criteria that considered: the geographical location; lead federal agency (DoD, DOE); type of federal site (BRAC, NPL, non-NPL, or FUDS); key environmental justice issues; primary contaminants of concern; stage or status of the cleanup process; and level of community involvement. This initial list was reviewed by the FFWG and several sites were removed from consideration for a variety of reasons. The five final sites that the Working Group chose were two DOE and three DoD-lead facilities. The DOE facilities included the Savannah River Site in Aiken, SC, and Hanford site in Richland, WA. The three DoD locations included Kelly Air Force Base in San Antonio, TX; Defense Depot Memphis (Defense Logistic Agency) in Memphis, TN; and Fort Wingate (Army), Gallup, NM. The Savannah River Site and Memphis Defense Depot site impacts African-American communities. Much of Fort Wingate is slated for transfer to two Native American, Federally recognized tribes. Kelly Air Force Base impacts a predominantly Hispanic community. Hanford site impacts both tribal and Hispanic communities.

FUDS in Alaska were on the initial list of 15 potential sites. However, due to the limited travel budget provided by EPA and the costly airfare, the Working Group did not to visit Alaska. This decision was extremely difficult since, historically, Alaska has been excluded from studies due to distance from the continental U.S. and travel costs. Thus, the findings and recommendations and all tribal references included in this report apply to sites in the continental United States and do not necessarily apply to sites or communities in Alaska. However, it is recommended that NEJAC provide the opportunity to specifically study Alaskan sites that are impacted by Federal Facilities. This study could be conducted through the Federal Facilities Working Group or another NEJAC Subcommittee or Working Group. (A letter from Shawna Larson, FFWG member, which expresses her opinions about the FFWG's site selection process, is included in Appendix E.)

C. DATA COLLECTION METHODOLOGY

Site visit development is an iterative process, whereby additional themes and issues are developed as research uncovers new information, leading to further analysis and investigation. Given the iterative nature of such a process, this data collection process was designed to proceed from a generalized collection method to one that is more specific as issues are identified and become clearer.

The general methodology for collecting and developing the site visits included six discrete steps: 1) gather background information; 2) identify key stakeholders with whom to talk; 3) develop a site-specific blueprint to guide the conversation with the stakeholders; 4) visit each federal facility site to tour the facility and converse in person (or over the phone if not available) with stakeholders involved or impacted by the facility; 5) analyze data; and 6) develop a site visit report. The entire FFWG participated in the data collection process and contributed to the development of the five site visit reports. A more thorough description of the data collection process and each of the five discrete steps are provided below.

D. GATHER BACKGROUND SITE INFORMATION

Initially, the FFWG gathered and reviewed available site information to identify preliminary site- and stakeholder-specific information, and initial information regarding key issues involving interactions between environmental justice communities and the federal facility. The Working Group conducted an initial Internet search for site-specific documents (e.g., historical documents, fact sheets, reports, minutes, proceedings, and/or

correspondence) as well as an on-line media search for potential local, regional, and national news items related to the site. The Working Group received support from its EPA Federal Designated Official (DFO), other EPA staff, and an EPA contractor, Environmental Management Support, Inc. (EMS). This support included help with identifying and collecting information resources and documents for purposes of site visit development. In addition, the FFWG contacted the lead federal agency, EPA Region, state remedial project managers, outreach consultants, environmental justice and community involvement coordinators to request key site documents. During this process, FFWG members found it difficult to find a contact at the DoD Headquarters level who would support their efforts. However, they did find support from DoD staff working at the Regions and at the sites. The FFWG also worked through several avenues to identify key stakeholders, including site staff, Advisory Board Members, and community representatives on the Working Group. The Working Group would like to complement the federal agencies for their excellent cooperation.

1. Identify Key Stakeholders

Following the initial data gathering phase, the FFWG identified key stakeholders. Once these people were identified, the FFWG contacted them to schedule a time to talk either by telephone or during the site visits conducted by a team of FFWG members. Other relevant stakeholders also were identified during these initial contacts. In an effort to develop the most balanced site visits possible, the Working Group contacted and scheduled time to meet with representatives from environmental justice communities, federal facility personnel, state and EPA regulators, tribal members, local officials, and other community groups.

2. Develop Conversation Guide

The Working Group developed a site-specific "Conversation Guide" that served as a blueprint for outlining key issues to be discussed with each stakeholder contact. This guide presented each of the key issues identified during the collection of background information. The use of this guide promoted a free-flowing narrative between the FFWG member and the stakeholder contact. The use of a similar guide for each site visit allowed the FFWG members to compare information consistently between the various stakeholder conversations. An example of a Conversation Guide for the site visits is included in Appendix B.

3. Visit Federal Facilities and Conduct Conversations

A site team comprised of at least two FFWG members, an EPA representative, and a contractor from EMS, visited each of the five sites. The entire FFWG was invited to attend the final site visit at Savannah River Site. The team toured the federal facility to learn first hand about contamination concerns, remediation plans, and the facility's public participation efforts. During these visits, the site team also held conversations with about 20 diverse stakeholders at each site. These stakeholder conversations were arranged prior to the site visit, and each contact was provided with a copy of the Conversation Guide to prepare them for the discussion with the site team. To foster collaboration in the stakeholder conversations, those people who agreed to talk to the FFWG were told that the information collected from the conversations would not be ascribed to an individual source and their name would remain confidential, not to be published in any FFWG documents.

The stakeholder conversations were used to verify and augment the background site information collected in the initial information searches, as well as to identify and explore key stakeholder issues. These conversations were facilitated by an FFWG member and the EPA, while the contractor representative took notes to document the discussion.

4. Analyze Data

Following data collection efforts, each FFWG site team reviewed the information collected for their particular site. Data was analyzed for consistencies in how key issues were addressed and common themes that were not

previously identified through the initial data collection effort. If clarification of an issue was necessary, the FFWG site teams collected more information through research or additional stakeholder conversations.

5. Develop Site Visit Report

Upon completion of the data collection and analysis, each FFWG site team prepared an initial draft of its site visit report. The drafts for all five site visits were distributed to FFWG members and appropriate EPA staff for review. Following this review, each Working Group site team revised its site visit report, if necessary, either by collecting additional information or incorporating the comments received by the reviewers. A copy of the second draft of each site visit was reviewed by the FFWG members, and the reports were revised again to address any additional comments. The final versions of the site visit reports are included in Appendix A.

The site visits served as the information and analytical basis for the development of the findings and recommendations contained within this document. To develop the findings and recommendations, the FFWG compared the key issues and recommendations of each site visit to assess whether common themes, variables, or experiences were present.

E. SITE VISIT REPORTS

The purpose of developing the five site visit reports was to examine how federal facilities can better improve their relationship with environmental justice communities. To accomplish this goal, the FFWG decided to investigate the quality of this relationship at the five sites visited by using a model that included both quantitative (e.g., the frequency of communication between the federal facility and affected community) and qualitative (e.g., the nature of the communication) measures. However, each site visit included variations to this model approach. When possible, the FFWG examined the nature of the relationship between the federal facility and community group over time to determine how and why the relationship evolved. Each site visit report is based on the same content outline, which included four sections: 1) site description, 2) impacted communities, 3) identification and analysis of key issues, and 4) recommendations and lessons learned. A brief description of each section of the site visit reports follows.

1. Site Description

The first section of each site visit report provides a brief overview of background information related to the federal facility. This includes a brief history of the site and a description of the nature of contamination. It also includes a discussion of the federal agencies involved in oversight of the site and applicable policy and regulatory background information. Demographic information for each community, when available, is presented and analyzed. This section concludes with a brief overview of community involvement efforts and public participation activities conducted at the site.

2. Impacted Communities

This section provides a description of the environmental justice communities affected by the federal facility. It briefly outlines how each group believes it is affected by the facility and includes a description of each impacted community group. Each stakeholder description includes a brief history of the community, its relationship to the facility, the nature and quality of the relationship, and manner in which the relationship has evolved since cleanup was initiated. This information helps to document the evolution of the relationship between the impacted community and facility through time.

3. Identification and Analysis of Key Issues

This section provides a description and analysis of the relationship between an environmental justice community and federal facility. This description and assessment of the key issues includes, but is not limited to, the following types of information and analysis:

- **Cultural sensitivity**– offers a discussion of the various cultural aspects a federal facility must be aware of and address when dealing with environmental justice communities impacted by the facility, such as: cleanup levels compatible with community values and traditions; an appreciation for culturally sensitive issues/lands (e.g., medicinal plants and lands designated as cultural resources, subsistence hunting and fishing, and waters used for ceremonial purposes); language and cultural barriers; and consideration of the special health needs of more vulnerable community members (e.g., elders, women, and children).
- **Information dissemination/exchange**–presents a discussion of the mechanisms used to provide information to and solicit meaningful input from community groups. Attention is paid to how often federal facilities and communities interact, the method for communicating, and who within each party is acting as a contact point in the relationship.
- **Technical assistance/capacity building**– provides an overview of the methods the federal facility is using to provide training and empowerment opportunities to environmental justice communities.
- **Community involvement and participation**– reviews how federal facilities and government agencies are encouraging community participation, either through traditional site-specific citizen advisory boards or other means.
- **Government-to-government relations and responsibilities**– describes how government-to-government relations between federal and state agencies and sovereign tribal governments are recognized and honored.
- **Economic opportunities/issues**– identifies potential economic benefits being provided or planned for the community, such as training and job creation, to help compensate for the environmental impact of a federal facility.

Additional key issues were also identified through the development of the site visit reports. As research was conducted and analyzed, the Working Group was able to identify additional issues involving stakeholder participation at federal facilities. The Working Group followed-up with additional people after the site visits were conducted to confirm information that was heard during the site visits, to develop new information, or fill-in data gaps.

4. Recommendations and Lessons Learned

This final section of the site visit reports presents key outcomes and the recommendations of the environmental justice stakeholder process at each federal facility. It also provides a summary of the key site visit issues and demonstrates "lessons learned."

IV. FINDINGS AND RECOMMENDATIONS

Included in this section are the report's final findings and recommendations based on an analysis of data collected during the FFWG's five site visits. These findings and recommendations are divided into five sections: A) enhanced community assessments and communication methods needed to improve cultural sensitivity for environmental justice communities; B) access to adequate health services needed; C) additional resources for capacity building needed; D) improved and effective communication needed between facility/regulators and environmental justice communities; and E) new and consistent opportunities needed to help environmental justice communities influence decisions. These recommendations are applicable to all sites

regardless of what stage the cleanup process is in. They need to be considered and possibly reevaluated even if the cleanup stage is nearing completion.

A. ENHANCED COMMUNITY ASSESSMENTS AND COMMUNICATION METHODS NEEDED TO IMPROVE CULTURAL SENSITIVITY FOR ENVIRONMENTAL JUSTICE COMMUNITIES

1. Findings

A fundamental principle of effective communication is knowing your audience. To be effective, federal and state regulators and the lead federal agency responsible for the cleanup must know the local community. Without an in-depth understanding of the community's concerns and cultural influences, efforts to cleanup and/or transfer lands back to individual communities will be hampered and breed distrust. State and federal regulators and agencies must take steps to familiarize themselves with local culture, histories, concerns, and cleanup expectations. At the same time, they also must work to ensure that the local community is aware of and trained in the nuances of federal and state governmental cultures, policies, and procedures. Federal and state regulators must recognize that their own policies and procedures constitute a legalistic, bureaucratic, and often hard-to-fathom culture and should take steps to ensure the local community is educated about that culture.

At several of the FFWG's visits to DoD and DOE facilities, the importance of effective communication was evident. FFWG members repeatedly heard community members state their opinion that the government did not understand nor take their cultural differences into account. The lack of understanding of cultural differences was most evident at the Hanford site and Fort Wingate, where federal regulators displayed a clear misunderstanding of the different tribal cultures with which they were dealing. Cultural sensitivity issues are very important in the government-to-government relations that must occur when dealing with American Indian tribal peoples, especially given the history of how the federal government first gained control of what was once tribal lands and now proposes to transfer the land back to the tribes. At Fort Wingate, DoD officials eventually recognized their lack of cultural understanding and hired a "specialist" to aid them in the land transfer and cleanup process. However, the profound lack of cultural understanding exhibited by the findings of this "specialist" did more damage than good to the relationship between the tribes and DoD. The "specialist" was not educated in the differences between the cultures of the Navajo and Zuni tribes, nor in the differences between Southwest American Indian tribes and other tribes that populate the United States.

Recommendations were made that had relevance to Northwestern American Indian tribes, but not to the Navajo and Zuni tribes at Fort Wingate. The effect of the recommendations was to reinforce the perception among American Indian tribal members that the federal government still does not recognize cultural differences among the various American Indian tribes, and persists in thinking that all American Indians are the same. Despite any good intentions the cleanup team may have had, the amount of damage and ill will created by these recommendations undermined any hoped-for improvements in the team's relationships to the tribes impacted by the site visits. Similar examples were present at the Hanford site, including the view that DOE officials often believe that one tribal member represents the views and can speak on behalf of all surrounding tribes. These are just a few examples that emerged from the Working Group's site visit reports and illustrates why cultural understanding of local communities is so important.

The same lack of cultural sensitivity was observed at other sites where federal and state regulators and/or local advisory boards, including Restoration Advisory Boards (RABs), Site Specific Advisory Boards (SSABs), or Citizen Advisory Boards (CABs), were dealing with groups from other ethnic and/or cultural backgrounds. For example, at the Savannah River Site, some members of the CAB did not see any evidence of environmental justice problems occurring at or near their DOE facility. However, many members of the African-American community repeatedly reported health issues that they linked first to subsistence activities

near the site, such as fishing in the Savannah River, and second, to their employment at the facility. Evidently, members of the CAB were not aware of the concerns of the African-American community living around the facility. Thus, cleanup teams and advisory boards at both DoD and DOE sites must take into account the histories, cultures, and concerns of the surrounding populations, their relationships to the lands on which DoD or DOE facility are located, cultural factors which include such things as ceremonial or cultural subsistence uses of the land and water, and what is important to the community, including land transfer back to the community. Again, without this basic and thorough understanding of local communities, the success of federal land transfer and cleanup projects is at higher risk for failure. Each community and its sub-groups have specific cultural issues that federal and state regulators must be aware of to enhance the value, acceptance, and speed of cleanup efforts.

DoD had made attempts to educate personnel about tribal culture. The agency offers an American Indian Cultural Communications Training for their staff, which includes a three-day course, generally offered four times per year, at DoD facilities located near tribal lands throughout the nation. The course instructors, hired by DoD, include a private, American Indian-based consulting company in New Mexico. A three-hour, condensed version of this course is offered to DoD executive management. The FFWG believes that a three-hour cultural training course is not nearly sufficient time to learn about, never the less begin to grasp tribal issues. The course has generally received excellent feedback from its participants. However, the FFWG found that the course had not been offered at Fort Wingate. At Fort Wingate, the Army provides funding through a cooperative agreement to the Zuni and Navajo tribes to perform cultural resource studies on the site. The Army works closely with the tribe's historical preservation officers on this project.

In addition, DoD works with the Southwest Strategy, an organization that partners with federal, state, tribal, and local governments and the public to restore and maintain the cultural, economic, and environmental quality of life in Arizona and New Mexico. The tribal relations support team works with Native Americans to provide cultural tribal training courses to DoD staff.[2] This training focuses on cultural sensitivity and understanding of cultures, customs, and ways of life of American Indians, but does not address tribal cultural differences that may be found from tribe-to-tribe across the United States.

2. Recommendations

a. Conduct Detailed Assessment of Cultural Differences

Prior to commencement of any major cleanup program, general assessments are conducted of the community. The cleanup team (including the lead federal agency, EPA Regions, states, tribes, and local government) should do a better job of incorporating and addressing cultural differences in their current assessments. Such assessments need to account for cultural, ethnic, historical, and educational factors, as well as work/family ethics and local governing bodies, such as tribal councils and labor union leadership. This assessment also would help to determine local communities need in understanding government culture, policy, and procedures in order to more effectively participate in the cleanup and transfer process. Such an assessment would help focus the necessary and important next steps in cleanup, cultural sensitivity training, and governmental policy and culture training. Both the assessment and training should be incorporated into a formal community relations plan.

This assessment also should make a point to identify culture and regionally unique gathering spots. Each culture may have different gathering spots where broad numbers of the community could be reached. These

[2] Information on these courses can be found at the following web sites:
American Indian Cultural Communications Training Course:
https://www.denix.osd.mil/denix/Public/Native/trainingcourse.html
and the Southwest Strategy Tribal Relations Training: http://www.swstrategy.org/

gathering areas could be places, such as houses of worship, tribal ceremonial gathering sites, or some other area or culturally unique place. Knowing where people congregate will provide the government with an opportunity to enhance communications and the cross training of cultures.

Once the assessment identifies any cultural divides between the local community and federal government, a training plan needs to be developed to educate all parties about cultural differences that may exist among local groups (such as differences between tribal groups, and/or differences between different local ethnic groups, and workers) and local groups about governmental culture, policies, and procedures. Both the government and community need to be included in this education program, which should be reviewed by community leaders first to ensure that all relevant cultural differences have been identified. Two types of training should be conducted for trainers and participants. Training for trainers would allow for the frequent repetition of the cultural training to ensure that any new participants in the process receive the same training as former participants and that cultural sensitivity does not diminish with time or the inevitable departure and replacement of project team members. Repetitive training also helps to refresh the awareness of team members to ensure they do not lose sight of the local community stakeholders and what is important to them.

b. Improved Communication Methods

Once cultural awareness training is completed, effective communication methods need to be developed. Again, each local, ethnic, and/or tribal culture has its own unique style and method of communication. In communities where English is not the prevalent language, documents need to be translated into the common language and translators should be present at all Advisory Board and public meetings, such as at Kelly Air Force Base. For communication, "one size does not fit all." Just as work safety plans are required to be site specific, communications plans must also. The government might wrongly assume that there is no objection to a cleanup activity if few comments are received. Oral communications and the personal interaction and respect are important parts of communication, as are other oral means of communication, such as the radio. The communications plan should detail how the government will take cultural and regional gathering spots into consideration when communicating with the community for maximum effectiveness. This type of site-specific consideration is fundamental to form a proper communications plan.

B. ACCESS TO ADEQUATE HEALTH SERVICES NEEDED

1. Findings

At all the sites the Federal Facilities Working Group visited—and many other sites throughout the nation that were not visited—communities that live near contaminated federal facilities expressed concern that past, present, and future exposure to toxic or radioactive substances from the facility constitutes a significant threat to public health. Living near or working in a federal facility that handles toxic chemicals in large volumes is perceived by environmental justice communities as risky: they consider themselves at risk. They ask the questions: Is it safe to live here? Is my family's health at risk from some form of contamination? Is the contamination affecting my property, my neighborhood? Are dangerous substances being transported through my community? Could leaks, spills, cleanup strategies at the facility contaminate my water? Communities expressed the belief that the federal government owes them for the damage they attribute to the contamination. Even at locations where the principal focus of cleanup programs is to promote the beneficial future use of the property, community groups often focus on possible historic exposure of people downstream or downwind, as well as potential historic exposure of former facility employees, many of whom still live nearby the facility.

Environmental justice communities near contaminated federal facilities, like environmental justice communities elsewhere, tend to have greater health problems on average than the American population as a whole. Community members blame many medical conditions and diseases on exposures to facility contamination, regardless of whether or not there is a medically understood link with diseases.

Government agencies, on the other hand, profess skepticism. The conservative methodology used by the federal Agency for Toxic Substances and Disease Registry (ATSDR) rarely confirms a connection between contamination and elevated rates of disease or illness. Even the reported "cluster" of amyotrophic lateral sclerosis (ALS, or Lou Gehrig's disease) among Kelly Air Force Base workers did not hold up to scrutiny by Air Force researchers. The standard used by ATSDR may be sound from a scientific standpoint, but cleanup decisions should be based on the "potential for environmental or health damage." Even liability in the American legal system is predicated upon only a preponderance of evidence (i.e., 51percent). Administrative actions (i.e., cleanup decisions by a regulator) are only required to be based on "substantial evidence." Both the fields of toxicology and environmental medicine are rapidly changing due to technological improvements in procedures for determining damage. For example, DNA advances have enabled a recent demonstration that arsenic in drinking water at half the current legal limit damages the gene in human cells that is responsible for repairing the cell or killing a cancer cell (Dartmouth Medical School, April 2003). Thus, exposure to naturally occurring arsenic in drinking water for a population may allow a lower level of some other contaminant, such as JP8 Jet Fuel, to cause cancer.

In many affected communities, the public's response to government studies that result in "no findings" is a demand for additional studies and research. Communities want to prove that the facility caused illness or death in the past or is making them ill at the present time. Such a study is currently underway at Kelly Air Force Base; however, the Working Group believes that it is unlikely to prove a statistical impact of exposure, let alone explain individual illnesses.

It is not the goal of the NEJAC to referee claims of such studies or the methodologies for determining health impacts. However, it is extremely difficult to assign causality to public health problems in areas where people are exposed to a variety of hazardous substances, as well as to other conditions that may impact their health.

Therefore, the argument over causality is misplaced. Health studies are useful in their own right, particularly where continuing exposures can be documented in stable populations, but it should not be necessary to prove that people are sick because of exposures to provide them with additional health services. The Working Group believe it is sufficient to show that: 1) a community needs additional or more adequate health care systems; and 2) contamination released from federal facilities might be the past or present cause of a large share of health problems among the site's neighbors or former workers.

2. Recommendations

In the absence of improved universal health care, federal agencies should provide or support additional health services to communities where federal facilities have released significant quantities of hazardous substances into the environment. This assistance could come from a variety of sources, such as the facility, ATSDR, EPA, DOE, DoD, or other appropriate agencies. Such programs would not only prove valuable, but also are likely to build community trust and help contribute to a more constructive working relationship between the communities and the government agencies responsible for cleanup.

C. ADDITIONAL RESOURCES FOR CAPACITY BUILDING NEEDED

1. Findings

The cleanup of major federal facilities is a daunting task. These sites often cover thousands or tens of thousands of acres. In their heyday, they often employed thousands of people. Many state, tribal, and federal agencies are responsible for environmental activities under a long list of laws and regulations. The life cycle cleanup cost for the sites the Working Group studied range from the tens of millions of dollars at Defense Depot Memphis and Fort Wingate to tens of billions of dollars at the Hanford site.

Even the most empowered, educated, and affluent communities with people who have time to participate in cleanup activities full-time find it difficult to stay abreast of these massive cleanup projects. Environmental justice communities, without resources of their own, are at a much greater disadvantage. Environmental Justice community members—even local and tribal governments—do not fully understand the complexity of the framework for and technical aspects of environmental decision making. They usually lack the technical background to understand various technologies proposed at these sites. Some of these technologies are just emerging from government laboratories. Community members rarely have the opportunity to develop independent perspectives on the cleanup activities. And even when they understand what is occurring at a site, they rarely have the resources and time to keep up with the different roles and activities of the various government agencies.

For over a decade, participating agencies and other stakeholders have acknowledged the importance of informed public participation in the oversight of cleanup at federal facilities. Not only do communities benefit when they develop and put them forward their own views, but all other parties benefit since informed, empowered participation tends to be more constructive. The agencies often end up with stronger programs and fewer obstacles.

Nationally, government agencies offer a wide range of programs to enable communities to oversee federal facilities cleanup. EPA's Technical Assistance Grant program provides small grants to community-based organizations at properties on the National Priorities List so they can hire independent technical consultants. The Technical Outreach and Services to Communities program makes university scientists available for the same purpose. DoD hires experts, on behalf of its Restoration Advisory Boards, to review cleanup documents under the Technical Assistance for Public Participation (TAPP) program. DoD's Native American Lands Environmental Mitigation Program provides grants to a limited number of American Indian tribes and Alaskan native villages. DOE, particularly at its large sites, provides technical assistance to SSABs and substantial grant money to impacted federally recognized tribes, as well as targeted assistance and staff work in neighboring environmental justice communities.

Overall, the Working Group applauds these programs, but given the magnitude of the challenges such facilities face, these resources are often insufficient. Some communities and tribes, such as those at Defense Depot Memphis and Fort Wingate, receive meager financial support from federal agencies. Some programs, such as those supporting the review of documents through Kelly Air Force Base's TAPP program and community assistance at Savannah River Site, are limited in scope. Even at the Hanford site, where DOE provides large amounts of funding to three "impacted" tribes, other communities, such as non-federally recognized tribes, Hispanic's, and other minority groups do not qualify for comparable assistance. The TAPP grant is limited to $25,000 per year. Since an expert may not be available locally, travel and lodging for monthly RAB meetings and Partnership meetings may have to be paid out of that grant, allowing for little time to oversee the decision documents.

2. Recommendations

At each major federal cleanup site, EPA and the federal agency responsible for cleanup should actively determine whether affected communities, environmental justice stakeholder groups, and tribes have sufficient capacity to oversee federal cleanup programs constructively and continuously. Funds should be commensurate with the anticipated level of activity, and assistance should be designed to enable communities and tribes to develop priorities, explore issues, and make recommendations independent of the lead agency.

Agencies could design and implement internship programs, like DOE's Environmental Management Intern Program, which places college students from environmental justice communities in universities and community-based organizations to work for the summer. EPA and other federal agencies could set aside

specific amounts of money in their budget each year that could be spent only on a small stipend for the intern. Such internships, in which students would receive class credit, a small stipend, and invaluable work experience, would help empower environmental justice communities while improving communication between government agencies and these communities. The small scale of such a program would make it easy to implement, but the impact would be significant.

D. IMPROVED AND EFFECTIVE COMMUNICATION NEEDED BETWEEN FACILITY/REGULATORS AND ENVIRONMENTAL JUSTICE COMMUNITIES

1. Findings

Real and meaningful public participation in environmental planning and decision making requires an improved and effective communication process among federal facilities, regulators, and environmental justice communities. Many environmental justice communities near federal facilities expressed concern about a lack of communication between themselves and government agencies. This major problem often contributes to a high level of mistrust, variant levels of understanding about contamination and the cleanup process, and minimal community involvement. In order to address environmental justice concerns and promote and secure community involvement, mechanisms must be put in place to ensure that two-way communication is the protocol for working with environmental justice communities.

Public participation has been defined as open, ongoing, two-way communication, both formal and informal, between a facility and an impacted community. The purpose of this interactive communication is to enable both parties to learn about and better understand the views and positions of the other. Public participation provides a means for identifying and gathering diverse opinions, perspectives, ideas, concerns and values. The process is a way to help agencies make better and more informed decisions. It also allows the concerned community the opportunity to provide concrete input that can influence the final decision and outcome. Effective communication is essential to any public participation and community involvement strategy and program of activities.

The findings of the Working Group support the five characteristics of a successful community involvement effort reported by the 1996 FFERDC report[3]: transparent, open, interactive, inclusive, and responsive. Often, environmental justice communities concur that for these characteristics to be truly effective, facilities need to develop a communication structure in which public concerns are communicated to both headquarters and field office levels. This structure should be able to facilitate public stakeholder and environmental justice communities' input into all levels of the decision-making process. Processes embracing those characteristics would encourage public support of the cleanup decisions and likely lead to a more efficient and cost-effective cleanup program.

Facility personnel and regulators must find ways to work with environmental justice communities to ensure that: information is being shared back and forth; environmental justice communities see how their input is used or not used; issues and problems are identified in a timely and consistent manner; and feedback is received by the environmental justice communities. Environmental justice communities impacted by activities of DOE, DoD and other federal agencies feel they are entitled to be fully "engaged" in the processes and activities associated with cleanup at their site. Two-way communication can be a real basis for actualizing public participation and substantive community involvement. Public participation that includes a two-way communication process can generate many benefits to the facility and the community that is their neighbor. Some of these benefits include:

[3] Final Report of the Federal Facilities Environmental Restoration Dialogue Committee: *Consensus Principles and Recommendations for Improving Federal Facilities Cleanup*, April 1996

- **Building credibility**– those people involved have an opportunity to influence the process and decision, creating an interactive process where commitments are honored leads to credibility.
- **Creating understanding**– two-way communication can improve understanding on all sides – the facility helps with the technical aspects while the community raises its questions and concerns. In partnership all parties can work to understand the impact of proposed activities.
- **Minimizing delays**– two-way communication does not guarantee support, but addressing issues up front can often prevent: litigation, protests, demonstrations, and an angry environmental justice community.
- **Affirming environmental justice**– attempts to address any identified potential disproportionate human health and environmental impacts, and creating an environment where environmental justice communities feel that they are being treated fairly, leads to less frustration and a willingness to work with the process of problem solving cleanup issues.

Increased communication is an important step in realizing full community engagement. Public participation practitioners and environmental justice communities believe enhanced communication and work with local communities are important elements leading to improved environmental and human health. Real success requires more than one-way communication. Involving the community early and at every step of the process, providing opportunities for input, responding to issues and concerns, demonstrating a willingness to be inclusive and recognizing environmental justice concerns and cultural differences is necessary to address decade's old complaints from the environmental justice community and to ensure viable, community supported cleanups. Environmental justice communities often want to play a role in identifying problems, processes, and priorities in their community that have been affected by the facility. They also want input in identifying such problems and finding solutions.

The advisory boards at federal facilities, such as SSABs, CABs, and RABs, often serve as the sole, yet should not be the only, form of two-way communication between the facility and environmental justice community. The advisory boards were developed as a formal mechanism used for public stakeholders representing various sectors (including academia, local government, community, current/former workers, regulators, business, etc.) to provide advice to federal facilities on environmental matters. These groups were commissioned to serve as conduits of the general public's voice and to provide site-specific advice. The FFERDC recommended that facilities establish advisory boards to provide a structure for more interaction between the facility and community.

The advisory boards do not necessarily reflect the opinions of the environmental justice community and are in many ways disconnected from that community. Although, many times, only several community members are allowed to serve on an advisory board, the facility and/or other board members often believe they represent the general interest and concerns of the entire community. Communication between the board and the facility may be strong, but often the board or community representatives do not reflect the actual opinions of the broader community. Many environmental justice community residents feel the board is an exclusive group that does not directly seek their individual input, nor do they represent their own views and perspectives.

2. Recommendations

Federal facilities, in collaboration with environmental justice communities, should develop an effective communication system (two or three-way) among the facility, regulators, and the impacted community. The system should improve communication and information sharing among the involved agencies, environmental justice communities, regulators, and other interested parties.

The FFWG sees a need for greater interaction between the advisory board and entire community, not just a few community representatives that serve on the board. As well, the advisory board should be a representative of the community and its views, not the federal agency or facility. Community residents reaffirm that advisory

boards should complement, rather than duplicate or supplant, broader site level cleanup public involvement initiatives. Not all environmental justice community members have the time (especially DOE's Advisory Boards) or desire to commit to serving on a formal board, yet believe they should have a voice in the process. Facilities must ensure the availability of opportunities for residents who are not members of the board to participate fully in discussions and decision making regarding cleanup.

Environmental justice communities, as well as many federal agencies, support the need for communication vehicles outside of the advisory boards. A myriad of methods should be used to interact with and engage the public. Effective vehicles for two-way communication between the facility and regulator, tribes, and the environmental justice community include community workshops, trainings, and community-based organized activities. Environmental justice communities can work with the facility to identify the best ways to communicate with each other. There is no cookie-cutter approach that will work for all sites and communities, and particularly not for all tribes.

The *Environmental Justice Public Participation Checklist for Government Agencies*[4] provides a framework for considering communication vehicles and strategies that can assist facilities in establishing a two-way interactive process. This checklist includes the following:

- Identify key individuals who can represent various stakeholder interests. Learn as much as possible about stakeholders and their concerns through personal consultation, phone, or written contacts. Ensure that information-gathering techniques include modifications for minority and low-income communities (for example, consider language and cultural barriers, technical background, literacy, access to respondents, privacy issues and preferred types of communications).
- Solicit stakeholder involvement early in the policy-making process, beginning in the planning and development stages and continuing through implementation and oversight.
- Develop co-sponsoring/co-planning relationships with community organizations and provide resources for their needs.
- Establish a central point of contact within the federal agency to assist in information dissemination and problem resolutions, and to serve as a visible and accessible advocate of the public's right to know about issues that affect health or environment.
- Regionalize materials to ensure cultural sensitivity and relevance. Make information understandable and readily accessible (for example, access for the handicapped and sight and hearing impaired). Unabridged documents should be placed in repositories. Executive summaries and fact sheets should be prepared in layman's language. Whenever practicable and appropriate, translate targeted documents for limited English speaking populations.
- Schedule meetings and/or public hearings at times that are accessible and user-friendly for environmental justice stakeholders. Consider time frames that do not conflict with work schedules, rush hours, dinner hours and other community commitments that may decrease attendance. Consider locations and facilities that are local, convenient, and represent neutral turf. Ensure that the facility meets the Americans with Disabilities Act standards. Provide assistance for hearing-impaired individuals. Whenever practical and appropriate, provide translators for limited-English speaking communities. Advertise the meeting and its proposed agenda in a timely manner in the print and electronic media. Provide a phone number and/or address for communities to find out about pending meetings, issues, enter concerns, seek participation, or alter meeting agendas.
- Consider other vehicles to increase participation of environmental justice stakeholders including: posters and exhibits; participation in civic and community activities; public database and bulletin boards; surveys; telephone hotlines; training and education programs; workshops; and materials.

[4] *Environmental Justice Public Participation Checklist for Government Agencies: The Model Plan for Public Participation* developed by the National Environmental Justice Advisory Council, a Federal Advisory Committee to the U.S. Environmental Protection Agency, Publication Number EPA-300-K-96-003.

- After holding a public forum in a community, establish a procedure to follow up with concrete action to address the communities' concerns. (This will help to establish credibility for your Agency as having an active role in the federal government.)
- Hold workshops, seminars, and other meetings to develop partnerships among agencies, workers, and community groups. (Ensure mechanisms are in place for implementing partnerships via cooperative agreements.)
- Provide effective outreach, education, and communications. Findings should be shared with community members, with an emphasis on being sensitive and respectful to race, ethnicity, gender, language, and culture.
- Assure active participation of affected communities in the decision-making process for outreach, education, training and community programs, including representation on advisory councils and review committees.
- Provide "open microphone" format during meetings to allow community members to ask questions and identify issues from the community.

However, it is possible for an agency to check off every item in the checklist without really soliciting the participation of environmental justice communities, which can result in communities perceiving a lack of justice. Agencies should use the same type of "worse case" analysis for community involvement that are used for physical remedies. For example, when installing a pump and treat systems, agencies calculate the maximum amount of liquid they can extract, not just the average or minimum. The same should be true for community relations. Agencies should aim to develop working relationships with their strongest critics in communities, not just their best friends or who they consider "average" community members.

In general, community involvement processes should provide opportunities for the environmental justice community and general public to receive clear, comprehensive information about cleanup activities, and the mechanisms and structure to affect these decisions. Such efforts are an integral part of cleanup programs and should be required. Community involvement efforts should reach out to the broadest possible range of stakeholders and seek their involvement through a variety of effective and innovative methods appropriate to their specific community.

E. NEW AND CONSISTENT OPPORTUNITIES NEEDED TO HELP ENVIRONMENTAL JUSTICE COMMUNITIES INFLUENCE DECISIONS

1. Findings

Environmental justice communities near federal facilities often complain about not having influence in the decision-making process associated with cleanup. The site visits very poignantly indicated that there is a profound sense that the knowledge, experience, and input of nearby residents and environmental justice organizers are not recognized nor valued by the facility and regulators. At the site visits, many community members shared stories about how their attempts to provide substantive information to the site officials on various issues were ignored, not addressed, or totally rejected. The prevalent view of the environmental justice community was that the advisory board serves as the public's vehicle for influencing the federal facility decision-making process and very little attention by the federal government is given to the general environmental justice community.

At the site visits, a major effort was made by the Working Group members to talk with community residents to assess their perspectives on the level of engagement of the facility with environmental justice. Some community members expressed a desire to be able to influence how the facility makes and implements its decisions regarding cleanup and other issues. Community leaders, tribal leaders, and environmental justice organizations are adamant about needing to be substantively involved in the process and having the power and

opportunity to change, modify, or adjust proposed actions, policies, funding priorities, and other decisions that will be made and implemented.

Access to information is critical in enabling communities to participate in and monitor facility cleanup activities, raise questions of concern, and become real partners in devising plans to address contamination, while satisfying neighborhood residents that their health and environment is being protected. Positive results often occur when communities are brought into the process early, treated respectfully, and have adequate resources to independently evaluate the facility's cleanup proposals.

Almost without exception, environmental justice communities believe that influence means the "power to produce an effect" in the cleanup remedies at federal facilities. Environmental justice communities support the concept that public participation provides a means for government agencies and industries to gather the most diverse collection of options, perspectives, and values from the broadest spectrum of the public, allowing them to make better and more informed decisions. In addition, public participation benefits residents by creating an opportunity to provide comment and influence decisions.

Environmental justice communities supported the idea that every community must be included in making decisions about their health and their environment. They believe that all levels of government and industry must "develop strategies to ensure that low-income and communities of concern have access to information about their environment and that they have an opportunity to participate in shaping governmental policies that affect their health and their environment."[5]

In August 2001, Administrator Christine Todd Whitman affirmed EPA's "firm commitment to the issue of environmental justice and its integration into all programs, policies and activities." Administrator Whitman committed to ensure "greater public participation in the Agency's development and implementation of environmental regulations and policies."[6]

2. Recommendations

The lead federal agency, state, and EPA should create and implement new and consistent opportunities (outside of the advisory boards) for environmental justice communities to provide input into the decision-making process for federal facilities and demonstrate how their recommendations and concerns are considered and integrated into the final outcome. The community must have some degree of control and influence in the decision-making process.

The processes for community involvement should be determined by a partnership between the facility, regulators and community. The ability of the community to participate and help make decisions may rest on the facility providing more technical and financial resources to develop capacity. This is not only likely to improve the cleanup program in the short run, but will also assist in building a working relationship necessary to conduct long-term stewardship.

[5] *Final Report of the Federal Facilities Environmental Restoration Dialogue Committee (FFERDC): Consensus Principles and Recommendations for Improving Federal Facilities Cleanup*, April 1996

[6] Administrator Christine Todd Whitman's Memorandum Regarding EPA's Commitment to Environmental Justice, August 9, 2001

V. CONCLUSION

These recommendations will go a long way toward addressing environmental justice issues at contaminated federal facilities. EPA should develop a strategy for implementing these recommendations in a timely fashion. In an effort to address some critical issues not included this report, the Federal Facilities Working Group invites NEJAC to consider the following action items at federal facilities with environmental justice communities:

- establish a work group to review federal facilities in Alaska;
- designate a seat for a member from an environmental justice community at federal facilities on the Executive Council of NEJAC; and finally
- create a Federal Advisory Committee to examine federal facility issues.

While it is recognized that EPA has a particular role at federal facilities, it is important for EPA to work with other federal agencies, including DoD and DOE, to implement the recommendations contained in this report. Finally, EPA is strongly encouraged to explore with other agencies additional mechanisms for continuing dialogue between other federal agencies, environmental justice communities, and responsible federal parties, not only to implement recommendations in this report, but to address environmental justice issues that may arise in the future.

APPENDIX A:

SITE VISIT REPORTS

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FORT WINGATE SITE VISIT REPORT
NATIONAL ENVIRONMENTAL JUSTICE ADVISORY COUNCIL'S
FEDERAL FACILITY WORKING GROUP
SEPTEMBER 2003

A. SITE DESCRIPTION

The Fort Wingate Army Depot sits among the red rocks along US Interstate 40, next to the Navajo Nation and the Zuni Pueblo Tribe in New Mexico, approximately 14 miles east of Gallup. Fort Wingate was established in 1918 as a munitions depot around an old cavalry post. Until 1993, munitions were transported to Fort Wingate, disassembled, and their contents were removed (generally by hot water wash). The wash water containing explosive compounds was pumped into storage and drying tanks. The overflow was drained into leaching beds. The site also was occasionally used as a launch site for missiles destined for White Sands Missile Range, 150 miles to the south.

In 1988, the Base Realignment and Closure (BRAC) Commission recommended the closure of Fort Wingate. At that time, operations began to be scaled down and functionally ceased in the mid 1990s. At the time of its selection for base closure, Fort Wingate comprised 22,120 acres. Due to past waste handling practices, the site is contaminated with a large variety of contaminants, including explosives, explosive residues and their chemical constituents, unexploded ordnance, PCBs, pesticides, and other typical industrial contaminants.

The transfer of lands comprising Fort Wingate paints a very complex picture. While all of the land (22,120 acres) is closed and is slated for return to the Navajo and Zuni tribes, the government has not facilitated a speedy transfer. Approximately one third of the Fort Wingate property (primarily the middle third, and some smaller parcels) are currently occupied by the Missile Defense Agency and are off limits to the land's eventual recipients (the Native Americans), with no set date for this occupation to cease. Likewise a sizable portion of the existing industrial land is currently occupied by a DoD-sponsored contractor and not available for immediate transfer. Finally, the former open burn and open detonation areas and safety zone (approximately 1,200 acres) are not being transferred (the Army is proposing retaining ownership and not allowing use or occupation) due to cost concerns. These areas are full of culturally significant places that would be off limits to the Navajo and Zuni tribes indefinitely.

B. IMPACTED COMMUNITIES

1. Navajo Nation

Fort Wingate contains hundreds of sites rich in cultural heritage and historical significance to both the Navajo Nation and the Zuni Pueblo. Over 200 Navajo ruins have been discovered on the property, including several earth-covered, eight-sided traditional dwellings called "Hogan's" and several sweat lodges. There is also widespread evidence of Navajo sheep herding. Fort Wingate was also one of the sites where the Navajo were interred for four years when many Navajo were rounded up in 1863 for what is remembered as the "Long Walk" to Fort Sumner. Many died and were murdered on the Long Walk; only 3,000 of the original 6,000 survived and were allowed to return to the Fort Wingate area in 1868. Because of this history, a school and some of the older buildings on the fort have a kind of infamous historical significance to the Navajo. Because high unemployment rates have long been a problem for the Navajo Nation, the tribe anticipates that the return of Fort Wingate lands will generate needed economic development.

2. Zuni Pueblo

The Fort Wingate property also includes the headwaters of the Nutria River, sacred river of the Zuni Pueblo, and the site called Upper Nutria Village, considered one of the most ancient villages of the Zuni. For centuries

these lands served as a hunting and gathering area for the Zuni. There are several hundred trails still in evidence from those activities. Over 600 archeological sites have been recorded by surveyors, including 200 ruins traceable to the Anasazi ancestors of the Zuni.

Like the Navajo, the Zuni have experienced high rates of unemployment and are also looking forward to the possibility of economic development that will benefit the tribe with the return of Fort Wingate lands. However, because these lands contain some of the sites considered most sacred to the Zuni, they want the Army to return the land to them in the cleanest condition possible.

C. IDENTIFICATION AND ANALYSIS OF KEY ISSUES

The Federal Facility Working Group (FFWG) site visit team identified several issues that related to and/or were contributing factors to the perceived environmental justice problems that could complicate the final closure and transfer of the Fort Wingate lands to the community. These issues are:

- Lack of understanding on the part of the Army about Navajo and Zuni cultures;
- Minimal public involvement;
- Lack of emphasis on the expeditious cleanup and closure of Fort Wingate by the Army;
- Lack of regulatory drivers;
- Confusing closure schedule (aggravated by continuing use by the military or military contractors);
- Lack of understanding of the closure and transfer process;
- Cultural differences between the Navajo Nation and the Zuni Pueblo and possible different expectations between the tribes about cleanup levels; and
- Navajo and Zuni inclusion in the Base Closure Team

Each of these issues is further explained in the following sections.

1. Lack of Cultural Understanding

The Army and other state and federal agencies (the government) could be said to have a culture consisting of bureaucracies and prescribed methods of procedure with which they are comfortable. However, there is often a lack of understanding of those procedures, or a lack of understanding of this culture, on the part of the Navajo and Zuni tribes. In addition, there also are differences between the Navajo and Zuni cultures and little recognition by the Army and the state and federal agencies of the differences between the tribes. These issues appeared in almost every conversation the site visit team conducted.

Overall, on the government's side, there appeared to be a lack of understanding of American Indian cultures in general, and Navajo and Zuni cultures specifically, and how to properly account for them. Government processes and systems are largely designed around European-American-based systems of rule and land ownership. As treaty-recognized sovereign nations, American Indian tribes maintain as one of their most sacred principals the right of self-governance and self-determination. They also claim the right to determine the best use of their own resources. Based on U.S. laws and customs, the federal government is claiming the right to return lands in various stages of cleanup, most often suggesting that the land will be returned to an industrial standard of cleanup.

However, both the Navajo and the Zuni feel that their basic rights as treaty-recognized, sovereign nations are being ignored. The government will by default take away their right to govern themselves, if the lands are not restored to the same condition they were in when they were appropriated from the tribes. This is not the first time this issue has come up in discussions surrounding a cleanup concerning an American Indian tribe. At one of the first meetings of what became the Federal Facilities Environmental Restoration Dialogue Committee, top officials of the Yakama tribe (near the Hanford site in Washington State) argued that the system of federal

cleanups must legally and morally take into account tribal sovereignty and treaty rights. That view was incorporated into Federal Facilities Environmental Restoration Dialogue Committee's (FFERDC's) recommended "risk plus other factors" system of setting priorities. It was also argued that the U.S. government's historical policy of land expropriation and genocide against Indian nations should be a factor in risk assessments. That is, if the U.S. government has taken much of a tribe's land, decimated its population, and wiped out most of its culture, risk assessments should elevate the significance of the impact of contamination on the few people and small productive territories that remain. (For example, if a tribe is down to 800 people, environmental threats that might make 100 people sick might require greater attention than a threat posed to 100 people in New York City.)

At Fort Wingate specifically, the government and the Navajo and Zuni tribes have different, culturally-shaped ideas about the standards to which the land will be cleaned up and this has the potential to lead to environmental justice problems. For example, both Navajo and Zuni members noted that parents of both tribes would have no hesitation about taking a child to work if the need arises because it is culturally acceptable to take children to work. However, state and federal agencies involved in the Fort Wingate land transfer have not taken this into account in their proposals for cleanup to an industrial standard. In an industrial standard, normal risk assessments do not account for children being present or playing on the floors of the facility. This is just one example of the kinds of cultural misunderstanding that is aggravating the transfer process at the site.

A second major cultural problem is language and concepts contained in languages. The government can readily assimilate to the concept of varying degrees of clean (industrial, wildlife, or residential use), while American Indian tribes do not readily accept or subscribe to the same concepts. In one conversation, a Zuni member of the Navajo/Zuni Memorandum of Understanding (MOU) team explained that one of the most frustrating things he was called upon to do was to explain to tribal elders and other members of the tribe that cleanup can be done to varying degrees. To propose a cleanup that is anything less than the same standard in which the land was when it was appropriated suggests disrespect of the earth and to these elders. The armed services tend to see base closure cleanup as a kind of "double-dipping." Despite federal statutes to the contrary, they feel that the giveaway of federal land, buildings, and infrastructure is enough. Cleaning it up is extra. There may be facilities where this attitude is somewhat justified. At some locations, communities are receiving valuable airfields or other facilities at no cost. However, at other facilities, and Fort Wingate is a prime example of this, the federal government took clean land with little or no compensation to the tribes, and now wants to return it dirty. At Fort Wingate specifically, the value added by Army activity is minimal. Despite the land-use-based nature of cleanup goals under the hazardous waste laws, at Fort Wingate, the Army has an obligation to return the land to the tribes in its original environmental condition, as much as practical.

Another problem at Fort Wingate is that there are large numbers of Native American elders who do not read the English language. Language barriers complicate the cleanup and land transfer process when one party does not have the same understanding of words and concepts as the other party. Repeatedly during our site visit, we heard that people of both the Navajo and Zuni tribes were not informed about, or did not understand, the bureaucratic procedures or environmental statutes that are being used to govern the restoration process, either because of the language barrier or because the BCT or RAB meetings were conducted in the highly technical language of the federal government or of science. Without a certain basic level of technical and scientific understanding, many of the Navajo and Zuni we spoke to indicated that they felt unprepared to participate in the highly specialized discussions about the land transfer and cleanup process and thus they felt barred from full participation in the restoration process. This is not to say that there are no members of the tribes prepared to engage in technical or specialized discussions. The NEJAC FFWG site team was highly impressed by the number of the people from both tribes who have educated themselves about the technicalities and science of the process and are now participating successfully at the BCT and RAB meetings. This section is meant only to help explain why participation at the BCT and RAB meetings is still so limited when it comes to representation from the Navajo and Zuni tribes.

Perhaps the best example we can provide of the depth of the cultural misunderstanding that the Navajo and Zuni are facing in their dealings with the Army is illustrated by an assessment, conducted by the Army, of the risks posed by the activities and contamination at Fort Wingate to Navajo and Zuni cultures and lifestyles. The Army hired an outside consultant to perform this assessment. This consultant had performed a similar risk assessment at another site in the Pacific Northwest. The people we talked with during the site visit told us that when the assessment was completed, it addressed lifestyle factors that are not applicable to the Navajo and Zuni who live in the areas surrounding Fort Wingate. One of the major errors that the Navajo and Zuni called to our attention was that the Army's risk assessment report addressed factors that have nothing to do with the region in which Fort Wingate is located and the Navajo and Zuni tribes live. Indeed, the Army's assessment report addressed the risks posed to salmon runs and subsistence fishing, yet did not address sheep herding! Neither the Navajo nor the Zuni subsistence fish and there are no salmon streams in the high desert of New Mexico. However, sheep herding is still a way of life for many living on the reservation. The Navajo and Zuni were deeply insulted that their cultures were misrepresented and lumped in with other American Indian Nations, as if all indigenous peoples are the same. One Zuni member put the cultural understanding problem very simply:

> "We have been in this area for 2,000 years and expect to be in this area and on this land for another 2,000 years. If the Government understood this, they would return to us the pristine lands that were taken over 100 years ago."

2. Minimal Public Involvement

The public is minimally engaged in the cleanup process at this site. This is not for lack of numerous attempts by the government to engage the public, but is most likely the result of a combination of factors, including cultural considerations and the length of time the restoration process is taking. One factor is that because the lands are scheduled for transfer exclusively to the Navajo and the Zuni, non-native peoples of the region see no reason to participate. Members of the public (in and around the City of Gallup) originally participated in the RAB meetings (in the 1980s and early 1990s), but when the decision was made to transfer 100 percent of the land to the Navajo Nation and the Zuni Pueblo, participation by non-tribal members diminished to a near zero rate.

The Navajo and the Zuni place emphasis on listening and learning from the elders and leaders appointed by the tribe. In that respect, when the BRAC process first began, both tribes appointed people to become members of the Navajo/Zuni Memorandum of Understanding team (MOU team). MOU team members wrote and were responsible for disseminating a document outlining the Navajo and Zuni land use plans for Fort Wingate lands, which was approved by both the Navajo and Zuni governing bodies. Members of the MOU team also have been largely responsible for educating themselves about the technical and scientific factors involved in the land transfer and cleanup process, attending the RAB and BCT meetings, and taking the information they gather in those meetings back to the Navajo Chapter Houses and to the Zuni villages where they further disseminate the information to members of the tribe.[7] One of the most common complaints heard from both the Navajo and Zuni people was that there was little effort on the part of the Army to disseminate information to the Chapter Houses or the villages, some of which are located in very rural areas. We also heard that the RAB or BCT meetings are always held at times when it would be difficult for people to travel to Gallup and return home before dark. Many of the Navajo and Zuni tribal members we talked with thought that the Army should make

[7] The Navajo Nation is divided into five "Agencies," which are then subdivided into "Chapter Houses." Each chapter house has representatives who are responsible for disseminating information to the people who live in that area. Fort Wingate lands sit in the Eastern Agency and the chapters most affected by appropriation of Navajo lands to establish Fort Wingate are Bread Springs, Church Rock and Iyanbito. The Zuni are organized into villages.

a greater effort to get the information to the people, rather than always expecting the people to travel to Gallup to get the information from the Army.

An additional factor in the low public involvement is the length of time the restoration process is taking. Tribal members said they are concerned about what is going on. However, they see no evidence of the restoration being accomplished in a timely manner, nor do they see evidence of the land being transferred in the near future. Many have lost interest and now rely more than ever on the tribal/chapter/village leadership to keep them informed. Should they see evidence of the restoration process picking up speed or evidence that the land was close to being transferred, there would most likely be a commensurate increase in public participation.

3. Lack of Regulatory Drivers

One potential environmental justice issue at Fort Wingate is the lack of regulatory standards and drivers for certain contaminants on the site. The major contaminants are explosive munitions (unexploded ordnance) and explosive/propellant related contamination (perchlorate). Neither substance is clearly regulated under a federal environmental statute, such as CERCLA or RCRA. As a result, the Army is struggling to determine what an appropriate standard for a response level should be. The restoration of UXO-contaminated areas can be very costly and without a legal reason to respond, the Army states that it is taking a cautious approach and delaying any cleanup to a residential standard until it gets a mandate, in the form of a regulatory driver, to do so. This was the argument given by the Army for why it chose to forego restoration of the former open burning and open detonation grounds (OB/OD) and retain ownership of these areas. The Army argues, in general, that the hazardous waste laws do not require cleanup or regulatory oversight on former munitions ranges. However, the Armed Services do not generally make this argument at OB/OD sites at closed facilities. Even on Western Vieques in Puerto Rico, the Navy is treating the OB/OD area as a cleanup site. The site team's reading of the Military Munitions Rule, promulgated by EPA around 1997, is that the OB/OD area at Wingate is a hazardous waste treatment facility subject to RCRA and/or CERCLA.

The decision to forego cleanup of the OB/OD area and to retain ownership of that area is not readily accepted by the Navajo and the Zuni, as many members of both tribes desire to use that 1,200-acre area. The OB/OD site contains culturally significant areas and is an excellent area for grazing sheep and cattle. In fact, sheep and cattle frequently find their way inside the restricted area due to fences being cut (another instance of the misunderstanding between cultures; the Army accepts land restrictions as a viable solution for the OB/OD area and the tribes do not).

Perchlorate contamination is another area where the lack of a regulatory standard is causing concern. In the arid climate of Fort Wingate, any groundwater contamination is a grave concern. Currently there is no cleanup standard for perchlorate, which the Army is using for its rationale for taking no action. The end result is additional environmental justice concerns for the tribes. This begs the question, "Are the native Navajo and Zuni tribes being treated differently with respect to the perchlorate and explosive groundwater contamination than other groups?" Cape Cod, Massachusetts, for example, is known for having a great number of summer homes for residents of the Northeast United States. When a nearby bombing range was found to have contaminated the drinking water aquifer with explosives and breakdown products, the military provided free weekly deliveries of bottled drinking water to the residents while the problem was being studied. However, at Fort Wingate, as stated above, no action is being taken to address the perchlorate plume.

The State of New Mexico is in the process of preparing a closure permit for the base. In discussions with their representatives, they are viewing the permit as the regulatory driver that the Army has been lacking. When issued, it may resolve this issue.

4. Lack of Emphasis on the Expeditious Cleanup and Closure of Fort Wingate by the Army

The FFWG site team observed that in the Base Closure Team meeting and during several conversations, DoD representatives stated to stakeholders that funding was extremely tight, and, due to lack of regulatory drivers, there was no urgent and compelling need to expedite the cleanup; in essence, Fort Wingate was "not a priority." However, they also said that when the New Mexico Environment Department issues the closure permit, it might move the base up on its cleanup priority list.

While such statements about funding availability and the bases' priority in DoD's eyes are likely true, the Army has been unsuccessful in convincing Navajo and Zuni stakeholders that they are being treated in the same fair and consistent manner as other (non-Indian) stakeholders at other BRAC bases. Questions were repeatedly raised by the Navajo and Zuni about why Fort Wingate does not receive an equal level of funding and priority as other BRAC bases (Fort Ord, California, was mentioned). No one could explain this discrepancy. As a result, the feeling that there is environmental injustice at Fort Wingate is increasing.

One other factor that may or may not impact the emphasis on an expeditious closure is the lack of a local BRAC Environmental Coordinator (BEC) from the Army.[8] The Army assigned a BEC to the site who is from the Tooele Army Depot in Utah, which is more than 500 miles from the site. This great distance may have potential impacts on the levels of understanding and empathy with the local cultures by the BEC, not to mention that being located far from Fort Wingate tends to dissipate any sense of urgency about finishing the cleanup. It seems that a BEC who works elsewhere might allow other projects to take a higher priority in the workload than the Fort Wingate site. It is not possible to say from our limited involvement with the site if this is the case, but it certainly appeared to the team that such a circumstance might have an impact on whether or not environmental justice issues were being addressed in a timely manner.

5. Confusing Closure Schedule

The closure schedule has caused great environmental justice concern among the Navajo and Zuni tribes. The BRAC Commission selected the base for closure in 1988 and 15 years later, in 2003, the tribes have yet to receive any land in transfer for use.[9] In the years since the decision to close the installation occurred, the DoD) has allowed other DoD uses to occur on the site. A small portion of the industrial areas and storage bunkers have been leased to TPL, Corp., a private firm under contract to DoD, for the demilitarization of ammunition. A second, larger area has been leased by the Missile Defense Agency (MDA) to provide a missile assembly and launch area to test missiles that are targeted at White Sands Missile Range. At this time, it appears that the end date of TPL, Corp., and MDA's occupancy at the site is vague and uncertain. Their uses of the site will delay and impact the transfer process.

The community voiced three major issues regarding the tenants on the base. Continued use of the site seems to be delaying the restoration and transfer process. It is unclear who will be responsible for any contamination caused by these current tenants and, finally, some stakeholders wondered why—if they are supposed to use the land for like purposes (as stated by the Army)—they do not have possession of the land and are not allowed to have income from renting the property to TPL, Corp. instead of DoD receiving that benefit.

[8] Due the extremely limited duration of the site visit and the lack of long-term involvement in the site by team members, is it impossible to definitively state if the lack of a local BEC is creating issues.

[9] One parcel has been transferred to the Bureau of Land Management (BLM), but BLM will not transfer any land to the Navajos or Zunis until the entire base is restored and transferred to BLM.

The lack of a clear end to occupancy by DoD organizations and the concerns expressed above contribute to the frustration of the Navajo and the Zuni over the restoration effort and contribute to the decreasing involvement in the transfer process because the tribes feel they are not receiving a fair deal.

6. Lack of Understanding of the Closure and Transfer Process

Many of the Navajo and Zuni people expressed the belief that the Army's sudden change in its use of environmental laws is unfair to the Navajo and Zuni people and difficult to understand. During the site visit, it was reported that during the 15 years that have elapsed since Fort Wingate was selected for closure, the Army first used a CERCLA-like process as the basis for its decisions, then a CERCLA process, and finally a RCRA environmental response. In the future, they may be switching back to a CERCLA process. The nuances of these laws are complex and confusing, even to those who work with them on a regular basis. It is easy to see how switching frameworks is confusing to a stakeholder who is not versed in these statutes. This has added to the perception that an environmental justice is occurring at this site.

Another aspect of this issue relates to the physical land transfer process. The Army is viewing the closure of Fort Wingate strictly as a federal-to-federal transfer. The reality, given the ultimate goal of placing the land into trust for the Navajo and Zuni, is that a series of transfers will occur, both within the federal government and eventually outside the federal government, to allow the placement of the lands into trust.[10] This extra series of transfers entails additional reviews and standards, above those that the Army envisions in a simple federal-to-federal transfer. The Bureau of Land Management, the Navajo and Zuni tribes, DOI, and the Bureau of Indian Affairs voiced concerns that the restoration would not be sufficient to allow the ultimate series of transfers to occur and that the Navajo and the Zuni would be denied the end-product (usable lands) they envision.

7. Conflicts between American Indian Nations

The Navajo Nation and the Zuni Pueblo people have signed a Memorandum of Understanding (MOU), which broadly details how the tribes plan to jointly use Fort Wingate lands. But both tribes fear that once the land is transferred, there eventually may be conflicts between the tribes over land use, given their very different histories on this land, their different cultures, and some articulated differences in expectations over the standard of cleanup. In general, the site visit team heard from the Zuni people that they wanted the land to be cleaned up to residential standards so the tribe would be free to make its own decisions about land use and would not be restricted in how they used the land because certain parcels are "dirty." This expectation was shaped by the fact that the Zuni have several hundred sacred ancestral sites and the headwaters of a sacred river located on Fort Wingate. Thus, based on their history and culture, they wish to respect that land by having it cleaned up to the highest level possible. At the same time, they expect that some of the land will be put to use for economic development.

We heard similar sentiments among the Navajo who were hoping to have the land returned for grazing. But in general, we heard more Navajos state that they were willing to discuss certain parcels being returned to an industrial use standard since they anticipated using the land only for economic development and not for residential use.

[10] The lands currently occupied by the Army will return to the jurisdiction of Secretary of the Interior. This transfer will be accomplished by publication in the *Federal Register* of a "Public Land Order" signed by the Secretary of the Department of Interior (DOI). DOI's intent is that these lands become "trust" lands for the Navajo Nation and Pueblo of Zuni and will transfer the lands to the tribes, pursuant to the legislative authority. The tribes then transfer the lands back to the Federal Government to be held in "trust" for the tribes.

The most important concern, however, is that both tribes fear a "Navajo-Hopi Land Dispute" type situation. This is a reference to the long conflict between the Navajo and Hopi over lands at the center of federal legislation, which pits one tribe against the other in a dispute over land use, which appears to some to benefit a multinational coal mining corporation over the tribes. There is fear that if Fort Wingate lands are not cleaned up to the highest standards, which would allow each tribe to use the land as they each see fit, then the federal government will once again be responsible for pitting one tribe against the other, as has been the case in the Navajo-Hopi land dispute. Just for the sake of conjecture, let us say that the Zuni want the land cleaned up to the highest standards so that it will be as similar as possible to the state it was in before the appropriation of the land. But let's say the federal government chooses to cleanup the land only to an industrial standard, which would favor only industrial-types of economic development. If this happens, it could be construed as an environmental injustice to the Zuni. Thus, the cleanup standards are perhaps at the center of what many, in both tribes, see as a potential cause of conflict between the tribes over land use. Most of the tribal members the site team talked with very much expressed the wish to avoid any future conflicts with neighboring tribes. To avoid future conflicts, both the Navajo Nation and the Zuni Pueblo must be seen as the differing cultures that they are. It behooves the government to strive to understand and accommodate these differences and clean the land to standards that would promote continued cooperation between the tribes rather than promote possible conflicts.

8. Native American Inclusion in the Base Closure Team

Recently, the Army has made a more concerted effort to include representatives from the Navajo Nation and Zuni Pueblo on the Base Closure Team. This allows the tribes to have a much more involved role in the process than would be possible through a more traditional participation on a Restoration Advisory Board or public comment on documents. This also aids the ability of the representatives to carry information back to tribal members for dissemination.

D. FINDINGS: SUCCESSES AND CHALLENGES

While the NEJAC FFWG site visit team heard many negative issues and concerns, there were also several positive issues that emerged from the visit. They are:

- The help that EPA's Representative (Chuck Hendrickson) provides.[11]
- The recent measures the Army has taken to encourage public involvement.
- The Army's limited steps toward training key individuals in American Indian Cultural awareness.

The main challenges that are facing the federal government in the restoration and return of Fort Wingate lands to the tribes are: 1) the recognition and incorporation of American Indian cultural traditions and practices more fully into the process; 2) the restoration of a sense of urgency into the cleanup and transfer of the property; and 3) the establishment of State of New Mexico regulatory standards for all contaminants at the site so that the Army can move forward with the cleanup and transfer process in a more timely manner.

E. RECOMMENDATIONS AND LESSONS LEARNED

While many issues were raised during the site visit process, a number were beyond the scope of this group's authority. These issues have been passed on to our EPA leads for further action. As a result of the site visit, the site team recommends several ways to improve public participation with the goal of reducing environmental justice concerns.

[11] Numerous personnel named Chuck Hendrickson as a tremendous asset to the project, and as someone willing to go the extra step to ensure stakeholders understand what is happening and the ramifications of the action.

1. **Conduct formal training for all parties in each party's cultures and processes.** By establishing a more formal training program, to be conducted periodically throughout the process, each key individual involved in the process can be educated about the cultural issues and technical and scientific practices and terms they will encounter through the process. The increased awareness of cultural differences will lead the project team to better outcomes. For example, the Army may recognize that traditional institutional controls and deed restrictions will not work and select more appropriate remedies. The Navajo and Zuni representatives in the process may learn about the environmental statutes that will be applied and consequently increase their effectiveness in providing input and influencing the restoration and transfer process.

2. **Publish and gain commitment from DoD and other parties to a firm restoration and transfer schedule.** By having a firm schedule that is adhered to, the cleanup of the site becomes a higher priority among all stakeholders and keeps people's interest and involvement. Ultimately, a firm schedule should result in a more fair and just outcome due to the more effective involvement of all parties.

3. **Better dissemination of information.** The site team would like to emphasize that the Navajo and Zuni are still very much an oral culture, and while an elder may be able to speak English, he or she sometimes cannot read it. The site team was clearly told by the Navajo and Zuni that they prefer having all important information and schedules disseminated via radio, since radio airwaves reach those living on rural sites on the reservation and can be broadcast in English, Navajo, or Zuni. This is a recommendation that may apply to a number of sites around the nation that concern American Indian stakeholders, as radio is the medium of choice for dissemination of information on almost all reservations. In addition, DoD should publish simple, one- or two-page fact sheets on a variety of topics, such as the current status, schedule, and specific projects related to the restoration and transfer of Fort Wingate. These fact sheets should be published monthly, include many illustrations to account for people with limited reading skills, be written in plain language, and be published in the languages of all stakeholders. The fact sheets should be widely disseminated to interested parties. They should be posted in community gathering areas (such as the Navajo chapter houses and Zuni villages) and published in local papers. The fact sheets are not meant to replace the RAB or the BCT but to better inform the people about the current project status. Increased dissemination of this kind encourages increased public participation in the restoration process.

4. **Continue and broaden the involvement of key parties in the BCT.** One of the successes of this site is the involvement of representatives from the Navajo Nation and Zuni Pueblo on the BCT. It also has served as a double-edged sword since the involvement has diminished RAB participation due to the perception that appointed representatives are doing a good job, so the public does not need to participate. DoD must make a greater effort to monitor participation in the RAB after bringing key stakeholders onto a BCT, and take appropriate actions to encourage higher levels of RAB involvement.

5. **If possible, ensure the BRAC Environmental Coordinator (BEC) is local.** Wherever possible, the installation should have a project team consisting of members who are from the local area. This will aid in understanding the culture, nuances, and concerns of the local community. It should also help to avoid competing work assignments that might lower the priority for work on the site (thus voiding the out-of-sight, out-of-mind syndrome).

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HANFORD SITE VISIT REPORT
NATIONAL ENVIRONMENTAL JUSTICE ADVISORY COUNCIL'S
FEDERAL FACILITY WORKING GROUP
SEPTEMBER 2003

A. SITE DESCRIPTION

The Department of Energy's (DOE) Hanford site is a 586 square-mile site in southeastern Washington State. Construction of the site began in 1943 as part of the Manhattan Project to produce plutonium for nuclear weapons, such as the bomb that destroyed Nagasaki, Japan, in World War II. The Hanford site produced approximately 54 metric tons of plutonium for defense purposes, which is about half of the total defense plutonium produced by the United States. About 10 percent of the site was devoted to plutonium production, with the remaining 500 square miles serving as a buffer zone for security reasons. This buffer zone includes a 51-mile stretch along the Columbia River, known as the Columbia River Corridor, which has remained isolated and undeveloped. Since the site is so large, it impacts a large area and population. When the site was identified in 1943, approximately 1,500 people, both Anglo-American settlers and American Indians with long ancestral ties to the land, were forced to leave the area.[12]

The Hanford site is located in Benton County, Washington. Franklin County is directly east of Benton, Yakima County is directly west of Benton, and Grant County is directly north of Benton. The State of Oregon is south of Benton county. The cities of Richland and Kennewick are south of the Hanford site and are located in Benton County. Pasco neighbors Richland and Kennewick to the east, but is located within Franklin county. See Table One for additional demographic statistics of nearby cities and counties.

By 1964, a total of nine nuclear reactors were eventually built along the banks of the Columbia River. When weapons material production ended in 1989, the site's mission shifted from production to waste cleanup. DOE's Richland Operations Office and Office of River Protection, the U.S. Environmental Protection Agency (EPA), and the State of Washington Department of Ecology (the Tri-Parties) signed the historic Hanford Federal Facilities Agreement and Consent Order. This agreement outlines a plan to bring the site into environmental regulatory compliance while cleaning up the Hanford site's legacy wastes. This landmark kicked off what is known today as the nation's largest environmental cleanup program and the world's largest radioactive waste treatment activities.

By the time weapons production and nuclear power research were halted in the late 1980s, the Hanford site was left with hundreds of square miles of contaminated soil and groundwater and millions of gallons of highly radioactive waste stored in underground tanks. In October 1989, four areas at the Hanford site (Areas 100, 200, 300, and 1100) were placed on the National Priorities List (NPL). Areas 100, 200, and 300 currently remain on the NPL. Area 1100 has been cleaned up, deleted from the NPL (September 1996), and transferred to private ownership for light and heavy industrial use. The Hanford site cleanup is regulated by the formal Tri-Party Agreement between DOE and its regulators: EPA and the State of Washington Department of Ecology (also known as the Tri-Parties). This agreement covers all aspects of the Hanford site cleanup, including community involvement and public outreach.

No defense production occurs at the Hanford site today. Most of the cleanup work is concentrated on the Hanford site's central plateau. There are 177 underground tanks that hold 53 million gallons of high and low-level liquid radioactive and chemical wastes. 67 single shell tanks are known or suspected to have leaked, releasing about 1 million gallons of liquid waste into the soil. Solid and liquid wastes in barrels were buried in trenches, pits, or unlined landfills. As the containers break down, contaminants enter the soil. Cooling and waste water from the reactors was directed to storage ponds, trenches, cribs, or drains. Some facilities

[12] *Hanford History*, DOE Richland Operations Office, March 2003 RL F97-015

disposed of waste directly to the soil, which contaminated the groundwater. About 80-square miles of the Hanford site's groundwater has contamination levels above federal and state drinking water standards. Some of those pollutants reached the Columbia River. The major chemical contaminants include nitrate, chromium, and carbon tetrachloride. Major radioactive contaminants include uranium, technetium-99, tritium, strontium-90, and iodine-129. The Hanford site is thought to be one of the most contaminated sites in the United States, and possibly the world.[13]

Vitrification (turning waste into sturdy glass) is one of DOE's solutions to address current contamination. The Hanford site's toxic tank wastes are blended with molten glass and placed in stainless-steel canisters. The waste remains stable and impervious while its radioactivity is expected to dissipate over hundreds to thousands of years. The construction of the Hanford site's Waste Treatment Plant Project is just one of the cleanup activities currently underway.

Cleanup actions by the River Corridor Project are expected to reduce the amount of additional contamination on site from reaching the Columbia River. This project includes 50 burial grounds, 579 wastes sites, 357 excess facilities, and 7 plutonium production reactors adjacent to the Columbia River. This project is a high priority for the surrounding tribes and Hanford site stakeholders. Thus, the Tri-Parties agreed to an accelerated schedule for the River Corridor Project. Cleanup schedules were determined and the cleanup has already begun.[14]

Area 100, part of the River Corridor, will be cleaned up to residential use areas, with the hope that the tribes will be able to exercise their ancestral rights on this land. Area 300 and the central plateau will be cleaned up and available for industrial use. Area 200 will most likely remain under permanent control of DOE, never transferred for residential or industrial use outside of the Agency.

With the exception of two burial grounds requiring the deployment of new technologies and ongoing remediation of groundwater, DOE intends to complete cleanup of the Columbia River Corridor by 2012. Cleanup of the remainder of the site is expected to be complete by 2035. DOE intends to set aside a large part of the Hanford site to preserve both ecological and cultural resources. This preserve will be managed by Department of Interior's U.S. Fish and Wildlife Service, and be known as the Hanford Reach National Monument. This monument will provide opportunities for American Indians to exercise traditional religious and cultural activities, as well as protect and preserve significant cultural resources. Currently the Hanford Reach National Monument includes approximately 195,000 acres.

1. Public Participation and Outreach Activities

The Tri-Party members conduct numerous outreach and public participation activities and believe public involvement is essential to the successes of Hanford site cleanup. DOE, as the lead agency responsible for cleaning up the Hanford site, plans and conducts the greatest number of these activities. The Tri-Party Agencies publish the Public Involvement Community Relations Plan, which outlines the public participation processes they implement and identifies several ways the public can participate in the Hanford site cleanup decision-making process. They also distribute a wide variety of hard copy and electronic information materials.

DOE spends a great amount of resources on the Hanford Advisory Board (HAB), DOE's Site-Specific Advisory Board (SSAB). This Board is a Federal Advisory Committee Act group, which was created in 1994 by the Tri-Parties. The primary mission of the HAB is to provide informed recommendations and advice to

[13] *DOE C3T Groundwater Strategy*, Ecology Pub 02-05-015
[14] *Strategic Initiative 1: Accelerate Columbia River Corridor Cleanup by More Thank 20 Years to 2012*, DOE Pub D0208024.6

the Tri-Parties on selected major policy issues related to the cleanup of the Hanford site. The HAB produces an annual progress report, which includes HAB work and recommendations throughout the year.

Demographic Characteristics of Nearby Counties and Cities and Population for Affected Tribes, Hispanics, and Other Communities*

	Benton County	Franklin County	Yakima County	Grant County	Tri-Cities			State of Washing-ton
					Richland	Kennewick	Pasco	
Total Population 2000	142,475	49,347	222,581	74,698	38,708	54,693	32,066	5,894,121
White	122,879 *(86.2%)*	30,553 *(61.9%)*	146,005 *(65.6%)*	57,174 *(76.5%)*	34,662 *(89.5%)*	45,355 *(82.9%)*	16,919 *(52.8%)*	4,821,823 *(81.8%)*
Black	1,319 *(0.9%)*	1,230 *(2.5%)*	2,157 *(1.0%)*	742 *(1.0%)*	530 *(1.4%)*	624 *(1.1%)*	1,033 *(3.2%)*	190,267 *(3.2%)*
American Indian/ Alaska Native	1,165 *(0.8%)*	362 *(0.7%)*	9,966 *(4.5%)*	863 *(1.2%)*	293 *(.8%)*	507 *(0.9%)*	248 *(0.8%)*	93,301 *(1.6%)*
Asian	3,134 *(2.2%)*	800 *(1.6%)*	2,124 *(1.0%)*	652 *(0.9%)*	1,571 *(4.1%)*	1,161 *(2.1%)*	567 *(1.8%)*	322,335 *(5.5%)*
Hawaiian/Pacific Islander	163 *(0.1%)*	57 *(0.1%)*	203 *(0.1%)*	53 *(0.1%)*	41 *(0.1%)*	59 *(0.1%)*	46 *(0.1%)*	23,953 *(0.4%)*
Hispanic	16,575 *(11.6%)*	21,639 *(43.9%)*	76,027 *(34.2%)*	21,459 *(28.7%)*	1,632 *(4.2%)*	7,889 *(14.4%)*	17,267 *(53.8%)*	403,916 *(6.9%)*
Median Household Income 1999	$47,044	$38,991	$34,828	$35,276	$53,092	$41,213	$34,540	$45,776

Source: U.S. Census Bureau, Census 2000 Summary

* Note that the total number for the six races may add to more than the total population and that the percentages for the six races may add to more than 100 percent because individuals may report more than one race.

The HAB is comprised of 31 members plus alternates from diverse interests throughout the northwest region of the United States. Of the minority representation, there is only one non-Anglo-American person on the HAB, a Hispanic who just recently joined. Several tribal members choose to serve as *ex-officio* members to the HAB. Many regulators and some HAB members believe a more concerted effort is needed to make the HAB more ethnically diverse, and a greater effort is needed to retain the minority currently serving.

The Hanford site also has a Natural Resource Trustee Council, which is a collaborative working group chartered to address natural resources impacted by Hanford site releases of hazardous substances. DOE and the other Tri-Party members also conduct a variety of other outreach and public participation activities, such as hosting a web page devoted to the Hanford site cleanup, conducting public meetings, using a speakers bureau to make presentations throughout the area, holding public comment periods, and issuing numerous fact sheets. For the past year, the Tri-Parties also has held several "State of the Site" public meetings throughout the region to educate and inform the community of the Hanford site activities. These meetings have been well-attended and were considered successful.

B. IMPACTED COMMUNITIES

The Hanford site stakeholders are situated throughout the entire northwest region, including the States of Washington, Oregon, and Idaho, primarily because the Columbia River flows through the Hanford site. The site impacts communities down river from the Hanford site, as well as those communities downwind of the property. Consequently, the site generates an enormous amount of interest and media attention due to its enormous size, types of contamination, and general nature of the site. The basic stakeholders include the federal and state regulators (EPA and State of Washington Department of Ecology), tribal members, local

municipalities, local citizens, Hanford site workers, HAB members, interest groups, grass root organizations, recreational and subsistence fishermen, developers, and farmers, among others. The HAB represents many of the diverse stakeholders interested in the cleanup of the Hanford site. The primary environmental justice stakeholders are the local American Indian Tribes and a permanent and migrant Hispanic community. This report only focuses on a select number of key stakeholders, including the HAB and the two key environmental justice populations, the local Hispanic community, and the American Indian Tribes directly impacted by the site.

1. Hanford Advisory Board

The HAB, the site's DOE-sponsored Site Specific Advisory Board (SSAB), is an independent, non-partisan, and broadly representative body with a balanced mix of the diverse interests that provide cleanup recommendations to DOE. In general, HAB membership is comprised of retirees or people who work for public interest or grass root, non-profit organizations that track the Hanford site's cleanup activities. The time commitment to fully participate on the HAB excludes most people since the HAB meets regularly throughout the northwestern region. The HAB established a Public Involvement Committee, which offers DOE policy advice on issues concerning public involvement. The HAB conducts some basic outreach activities. Several HAB members believe that DOE expects the HAB to be more active with outreach and education, while the HAB's view is that their major role is to provide consensus advice to DOE. The public interest and grass root groups that employ some of the HAB members also conduct extensive outreach and education about the Hanford site, although this outreach usually represents the view of the particular interest group.

2. Hispanic Communities

A migrant and permanent Hispanic community is the second largest racial group that resides near the Hanford site in Yakima County. Anglo-Americans are the largest ethnic group. Hispanics comprise 43.9 percent of the population of Franklin County, 34 percent of Yakima County and 11.6 percent of Benton County, where the Hanford site is located. Clearly this community is grossly underserved and under-represented. This group of people could potentially be at risk from past Hanford site activities since they have and continue to rely on subsistence farming, fishing, and hunting in the region. There has been little effort to educate and empower this community to participate in the cleanup process. No one individual has come forward to represent the Hispanic community. It seems that the Hispanic community is under-represented and under-served. The Tri-Party members made an effort to recruit a Hispanic person to serve on the HAB; however, this person was only able to serve HAB for a short time. Recently, another recruiting effort was made and a new Hispanic person joined the HAB.

The Hispanic community receives little information about the Hanford site, little to none of which is translated into Spanish. Many feel that the disseminated information is too technical for most community members to understand due to the nature and complexity of the site. Recently, DOE posted signs along the Columbia River in both English and Spanish, which advised boaters to stay in their boats and not come near the shore of the site. This is the first time DOE has posted warning signs in Spanish.

3. American Indian Tribes

Several tribes have been impacted by Hanford site activities. DOE determined that three federally recognized tribes have been the most impacted: the Nez Perce Tribe, Confederated Tribes of the Umatilla Indian Reservation, and Yakama Nation. These tribes receive funds from DOE annually through a cooperative agreement authorized by the Nuclear Waste Policy Act, which permits eligible states and tribes to apply for funding. Only states and federally-recognized tribes are eligible to apply under the Act. These three tribes applied to the program and were determined to be "impacted" by the Hanford site. As a result, each tribe receives approximately $1 million each year in grant funding. In the past, the tribes used this money to

strengthen the capacity and infrastructure for their environmental programs, which allowed them better participation in the cleanup process. The Wanapum People are an American Indian tribe, but is not a federally-recognized one, which means that DOE cannot provide them direct grant funds. However, many DOE contractors make an effort to work with the Wanapum People under subcontracts for work at the site. The tribes desire that DOE return the site to its original, pristine state, but also realize that this is most likely not possible. At this time, they are not able to exercise their customary rights, which include hunting, gathering, fishing, and pasturing of livestock, on the site. Only for special occasions does DOE grant them access to the Hanford site. More information about each of the tribes is provided below.

Nez Perce Tribe- is located in Idaho. The tribe has few culturally significant areas on the Hanford property, but greatly used the lands for hunting, fishing, and gathering. The tribe has "cultural teams" that visit the site to monitor site cleanup activities and ensure sensitive areas are not disturbed. The tribe used funds from DOE to strengthen its environmental management program and developed numerous educational materials, including videos and brochures. One of the tribe's biggest concerns is the groundwater plume under the site, which they believe is not being adequately addressed by DOE. Another concern is that the current soil cleanup levels being used at the Hanford site are inadequate for tribal uses. Although the soil may be safe for health purposes, it is not necessarily adequate for environmental or tribal cultural uses.

Confederated Tribes of the Umatilla Indian Reservation- is located west of the Hanford site. According to DOE, the tribe has expressed concern about the transportation of hazardous waste to and from the Hanford site through their land. In response, DOE conducted a planning exercise with the Umatilla and also helped them strengthen its fire department. The Confederated Tribes of the Umatilla developed a cultural diversity and sensitivity training course and offered it to DOE, EPA, and Washington Department of Ecology project and field staff, but many people did not take this training. Those who attended the training said it was excellent and highly recommended it.

Yakama Nation- is located west of the Hanford site. The tribe wants "meaningful consultation" with DOE for the Hanford cleanup, yet DOE does not provides this opportunity. The tribe indicated that DOE tries to sell its decisions to them, as opposed to consulting with them and then making decisions. In addition, the Yakama are concerned about the safety of subsistence fishing in local waters. The Yakama, as do many of the other tribes, rely on fishing for much of their diet and are concerned about potential health risks. They are also concerned about DOE's risk assessment process, which does not adequately address the tribe's elevated amounts of fish consumption and plant uses. Another concern of the Yakama Tribe is that the plants they gather for medicinal purposes on the Hanford property are contaminated. The tribe has tested plants they have gathered on the Hanford site to determine if they are contaminated.

Wanapum People- which is located west of the Hanford site, seem to be the most directly impacted by the site, though it is not at federally recognized tribe. The Wanapum People have historic ties to the site. They were forced to leave their ancestral homes, which were located on the site, in the 1940s when the Hanford site was confiscated by the federal government. Many of their sacred sites, including cemeteries, vision quest locations, and sites for root ceremonies, are still located on the Hanford property. The Wanapum are actively involved at the site and are allowed onto the property with prior permission from DOE. Because the Wanapum's are not a federally recognized tribe, they are not eligible to receive grant funding from DOE. However, some of DOE's contractors subcontract with individuals of the tribe to review cleanup documents. This provides some resources for increasing the participation in the cleanup process, but does not seem sufficient. In some respects, the Wanapum's involvement is more hands-on because they are subcontractors and work directly with field staff, which would not be possible if they received a DOE grant.

C. IDENTIFICATION AND ANALYSIS OF KEY ISSUES

The site visit team identified several issues that related to and/or were contributing factors to the perceived environmental justice problems at the Hanford site. These issues are described in detail below.

1. Lack of Minority Representation on the Hanford Advisory Board

The make-up of the HAB somewhat reflects the ethnic background of the northwest region, which is predominantly Anglo-American, but only one non-Anglo-American, a Hispanic who just joined the HAB, serves on the HAB while there is a large Hispanic community that lives near the Hanford site. The HAB recognizes its lack of ethnic diversity and has made efforts to recruit Hispanic members, but without long-term success.

Two American Indian tribes decided to serve as *ex-officio* members of the HAB due to their unique government-to-government consultation relationship with DOE. Consequently, they attend HAB meetings but do not participate as active members of the HAB, except when a tribal issue arises (*e.g.*, tribal members participated on the Exposure Scenario Taskforce).

Since the HAB is not ethnically diverse, it is difficult for its members to adequately consider the non-Anglo-American concerns. Consequently, the Hispanic community living and working near the Hanford site is under-represented and under-served. Because of their reliance on subsistence fishing, hunting, and farming, a greater effort is needed to ensure that the concerns and issues of the Hispanic community are brought to the attention of both the HAB and the Tri-Party members.

2. Frequent Turnover of DOE Hanford Staff

DOE project and field staff positions seem to have a high turnover rate, which has had a negative impact on the relationship between those who hold these positions and other stakeholders. As soon as project and field staff develop solid working relationships with stakeholders and get comfortable with them, they are often transferred into new positions. Stakeholders often have to educate new DOE staff on various cultural issues and other concerns. This situation particularly impacts the American Indian tribes, who find they constantly need to educate new project managers about tribal concerns and build new relationships just when they begin to "feel comfortable" with DOE project managers. This frequent turnover has generally had a negative impact on the relationship between DOE and the tribes.

3. Insensitivity to the Cultural and Social Concerns of the Impacted American Indian Tribes

DOE provides cooperative agreement funding to three federally recognized American Indian tribes and subcontracts with one other to strengthen the capabilities of the tribes to effectively participate in the Hanford site cleanup process. In addition, DOE established a Hanford Cultural and Historic Resources and Tribal Program to promote cultural sensitivity and allow the tribes to continue their traditional customs. Since the Hanford site is on lands ceded to the United States by the Yakama Nation and the Confederated Tribes of the Umatilla in the Treaties of 1855. These tribes, as well as the Nez Perce, have treaty fishing rights on portions of the Columbia River. These tribes reserved the right to conduct traditional hunting, fishing, root collecting, vision quests, gathering, and other activities. Staff maintain records of historic areas of the Hanford site and surveys are conducted to ensure DOE compliance with Section 110 of the National Historic Preservation Act. DOE also keeps the tribes apprised of cleanup actions that may have a potential impact on tribal-sensitive areas. In addition, several tribes have cultural teams that closely monitor cleanup activities at the Hanford site. DOE provides tribal access to the site; however, this access is not unrestricted. The tribes must make prior arrangements with DOE for access to the Hanford site. DOE issued access badges to several, but not all, tribal

members. DOE recognizes that the tribes want unrestricted access to their tribal lands on the Hanford site, but feel they are responsible for protecting the property and ensuring the safety of others.

Despite the existence of a multifaceted tribal program, many people believe that DOE is insensitive to tribal concerns and cultural beliefs. Although DOE's tribal program appears to be well designed and with good intentions, it seems that its implementation has not been effective. There are several reasons for this conclusion:

- Project and field staff focus on regulatory requirements, not tribal concerns. Field staff incentives are based on whether cleanup milestones are met, not on whether the staff interacts well with the tribes.
- Project and field staff are transferred frequently, which requires the tribes to build new relationships and educate the new field staff about their concerns and beliefs.
- DOE does not want to recognize that each tribe is unique and needs to be treated as a single entity. From the tribal perspective, DOE seems to want a single person to represent all of the impacted tribes. However, each tribe has its own practices, views, traditions, and concerns. Consequently, each tribe wants DOE to deal directly with them, not with a representative of multiple tribes.
- Contractor incentives undermine good working relationships and do not promote an effective working relationship with the tribes. For example, during construction, if contractors find human bone fragments, cleanup work stops and tribal representatives are brought on site. If fragments are confirmed, the tribes remove the bones and bury them elsewhere. This delay frustrates the cleanup contractors because it can cause them to miss contractual deadlines; every day the project is temporarily delayed, money comes out of the pockets of the contractors.

4. Inaccurate and Incomplete Risk Assessments

Human health and ecological risk assessments are not adequate, particularly for environmental justice communities. American Indian tribes require broader risk assumptions than the general public do. For example, the tribes impacted by the Hanford site consume more fish than the typical human health risk assessment assumptions. In addition, tribes burn sagebrush in their sweat lodges. If the roots are contaminated, the burning of the sagebrush becomes another exposure pathway. Many of these unusual pathways or consumption patterns are not adequately considered in risk assessments. This is one reason why some tribes refuse to accept existing risk assessment studies. In addition, cumulative risk is not considered. For those who rely on subsistence living for their main food supply source, like some American Indian tribes and Hispanics, this method of living is central to their culture. If their fish is radioactive or contaminated, often they are not simply able to go to a grocery store and purchase other fish. This way of life is necessary to continue their existence as a people.

5. Term Limits for HAB Members

DOE is considering requiring term limits for HAB members. HAB members oppose this because of the significant time it takes to develop individual expertise on Hanford site cleanup issues. They feel that it does not make sense to force a member to leave the HAB due to the many years it takes them to learn and comprehend cleanup issues. They say that removing members and replacing them with people who are less informed of Hanford site issues is extremely counterproductive. Many HAB members feel this is an attempt by DOE to undermine their effectiveness and ultimately dissolve the HAB.

D. FINDINGS: SUCCESSES AND CHALLENGES

For those less educated and those who do not have a great deal of time and energy to spend in understanding the issues surrounding the Hanford site, it is difficult understand the complexities of the site. The Tri-Parties conduct outreach, education, and public participation activities, the HAB performs some outreach, and the

Hanford site generates an enormous amount of media coverage, both television and print. However, only a minimal effort has been made to educate under-represented and environmental justice communities, such as Hispanics, migrant farm workers, and lower income, poorly educated communities. While there is a great deal of information available to anyone interested in making the extra effort to learn about Hanford site cleanup activities, these groups appear to be underserved.

Citizen groups seem to not have taken advantage of EPA's Technical Assistance Grants, which can be used to hire technical advisors to help them interpret and understand the complex technical materials produced. This program provides funds to citizen groups affected by Superfund National Priorities List (NPL) sites and are used by citizen groups. Since Hanford has three sites listed in the NPL, three Technical Assistance Grants could be made available.

Environmental justice community members are still skeptical of previous and current health threats from the Hanford site. Even though the State of Washington held an independent assessment of environmental radiation at and around the site from 1998-1999 and found that communities near the Hanford site are safe and only very low levels of radionuclides were detected off-site[15], people from the environmental justice community are still concerned.

Given the complexity and enormous size of the Hanford site's contamination and cleanup, the HAB appears to be the most effective means of involving stakeholders in the cleanup process. Since the HAB represents many grassroots organizations in the Northwest, it provides an avenue for a variety of interests and views. The HAB has been able to effectively influence DOE cleanup decisions. However, the time commitment for reviewing documents, attending HAB meetings, and being kept up to speed with cleanup activities is not easy. Consequently, this excludes most people from participating on the HAB, especially lower income, less educated community members. As a result, HAB membership generally has not included under-represented, environmental justice stakeholders, such as Hispanic and other low-income, poorly educated communities. This may change with the recent addition of a Hispanic man to the HAB. If the HAB does not succeed in recruiting and retaining its members from environmental justice communities, it should make a greater effort to learn about the concerns of these stakeholders and factor those concerns into its recommendations to DOE. This can be accomplished by working with DOE to identify leaders within those communities and ask them about their communities concerns.

DOE, EPA and the State of Washington Department of Ecology have not made a sufficient effort to identify and address the concerns of environmental justice communities. Efforts have been made in the past, but with limited success. More needs to be done to include these communities in the cleanup process. Although they may not be able to provide technical comments on cleanup methods, they can express concerns about decisions that may directly impact them, such as exposure pathways and risk assessments.

The American Indian tribes impacted by the Hanford site participate in the cleanup process and seem to be benefiting from DOE cooperative agreement funding (Nez Perce, Umatilla, and Yakama) and subcontracts (the Wanapum People), which help them build their environmental program capacity and infrastructure, and better participate in the Hanford site cleanup process. Learning the regulatory process also allows the tribes to participate more effectively in the process. In addition, DOE established a tribal program to protect the cultural resources of the tribes and promote understanding between DOE and the tribes. Despite the good intentions of the program, DOE and contractor field personnel are not always sensitive to tribal concerns or needs. Although the program seems well designed, it fails because of inadequate training and turnover of field staff.

[15] *Looking for Radiological Contaminants Near Hanford*, Washington State Department of Health, DOH Pub 320-024 2/2000

E. RECOMMENDATIONS AND LESSONS LEARNED

Several recommendations have been suggested to improve the public participation and outreach activities at the Hanford site, particularly to the American Indian tribes and the Hispanic communities. These recommendations are provided below.

1. **Require mandatory cultural diversity and sensitivity training for all project and field staff of DOE, EPA, and the Washington Department of Ecology.** The training would be most effective if it were designed and presented by people in the impacted communities, such as tribal members or someone from the Hispanic community. The Confederated Tribes of the Umatilla developed a similar type of training course and offered it to DOE, EPA, and Washington Department of Ecology project and field staff, but many people did not take this training. Those who attended the training said it was excellent and highly recommended it. Requiring this type of training for new staff would assist them to better understand tribal practices and customs and provide a vehicle to stronger communication with the tribes.

2. **Continue to offer financial resources to the American Indian tribes either through grants, cooperative agreements, or subcontracting mechanisms.** This program has been immensely successful in helping the Tribes better understand the Hanford site's issues and participate in the cleanup process. If possible, a similar funding mechanism with the Hispanic community may increase participation, as well. For example, a Hispanic person could work as a subcontractor to review site documents. In lieu of offering financial resources, independent technical assistance should be offered to those communities in need of understanding technical issues at the site.

3. **Do not impose term limits on HAB members.** Currently, no term limits exist for members of the HAB; however, DOE is considering imposing term limits. HAB members objected to this plan because of the "learning curve" associated with the Hanford site. It takes a great deal of time for new HAB members to become fully educated about the Hanford site and the cleanup process. It is counterproductive to remove people from the HAB, particularly after they have spent considerable time and effort to become familiar with site issues and problems.

4. **To ensure the HAB reflects diverse interests and ethnic groups, new members should be recruited to join and existing members should be encouraged to remain on the HAB, particularly members from minority or environmental justice communities.** Since the HAB has had and will probably continue to have influence over the cleanup of the Hanford site, it is important that the views of minorities and environmental justice communities be factored into any recommendations developed by the HAB. If it is not possible to recruit members from these groups, the HAB, working with the Tri-Party members, should conduct outreach to these groups to learn about their concerns and needs. This can be done by holding events in those communities or interviewing community leaders.

5. **Perform more targeted outreach activities in minority and environmental justice communities and continue to conduct these activities.** To their credit, the Tri-Party members have made an attempt to work with these communities. However, it seems they stopped trying to reach these communities because prior events were not well attended. However, since these communities are impacted by the Hanford site, particularly because of their proximity to the site and reliance on subsistence fishing, hunting, and farming, it is critical that these communities are advised of the potential risks posed by the Hanford site's contamination and asked for their input. Just because previous events have not been well attended does not mean the community is not

interested in Hanford site issues. Rather, the event probably was not effectively promoted or announced. There are several effective mechanisms for reaching minority and environmental groups. An effective method is to hire local communication consultants or specialists (from the environmental justice community), who are familiar with the community, to perform outreach. Other options include: working with community leaders to schedule and plan events; translating fact sheets and other documents into plain language and an easy to read format in the appropriate community language; and continue trying until the correct approach is identified. Basically, more needs to be done to inform and solicit input from minority and environmental justice communities. Targeted and continual efforts are needed to effectively reach this segment of the impacted population.

6. **Establish a formal internship program for minority, low-income, community high-school and college-level students to work in offices of DOE, EPA, or the Washington Department of Ecology.** Through this type of internship, students could receive class credit, a small stipend, and invaluable work experience. A program such as this could build good will in the community and improve communication between the regulators and the impacted communities.

KELLY SITE VISIT REPORT
NATIONAL ENVIRONMENTAL JUSTICE ADVISORY COUNCIL'S
FEDERAL FACILITY WORKING GROUP
AUGUST 2003

A. SITE INFORMATION

Kelly Air Force Base, in San Antonio, Texas, hosts one of the Air Force's most costly programs. In the southwestern section of the city, Kelly lies within a low-income, predominantly Hispanic community. Opened as a military airfield in 1916, Kelly served in the latter half of the 20th century as one of the Air Force's largest industrial facilities, servicing large-frame aircraft and engines. At its height, it employed 30,000 people.

Approved for closure in 1995, Kelly formally "closed" in 2001. Although the airfield itself was transferred to neighboring Lackland Air Force Base, the Greater Kelly Development Authority (GKDA) negotiated expanded civilian use of the runways, and private DoD contractors took over many of the maintenance facilities on the base. At the time of base closure, the Air Force employed approximately 10,000 people. The Air Force takes pride that it was able to help many of these employees find jobs with new employers negotiated through GKDA during base closure, and that GKDA has set a goal of 21,000 future on-site employees.

The Air Force counts over 750 environmental sites and activities, including 35 Installation Restoration Program sites, at former Kelly Air Force Base. Contaminants include, but are not limited to, volatile organic compounds such as trichloroethylene, heavy metals, lead-based paint, asbestos, radionuclides, and fuels. Off-site concerns include a four-mile-long set of shallow groundwater plumes containing low concentrations[16] of volatile organic compounds, and a golf course landfill that may be the source of polychlorinated biphenyl (PCB) contamination in Leon Creek. Other concerns include Union Pacific Railways, Leon Creek itself, soil contamination, current and past air emissions and other contamination in landfills.

Kelly's environmental program began in 1982. To date, the Air Force has spent over $283 million on environmental activities at Kelly, and it expects to spend $260 million more. Since closure was announced in 1995, the Air Force has conducted extensive activities in support of the reuse of the property. It plugged industrial floor drains, removed over 16 miles of industrial waste lines from service, and installed over 10,000 feet of sanitary sewer system piping. It reached an agreement with the redevelopment authority to pay for the characterization and disposal of soil with low contamination concentrations.

Off-site groundwater contamination was first reported in 1988. In 2002, the Air Force proposed a comprehensive groundwater cleanup program. In 2004, it hopes to finish installation of a system that combines permeable reactive barriers, pump-and-treat systems, and monitored natural attenuation, as well as enhanced bioremediation and soil vapor extraction in the on-base source areas.

Most cleanup decisions at Kelly are subject to the oversight of the Texas Commission on Environmental Quality (TCEQ), which regulates major activities under the Resource Conservation and Recovery Act (RCRA). EPA also participates in the Base Realignment and Closure (BRAC) Cleanup Team (BCT). EPA believes it has sufficient authority at Kelly, but community members are concerned that its jurisdiction is limited because EPA has deferred the facility from listing on the NPL despite conditions serious enough to qualify it.

The Restoration Advisory Board (RAB) or its Technical Review Subcommittee meets monthly. The RAB has been awarded over $100,000 in assistance under the military's Technical Assistance for Public Participation

[16] The toxic hotspots are a cause of serious concern, nonetheless.

(TAPP) program, in which consultants selected by the RAB conduct independent reviews of cleanup documents. The Air Force reports conducting over 200 public meetings, tours, and presentations. It maintains a mailing list of 26,000. In response to public urging, it provides Spanish translation at meetings, offers a Spanish phone service, and publishes announcements and fact sheets in Spanish as well as English.

B. IMPACTED COMMUNITIES

Environmental issues at Kelly Air Force Base are inherently environmental justice issues because the base is located in an environmental justice community and a large percentage of its workforce historically came from that community. The community is a predominantly low-income community, over 95 percent Mexican/Mexican-American and includes a significant number of monolingual Spanish speakers.

Still, there is a major disconnect between active members of the community and the agencies responsible for cleanup. There is widespread dissatisfaction with, and distrust of, the Air Force. One group, the Southwest Workers Union (SWU), has formed the Committee for Environmental Justice Action to promote environmental justice at Kelly. SWU has participated in official community relations activities, conducted door-to-door organizing activities, staged protest pickets and marches, and even filed a Civil Rights complaint in pursuit of its goals. Some elected officials, including one or two local members of the U.S. Congress, have backed SWU initiatives.

The FFWG has categorized community concerns into three areas:

- The community wants the Air Force held accountable for its past practices.
- The cleanup program is doing too little, too late.
- Too much of the community involvement program is one-way communication.

C. IDENTIFICATION AND ANALYSIS OF KEY ISSUES

1. Past Practices

There is no question that when Kelly Air Force Base was active it released hazardous substances into the environment due to industrial practices that would not be allowed today. Because Kelly was a large industrial facility, the scope and quantity of those releases was enormous, and the Air Force's budgetary commitment recognizes this fact. But official agencies do not agree that such releases are responsible for any widespread impacts on public health.

The community around Kelly appears to suffer from high concentrations of a variety of diseases and health conditions, and community members blame the contamination at Kelly Air Force Base. Problems range from diabetes to cancer, from blindness to asthma. The Amyotrophic Lateral Sclerosis (ALS) Association identified a possible cluster of that disease, commonly known as Lou Gehrig's disease, among base workers. SWU-CEJA, in partnership with the University of Texas Medical Branch-Galveston completed a Comprehensive Health Symptoms Survey in 1996. That survey found that over 90 percent of the adults and 75 percent of children suffered from multiple illnesses.

Kelly's neighbors tell of exposures to solvents and radiation when they worked on the Base. They say that in the past, the contaminated shallow aquifer provided drinking water to 20,000 homes. They describe recurring fish kills in Leon Creek. They report having purchased truckloads of dirt that originated at the Base and placing it in their yards. One community member explained how her family home was built with wood from storage pallets at Kelly. Some community members are concerned about having used water from the contaminated shallow aquifer because volatile organic compounds may migrate from the groundwater into homes, businesses, and the outdoor air.

Health officials, however, remain unconvinced that contamination is the principal cause of poor health in the community. They note that many of the reported problems are found in similar communities not located near major contamination sites, and some of these problems, such as heart disease and diabetes, are more likely triggered by heredity, diet, and other lifestyle choices. A peer-reviewed study, sponsored by the Air Force, found no abnormal concentration of ALS mortality. Furthermore, even where there is a logical link between contamination and acknowledged medical conditions, it is extremely difficult to *prove* a connection.

Community groups are not satisfied with such reassurances, so they have sought intervention by their members of Congress. Congress funded a five-million-dollar health survey of Kelly neighbors and workers. That study is being carried out by the Environmental Health and Wellness Center in San Antonio. Center staff report that they have overcome some initial community suspicion and have already collected data from 1,650 members of the community.

Many people who live near Kelly believe that contamination has depressed their property values. The FFWG team heard conflicting evidence on this point, which should be expected given the absence of a standard methodology for measuring how contamination influences property values. It is clear, however, that as San Antonio developed, many of the residents living near Kelly Air Force Base who could afford to move to other communities did so. Industrial pollution was likely one factor in that decision.

Whether or not they can prove specific illnesses or percentage drops in property value, members of the Kelly community feel that the Air Force injured them in multiple ways, and they seek justice, sound health, and a better future, as well as compensation.

2. Too Little, Too Late

Community members express frustration that the Air Force took so long to propose a comprehensive, long-term remedy for off-base groundwater contamination. While the process for addressing groundwater contamination in any situation is slow, many community members believe that the Air Force responded to the community's reuse needs—as represented by the Redevelopment Authority—before it focused on off-base remediation. The Air Force and Redevelopment Authority point out that much of the on-base activity was designed to prevent the release of additional contaminants, but both said that they really have not yet told that story to the public. (That is, Boeing, Lockheed-Martin, and other private firms are doing the same type of work as the Air Logistics Center, but they employ technologies that reduce the use of toxic chemicals and contain toxic releases.) They also proudly describe their success in maintaining employment of a large share of former Air Force employees.

These findings do not comfort retired Air Force employees and others who live near the base. They were not consulted in the decision to make reuse a priority. In fact, the people who live across the street from East Kelly—a portion of the base separated from the main facility—complain that the Air Force property, which is not yet in reuse, is a visual blight, with tall weeds and metal scrap covering much of the landscape.

Community activists also question whether the Air Force's proposed remedial action, which includes both passive systems (permeable reactive barriers) and monitored natural attenuation, would cleanup the groundwater fast enough. Indeed, community members consider natural attenuation a "do-nothing" remedy. Generally, most community members express a general mistrust of the Air Force's technical approach.

3. Community Involvement

Even its strongest critics believe that the team brought on board by the Air Force Real Property Agency after closure improved communications with the community, particularly in its provision of Spanish-language

materials. However, even community members critical of the SWU say that the Air Force still is not doing as much as it should be when it comes to *listening* to the community.

Historically, public meetings—such as those of the Kelly Restoration Advisory Board—have made it difficult for members of the community to express their concerns. Furthermore, reports are often couched in jargon and are replete with acronyms that require translation into English, not just Spanish. According to community members, the Air Force and other agencies have a tendency to talk at residents, not engage in dialogue. Time is reserved on RAB agendas for reports from the community's TAPP consultants, but those consultants are still outside experts.

Second, the Air Force—like many other government agencies—does not recognize the democratic appeal of the public forum. It proudly reports about a series of public forums at which it solicited input on its proposed groundwater cleanup plans. However, SWU representatives say that at these forums, the Air Force used microphones to make its presentations, but took them away during the public comment period and told people to make their comments individually to court reporters. SWU representatives further assert that there was no space provided for community participation in the decision-making process, no community participation in the development of plans, nor any accountability to the community. While this technique, popular among government agencies, helps to build a written record, it limits a community's ability to develop a collective viewpoint. From then on out, SWU insisted that community members have the opportunity to use the same microphones as the Air Force does during these forums.

Moreover, one long-time member of the RAB points out that community members were excluded from BCT meetings at which the regulators, Air Force, their contractors, and apparently the Redevelopment Authority negotiate characterization and remedial strategies. This community member feels that the RAB is for show and that the real work goes on behind closed doors. Nationally, military installations vary in the way they handle this issue. Some BCTs allow RABs to send observers, and some do not. Some RABs feel BCT participation is important. Others are content to hear reports at RAB meetings.

Ironically, the group that is most critical of the Air Force's community involvement performance is the one that feels most empowered. SWU organizers named a series of successes, from moving up the public comment period during RAB meetings to the Congressional earmark for the health study. SWU believes it has achieved some of its objectives by working to change and going beyond the official public involvement process. It has organized its constituency, held its own community meetings, staged high-profile demonstrations, worked with members of Congress, and stood up for the rights of its members. It is difficult to know precisely what the Air Force and other agencies would have done in the absence of SWU organizing, but it is clear that SWU leaders are less frustrated than community members who limit their participation to official meetings and communications.

Project ReGeneration, formed by SWU-CEJA, seeks to identify ways by which key parties, particularly federal agencies and grassroots community organizations can engage in constructive dialogue and develop multi-stakeholder partnerships to ensure that community concerns in areas of health, cleanup, and economic development can be meaningfully addressed. Thus far, it has conducted at least two preliminary roundtables and a series of planning meetings. According to the EPA environmental justice specialist that manages the project, the new process has given the community a sense that they are being heard. However, it is too soon to know whether Project Regeneration will help overcome the substantive disagreements between environmental justice activists and government agencies.

D. FINDINGS: SUCCESSES AND CHALLENGES

There appears to be a systemic disconnect between the official cleanup program at Kelly Air Force Base and the expressed concerns of the surrounding community. The Air Force is expending a significant amount of

money on a series of characterization, remediation, and long-term management activities, not unlike its programs elsewhere. However, many of the people who live nearby do not trust the Air Force's motives, strategies, or technologies.

The Air Force and its regulators are looking forward to the future by preparing the base for reuse and transfer and developing plans for installing cleanup remedies as soon as they can. But they have failed to win the trust of a major portion of the local, predominantly Hispanic, population. Our brief research suggests that this mistrust grows from a failure to acknowledge the past because the installation restoration programs at military facilities do not include this important step.

In a holistic sense, many base neighbors and former workers feel that the Air Force has injured them and their environment. They have never received an apology. But the cleanup paradigm includes no mechanism to offer "reparations." Still, some form of acknowledgment is a necessary step toward building community trust. While many in the community—and many more who live elsewhere—benefit from redevelopment, others do not. In fact, according to some residents, the Redevelopment Authority has proposed some infrastructure developments that would displace members of the community.

To earn this acknowledgment, community members have sought independent health studies. They expect someone in the government to investigate each and every claim of contamination. Studies now underway may uncover a suggested link between some of their illnesses and Kelly's hazardous releases, but it is unlikely that such studies will either prove or disprove a clear connection. It would be a mistake to build a solution to Kelly's environmental justice conflicts on the anticipation of a definitive scientific result.

Community activists made it clear that they want a greater say in Kelly's cleanup decisions. They want a faster result, they want a complete cleanup, and they want active remedies. Technical alternatives are needed. The TAPP consultants hired by the RAB provide independent analysis of official documents, but the activist groups that provide a focal point for local environmental justice concerns have no "hired gun" to be their technical consultant. Such a consultant—usually provided by EPA's Technical Assistance Grant (TAG) program at National Priorities List sites—could supplement the work of the RAB and its TAPP consultants by helping activists identify key technical decisions and suggest alternative approaches early enough to win consideration. Experience at other major facilities suggests that technical decisions will continue to be made even after the last cleanup Record of Decision (ROD) is signed.

In response to demands from the community, as well as internal innovation, the Air Force's community involvement program continues to improve. Much of the program appears structured to win support for Air Force initiatives, while many community concerns are not fully heard because they lay outside the methodical progress of the cleanup program.

Finally, Project Regeneration now provides all parties with an opportunity to redefine their relationships. Because its emphasis thus far has been on process, not the actual environmental issues that divide stakeholders, its long-term impact remains unknown.

E. RECOMMENDATIONS AND LESSONS LEARNED

To overcome the disconnect between community concerns and an otherwise competent cleanup program, we recommend the following:

- The Air Force should explore ways to "compensate" the community as a whole for the perceived injury or insult resulting from decades of environmental mismanagement, whether or not studies prove that public health or property values have been substantially undermined by Kelly's pollution. Since

current statutes might not support such a response, all parties may need to work with the local Congressional delegation to develop enabling legislation.

- Either through listing Kelly on the National Priorities List or some other mechanisms, TAG-style technical assistance should be made available to community activists to develop their own technical strategy for Kelly cleanup, remedy review, and long-term management. This would supplement the TAPP funding that is supplied to the Restoration Advisory Board.

- Government agencies at Kelly—not just the Air Force—should build on existing efforts to provide opportunities for community members to be heard. Project Regeneration, an interagency supported initiative designed to "level the playing field," is a good start.

- Appropriate government agencies should conduct, in a timely manner, a thorough cleanup of contamination in the community that is caused by Kelly Air Force Base and poses a significant threat to human health and/or the environment.

- Greater opportunities and allocation of resources are needed to educate community members about technical issues, regulatory standards and compliance details involved in cleanup process. Information needs to be in simple, layman's terms, not in complicated technical language, to greatly assist community residents in making meaningful comments and increase their level of participation. It is important to clarify the responsibility and accountability between the Air Force and governmental agencies with the community.

- Federal agencies should recognize that even though the RAB is the official mechanism through which stakeholders provide input and advice to DOD, there needs to be more meaningful ways of participation, such as community based initiatives with institutional and community groups, as recommended in the 1996 Final Report of the Federal Facilities Environmental Restoration Dialogue Committee[17].

[17] *Final Report of the Federal Facilities Environmental Restoration Dialogue Committee: Consensus Principles and Recommendations for Improving Federal Facilities Cleanup*, April 1996

MEMPHIS DEFENSE DEPOT SITE VISIT REPORT
NATIONAL ENVIRONMENTAL JUSTICE ADVISORY COUNCIL'S
FEDERAL FACILITY WORKING GROUP
SEPTEMBER 2003

A. SITE DESCRIPTION

The Department of Defense's (DoD) Defense Depot Memphis (Depot) is comprised of 642 acres in a mixed residential, commercial, and industrial area in south-central Memphis, Tennessee. The site consists of two adjacent sections: Dunn Field, a 60-acre open storage and burial area, and the main installation. The Depot has been in operation since 1942, and since that time has been used to store and distribute clothing, food, medical supplies, electronic equipment, petroleum products, industrial chemicals, and various types of munitions to all branches of the U.S. military. Many buildings were built during World War II and the Korean War. Contaminants found in the site's groundwater and soil includes: pentachlorophenol (PCP), polychlorinated biphenyls (PCBs), chlorinated solvents, petroleum, oil, lubricants, heavy metals, and chemical warfare agents.

The Depot used hazardous substances in numerous operations, which resulted in contamination from leaks, spills, and disposal of out-of-date materials and normal application of pesticides. In 1946, the Army disposed of leaking mustard bombs at Dunn Field. Among the wastes disposed of at the site were oil, grease, paint thinners, methyl bromide, pesticides, and cleaning fluids. The shallow groundwater aquifer (nearest the soil) beneath and down grade of Dunn Field is contaminated with moderate to high concentrations of chlorinated solvents and relatively low concentrations of heavy metals. An estimated 154,300 people obtain their drinking water from public water supply wells located within four miles of the site.

In February 1992, the Defense Depot Memphis was proposed for listing on the U.S. Environmental Protection Agency's (EPA) National Priorities List (NPL) and was listed in October 1992. The facility is currently on the NPL. In September 1995, the Base Realignment and Closure (BRAC) Commission recommended the Defense Depot Memphis for closure, and the facility closed in September 1997. Community protests regarding the loss of jobs and concern about the possibility of leaving behind contamination in the community increased interest in the facility.

Three options were examined for cleanup actions in the main installation. The method suggested by some community members during public comment periods was not the final one used, thus leading them to feel that they did not have any influence in the cleanup process. A Record of Decision (ROD) for an interim cleanup to halt the spread of groundwater contamination at Dunn Field was signed by DoD and EPA in March 1996. Since then, a system has been operated to cleanup the groundwater. Additional extraction wells have been installed in order to achieve full hydraulic capture at the facility boundary. Three removal actions for small volumes of metals and pesticide-contaminated soil at the main installation were completed between 1998 and 2001. A removal action to address chemical warfare materials was completed in May 2001. The ROD for cleanup of the main installation, covering three geographically designated operable units, was completed on September 6, 2001. This cleanup includes bioremediation of groundwater, with interim institutional controls to prevent groundwater use, and long-term institutional controls to prevent residential use of the property. The main installation removal action is scheduled for completion in 2005. The Remedial Investigation and Feasibility Study, Proposed Plan, and public comment period for the Dunn Field Record of Decision are complete. The Record of Decision is under review as of January 2004.

The two agencies that have oversight and regulatory authority of the Depot's hazardous waste contamination cleanup process, public participation, and community outreach efforts include the EPA and the Tennessee Department of Environment and Conservation (TDEC). The EPA has worked and is continuing to work hand-in-hand with all of the entities involved with the site's cleanup and redevelopment to ensure environmental standards are met. TDEC is the state agency that shares oversight of the Depot's hazardous waste sites with

EPA. It reviews project management plans and BRAC Cleanup Teams work plans related to the remedial investigation, record of decision (ROD), risk assessments, as well as offers technical assistance. The State of Tennessee and EPA are reviewing the Dunn Field Remedial Investigation (RI) report and baseline risk assessment report. Dunn Field is where the majority of waste disposal occurred. The RI report identified significant source areas for VOC contamination seen in groundwater both on and offsite.

The Base Cleanup Team (BCT) was formally created in December 1995 to oversee the environmental cleanup program at the Depot and to ensure it meets all legislative requirements. Members include Remedial Project Managers from the Defense Logistics Agency (DLA), TDEC, and EPA Region 4. The BCT also works closely with the local reuse authority to share information about the environmental program and land reuse plans.

The Defense Depot Redevelopment Corporation, the local reuse authority, is a joint Memphis/Shelby County government entity, which has the role of ensuring that the facility property is clean and brought up to modern standards to be offered to tenants. It is hoped that the businesses that become tenants will reinvest in the surrounding community by hiring residents as much as possible, although this is not a requirement. It actively leases and transfers areas of the Depot site to private industry once the area has been determined to be environmentally suitable for reuse by the BCT. The Depot is open for business as the Memphis Depot Business Park and is now designated as a "renewal community" zone and a "foreign trade" zone. These designations attract tenants to operate their businesses on the facility property. Several tenants already occupy buildings and provide jobs on the facility. The new tenants include several private companies, as well as the southeast precinct of the Memphis Police Department.

The Agency for Toxic Substances and Disease Registry (ATSDR) is the federal agency within the Department of Health and Human Services that provides health information to prevent harmful exposures and disease related to toxic substances. ASTSDR held formal public health assessments.[18] ATSDR also formed the Greater Memphis Environmental Justice Working Group which held only two or three public meetings to hear the community's health concerns. Dr. Ruben Warren was a key player in this effort and the first few meetings were productive. The community does not understand why these meetings were not continued.

1. Public Participation and Outreach Activities

Major community involvement activities stem from the Restoration Advisory Board (RAB) and the Community Relations Specialist. The RAB is currently made up of multiple stakeholders from the Memphis Depot community, including neighbors; public officials; local, state and federal regulators; and a neighborhood group that reviews cleanup plans and monitors the cleanup process. The RAB is meant to serve as a mechanism for communication to the broader community about the cleanup process. When the RAB was first established, it did not have one member from the immediate or fence-line neighborhood. After protests from community members, a representative from the adjacent neighborhood and a member of the Defense Depot Memphis, TN, Concerned Citizens Committee (DDMTCCC) was brought onto the RAB. The poor relations that developed seemed to grow and flourish because of a lack of sensitivity to the frustrations and concerns of many of the community residents near the Defense Depot facility.

The RAB is "led" by a team of two persons who serve as co-chairs. One co-chair is a community representative, while the other is an agency/facility representative. When the RAB was created, its first co-chair was a white male who was an activist with a community-based organization, but not a member of the fence-line community. Because of this, he was not viewed as a genuine member of the community, and many people from the fence-line community complained about his position as community co-chair. The current co-

[18] ATSDR Public Health Assessment, Memphis Defense Depot (Defense Logistics Agency), Memphis, Shelby County, Tennessee (http://www.atsdr.cdc.gov/HAC/PHA/memphisdep/ddm_toc.html)

chair is an African-American male who lives near the facility and is a former worker at the Depot. In discussions with both of these community co-chairs, the site team found that they both felt they had limited input and authority as co-chairs of the RAB, particularly in setting the agenda and deciding how the meetings would be run. They indicated that the agendas are determined by DLA. Although the RAB continues to function, there is a feeling among some that the process does not allow for people to influence the real decision-making process. The RAB applied for and received a Technical Assistance for Public Participation (TAPP) grant from DoD, and would like to see more of these kinds of opportunities made available to the community. RAB representatives have been involved in educational opportunities, including site visits to other cleanup projects in Ogden and Spring Valley. It appears that most everyone is in agreement that although positive things have occurred, it is difficult to assess the effectiveness of the RAB.

A Community Relations Specialist (CRS) was hired fulltime at the Depot in 1999 to be a liaison between the community and facility representatives to improve communication. The CRS was hired through Frontline, a Canadian-based public relation's firm, after the Defense Depot conducted focus group sessions in the community. Even though there have been frustrations between the community, the facility, the entities that oversee it and others, communications have improved since the CRS was hired. The CRS utilizes a wide range of methods to share information with the nearby neighbors and the community at-large. She arranges meetings, presentations, and special events to encourage dialogue between the Depot's environmental experts and the general community. These efforts include meetings with neighborhood associations, churches, schools, and community and interest groups. She can be reached by phone, and a voice-mail system is set up for community members to leave messages requesting information on the environmental cleanup program. The result has been environmental justice outreach and activities that were not required but were done in response to the continued push by community members and through the DDMTCCC.

B. IMPACTED COMMUNITIES

The potentially impacted neighborhoods surrounding the Memphis Defense Depot are mainly African American. According to the 2000 U.S. Census, the community is 78 percent black; 21 percent white; and 1 percent other, with mixed income levels ranging from low to moderately high. Many in the adjacent neighborhoods believe that dumping and runoff from the site has negatively impacted their health. The most vocal neighborhoods are to the west, north, and south of the facility, while there is also concern from the community on the east, which is separated by Airways Boulevard, a major thoroughfare. Homeowners make up the vast majority of residents, and believe that knowledge about the contamination at the facility will negatively affect their property values. Many local citizens were employed at the Defense Depot during the height of its operations; the issues related to health impacts now cast a dark shadow on the years it provided jobs. Over the years there was very little contact between facility management agencies and very little explanation about activities at the Defense Depot. This lack of information and contact has led to years of suspicion and mistrust of the government agencies in charge of the facility.

The Defense Depot Memphis, TN, Concerned Citizens Committee (DDMTCCC) is a grass-roots community activist group representing the community near the Depot. DDMTCCC pursues answers to questions and strives to ensure that facility is striving for environmental justice for its neighbors. It is an African American community-based organization that was formed specifically to focus on issues of contamination at the Defense Depot and health problems among its residents that they believe are attributed to the facility. In 1995, shortly after the RAB was formed, the DDMTCCC was created. At this time, the relationship between the community and the Defense Depot could best be described as "poor." Facility and agency representatives say that it was the lack of experience in dealing with grassroots organizations that represent African American communities, combined with the bureaucratic nature of DoD, DLA, EPA, and TDEC that caused tempers to flare on both sides. The community members say it was the unwillingness of DoD, EPA, and DLA to share information and be honest that caused the breakdown of communication between both sides. Agency representatives and community members both agree that outreach efforts and access to information was at its poorest level prior to

the establishment of the RAB and during the early years of the RAB. In order to highlight the community's concern, DDMTCCC staged public protests, marches, and events. DDMTCCC was also instrumental in going to Fort Belvoir and asking for a court reporter at all of their RAB meetings. At meetings prior to the court reporter, the community's concerns and complaints were not fully captured in the meeting minutes. DDMTCCC also pushed for a community relation's specialist at DLA. Although this organization had issues with this individual's lack of influence over the cleanup process, hiring her was still a step in the right direction.

C. IDENTIFICATION AND ANALYSIS OF KEY ISSUES

The following key issues were determined from the site visit to Defense Depot Memphis:

1. Economic Loss

Since the Depot facility has been a part of the community for over 50 years and many community members or family members had jobs there, the Depot was an important source of income in the area. The economic losses of family income are to be considered in assessing the environmental justice issues related to the Depot. Longtime residents remember being concerned about activities at the facility as early as the 1970s, mainly because some people wondered about the illnesses and deaths of workers and former workers. Not much was known about the facility except the bits and pieces of information that could be learned from the workers, but that information was sketchy and usually related to the building or operation that a particular employee was most familiar with.

2. Contaminated Groundwater

When newspaper articles mentioned contaminated groundwater plumes in the early 1990s, quite a bit of concern developed within the surrounding neighborhoods. Additionally, the news of mustard gas kits being buried near their homes was shocking. Many neighborhood residents cannot understand why a facility that handled dangerous substances would be allowed to operate so close to homes and families. In 1992, the Depot held its first public meeting with neighborhood residents at the request of a local businessman who was very concerned about rising breast cancer rates in the area. In addition, there was, and still remains, major concern that the drinking water supply has been affected by groundwater contamination, which is located in a low-lying aquifer 80-feet underground and is migrating off-site. Remedial action to pump and treat the contaminated plumes began in 1998. The treated water is routed through the city sewer system. While this pump-and-treat procedure is designed to create a hydraulic barrier that will slow down and/or stop the plume's migrating effect, neighborhood residents do not fully understand this technology, and therefore do not fully trust it.

3. Exposure to Runoff

Longtime residents recall flooding and lots of runoff from the Depot facility over the years. This runoff would flow into the neighborhood directly behind or to the west of the facility. Runoff has been a major concern because there were 21 ditches or culverts that took water from the site and into the neighborhood. Community members recall that as children, they played in the water-filled ditches on hot days, not knowing that there might have been something harmful in the water that flowed from the Depot property. There is no scientific data to support the supposition that runoff from the site can or could cause harm to nearby residents. This is unfortunate because many neighbors are concerned about past activities at the facility, including runoff. In July 2003, a retention pond was dug near the back of the facility, on its west side, to accommodate runoff from the site's rooftops and parking lots. The Depot anticipates this pond will alleviate flooding that has plagued the community for years.

4. Former Workers Health Concerns

In July 1999, a forum was held by the Memphis Health Center and DDMTCCC in a neighborhood church for the express purpose of having former workers testify about the health problems they attributed to working at the facility. ATSDR attended this meeting. In their testimonies, former workers shared information for the first time about activities that occurred on the site. They stated that while they worked at the facility, they did not recall the management ever having conversations with them about possible contamination in their work area or anywhere on the site. When testing started at the facility, employees began to see people in safety gear or "moon suits" and they began to ask questions. They were told that it was none of their business and to get back to work. All the while, there were discussions among the workers about former workers who had died, had cancer, or had miscarriages. It was reported that there was great retaliation by DLA after the forum was held. The site team was told that the workers who testified at the forum were later reprimanded at their jobs in various ways. Some believe that they were forced to quit their jobs because they spoke out about the site. They were later afraid to share additional information about the Depot.

5. Health Concerns

Lack of trust is a major problem in most environmental justice situations, as it is in this one. Part of the confusion and continuing questions stem from statements and reports that do not address exposure pathways from long-term past activities and contamination. Regarding past exposure and harm, ATSDR conducted sampling on-site as well as off-site near a few homes, ditches, and runoff areas. ATSDR's final report concluded that there was "no significant risk." It is widely felt that the effort to bring ATSDR in was not at all adequate to determine health damage to the community.

Getting local access to reliable healthcare is a major concern of community residents. Many feel their health has been affected by past activities of the Depot, but their access to healthcare is inadequate. The adjacent neighborhoods do not have a community clinic that might make it easier for sick people to be treated. For many years, the DDMTCCC has been advocating a medical facility to be located in their neighborhood.

6. Living Near a Superfund Site

Living near a Superfund site often has negative economic impacts. Homeowners feel that "Superfund" status affects their ability to sell their home, and in some cases, to even borrow money from banks for remodeling. The Depot had aboveground bunkers that were the subject of lots of whisperings and theories. For over 40 years, no one really knew what was in the bunkers. The Depot never gave any definitive explanation and the community's suspicions continued to grow.

7. Constant Staff Turnover

Government agency representatives and community members agree that outreach and information sharing was at its poorest level prior to the establishment of the RAB and during the early days of the RAB. Another thing that added to the poor relations was the constant staff changes as the facility's status evolved from a working facility to a BRAC facility with significant contamination left behind. Once community members learned who they could talk to about a particular issue that staff person moved on and made way for someone new, which resulted in a lack of continuity and did little to build healthy working relationships. The poor relations that manifested early on are responsible for the high degree of mistrust that continues to this day.

8. Difficulty in Understanding Technical Cleanup Issues

Another factor contributing to the lack of mistrust is the lack of understanding of technical issues, regulatory standards, and compliance details presented in reports on the cleanup process. While some RAB members

have a great understanding of technical issues, many community members do not. Even though community residents were invited to participate in daylong workshops and meetings to learn more about the cleanup process and its current status, these types of forums were poorly attended. There is some debate as to why community members did not participate in these events. Some believe that the technical issues, regulatory standards, and compliance details may intimidate them. Others believe that the community is disgusted with past unresponsiveness and do not trust the information they are given. However, community member's attendance at RAB meetings increased after the RAB meetings were moved to a nearby senior citizen's center instead of on the Depot property, which indicated they were possibly more comfortable at the alternate location. DDMTCCC had a *pro bono* technical advisor who translated complex technical documents into simple language for the community. This community organization also wrote their own booklet that described these cleanup issues. In 1995, they also had a chemist translate a report from an ATSDR health assessment study so the community could understand it.

9. Lack of Understanding of Environmental Justice

A significant lack of understanding about environmental justice and Executive Order 12898 occurs in the federal agencies. When asked if the Depot has any environmental justice issues, how environmental justice was incorporated into the cleanup process, or how they developed their ideas about environmental justice, the answers were basically the same. Depot officials were clear on what their job requirements were and the need to make the community feel a part of the cleanup process. Beyond that, they did not appear to understand the term or the concept of environmental justice. Since they did not understand environmental justice, the sensitivity to environmental justice issues and manner of responsiveness was poor. However, between 1995 and 1996, training was held for contractors and other agency staff on how to communicate effectively with the community by using simple, laymen's terms instead of acronyms and confusing technical phrases.

10. Decide, Announce, Defend Approach

While it is apparent that sincere efforts have been made to share information with the community and to do public outreach, community members feel they are still not being told the "whole truth and nothing but the truth." Some describe the sharing of information as the "DAD" approach. This means that the agency comes to a public meeting, announces its decision, which was already made without the community, and then defends its decision. When stakeholders were asked to pinpoint a specific instance when a suggestion from the community was addressed, a frequently mentioned issue was the concern about dust from dirt that was removed from Dunn Field and blew off trucks and drifted into the neighborhood. The community expressed its concern and the Depot cleanup contractors started to cover the trucks to keep dust from flying out. However, there were only one or two times that community members observed their suggestions being implemented. It was pointed out that even though an extra effort was made to receive input from RAB members and community members, there appeared to be a lack of significant oral or written comments at public meetings. For example, questions or comments related to the Clean Water Act, Superfund, remediation procedures, and specific technical issues were rarely received from community residents.

11. Lack of Communication and Cultural Sensitivity

Some people noted that the Depot has been reluctant to provide answers about the extent of the contamination. They said that in the past, many of the public meetings were rigidly structured, and only allowed people to speak for a few minutes and to ask questions at certain places on the agenda. Oftentimes, the proper personnel were not present to answer specific questions. At times, it appeared that the questions that were asked received guarded answers that were not very specific. While these types of public meetings offered the Depot a more controlled environment for a business-type of meeting, they were not "community-friendly." Currently, the Community Relations Specialist (CRS) works to ensure that community members are comfortable making

comments and asking questions. For example, the CRS distributes index cards to the audience so they can write their questions instead of having them walk to the front of the room to the microphone to speak.

D. FINDINGS: SUCCESSES AND CHALLENGES

Health issues and concerns are the basis for the continued environmental justice advocacy and activism at the Depot. From the facility tour and overview of the site, to the individual conversations with a diverse set of stakeholders, it was quite apparent that there is a huge difference of opinion between the perspectives of the agency officials and representatives, and the residents living near the Depot.

The agencies and contractors focus on "current" levels of contamination or "current" exposure pathways. There is a reluctance or inability to factor in or consider "past" activities, and "past" exposure pathways. This causes great mistrust from the community.
Considering Executive Order 12898 of 1994 requires all federal agencies to develop a policy and strategy for addressing environmental justice, it is surprising that little knowledge or understanding of environmental justice exists among agency representatives that the site team talked with. The understanding that neighborhood residents have of environmental justice is very different from the various agency representatives and contractors.

Significant efforts to do outreach utilizing several media have been very successful and effective. Community outreach efforts using facility newsletters, newspaper ads and articles, public websites, outreach sessions, and learning opportunities to offset suspicion are quite useful in developing a good relationship.

E. RECOMMENDATIONS AND LESSONS LEARNED

The following recommendations were made from the Depot site visit:

- When conducting public information sessions or meetings, it is imperative that staff from all appropriate agencies be present to respond to questions from the community. This has not always occurred. No one agency can address all questions.

- Greater opportunities and allocation of resources are needed for educating community members about technical issues, regulatory standards, and compliance details involved in the cleanup process. Information needs to be in clear, simple, laymen's terms, not in complicated technical language, to greatly assist community residents in making meaningful comments and to increase their level of participation. The RAB received a Technical Assistance for Public Participation (TAPP) grant once, but more resources are needed to reassure the community and help them understand the on-going cleanup process.

- The lack of information about environmental justice issues among agency representatives and contractors calls for a greater effort to train representatives who will be making contact or working closely with the community. Environmental justice and diversity training is greatly needed to ensure a greater degree of cultural sensitivity and better communication and interaction.

- It is important to establish a clear line of responsibility and accountability between the Depot and the other official agencies to strengthen the effectiveness of communication with the community. Having multiple agencies in charge gives the community the feeling they are being "given the runaround" as they seek information.

- EPA should recommend to ATSDR that it seek new and improved methods for assessing exposure in communities that have the probability of past exposure to toxic substances.

- A Working Group should be formed to examine the health concerns of former workers and community members and to establish a health center directly in the community.

SAVANNAH RIVER SITE VISIT REPORT
NATIONAL ENVIRONMENTAL JUSTICE ADVISORY COUNCIL'S
FEDERAL FACILITY WORKING GROUP
SEPTEMBER 2003

A. SITE INFORMATION

The Savannah River Site (SRS), formerly known as the Savannah River Plant, is located in Aiken, South Carolina on 310 square miles of land. The site's reactors and tank farms nestled in a beautiful forest of mostly pine trees. SRS covers 198,344 acres in Aiken, Allendale, and Barnwell counties of South Carolina. The site is approximately 12 miles south of Aiken, South Carolina, and 15 miles southeast of Augusta, Georgia. Prior to the building of the site, the land belonged to local farmers. The area of influence extends to eight counties: five in South Carolina (Aiken, Allendale, Bamberg, Barnwell and Beaufort/Jasper) and three in Georgia (Columbia, Richmond and Chatham). The majority of the workforce resides in the two counties nearest SRS, which are Aiken, SC; and Richmond, GA.

The site was originally established in 1950 to produce tritium and plutonium 239 for use in the fabrication of nuclear weapons. Five reactors were built on the site, which produced nuclear materials by irradiating target materials with neutrons. The irradiated materials were moved to two chemical separation facilities known as "canyons", where they were chemically processed. The site's mission later expanded to include the production of other special radioactive isotopes to support research in nuclear medicine, space exploration, and commercial applications. Currently, SRS is engaged in environmental restoration and waste management and continues to operate in support of current and future national security requirements, nuclear materials, and non-proliferation activities and mission-support research and technology development. A key part of the site's mission is to store, treat, and dispose of excess nuclear materials; and treat and dispose of a legacy of waste from the Cold War and cleanup environmental contamination.

The contamination at SRS includes approximately 515 identified waste units to be addressed through the site's environmental restoration program. The site's waste management facilities manage the large volumes of radiological and non-radiological waste created by previous operations.

DOE owns SRS with the primary activities at the site focusing on separations, spent nuclear fuel, tritium management, environmental restoration, environmental monitoring (releases and pathways), and research and development. Savannah River Site is operated by DOE's contractor, Westinghouse Savannah River Company.

The site began cleanup operations in 1981. It was placed on the National Priorities List (NPL) in 1989 and the Environmental Restoration Program was developed in 1991. Because of the variety of nuclear materials and the amount of legacy waste, cleanup is expected to last for more than 35 years. Contamination of groundwater and the Savannah River has been cited as a key concern for local residents. More than 500 inactive waste and contaminated groundwater sites have been identified, including basins, pits, piles, burial grounds, landfills, and tanks.

Major tasks are cleanup and disposition of contaminated facilities, which include one of the two chemical separation plants and 49 high-level waste storage tanks. Many types of waste require continuous management. These include approximately 37 million gallons of high-level liquid radioactive waste stored in tank farms, as well as other liquid and solid wastes from previous and current cleanup operations (transuranic, low-level radioactive, mixed, and hazardous wastes). In 1996, the Defense Waste Processing Facility began using a vitrification process to bond high-level radioactive waste into boroscilicate glass, a more stable storage and disposition form.

SRS operations generate a variety of radioactive, non-radioactive, and mixed radioactive and non-radioactive hazardous wastes. Past and present disposal practices include seepage basins for liquids, pits and piles for solids, and landfills for low-level radioactive wastes. According to a March 1987 Department of Energy (DOE) report, shallow groundwater on various parts of the site has been contaminated with volatile organic compounds, heavy metals (lead, chromium, mercury, and cadmium), radionuclides (tritium, uranium, fission products, and plutonium), nitrates, and other miscellaneous chemicals.

Contamination has been found in a burning/rubble pit where degreasers and solvents were deposited between 195l and 1973. In 1985, trichloroethylene (TCE) was detected in monitoring wells. Soil in a chemical basin, which reportedly received drums of waste solvents, also contains TCE. The 3,200 residents of Jackson, SC, receive drinking water from wells within three miles of hazardous substances on SRS.

A small quantity of depleted uranium was released in January 1984 into Upper Three Runs Creek. The creek and all other surface water from SRS flow into the Savannah River, which is a major navigable river and forms the southern border between South Carolina and Georgia. Along the banks of the river is a 10,000 acre wetland known as the Savannah River Swamp. A March 1987 DOE report indicates the swamp is contaminated with chromium, mercury, radium, thorium, and uranium, which overflowed from an old seepage basin.

Two major federal statutes provide guidance for the site's environmental restoration and waste management activities: the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA or Superfund) and the Resource Conservation and Recovery Act (RCRA). RCRA addresses the management of hazardous waste and requires that permits be obtained for facilities that treat, store, or dispose of hazardous or mixed waste. It also requires that DOE facilities perform appropriate corrective action to address contaminants in the environment. CERCLA addresses the uncontrolled release of hazardous substances and the cleanup of inactive waste sites. This act establishes a National Priority List (NPL) of sites targeted for assessment and, if necessary, corrective/remedial action. SRS was placed on this list December 21, 1989. In August 1993, SRS entered into the Federal Facility Agreement (FFA) with EPA Region 4 and South Carolina Department of Health and Environmental Control (SCDHEC). This agreement governs the corrective/remedial action process from site investigation through site remediation. It also describes procedures for setting annual work priorities, including schedules and deadlines, for that process (FFA under section 120 of CERCLA and sections 3008(h) and 6001 of RCRA).

Additionally, DOE is complying with Federal Facility Compliance Act requirements for mixed waste management, including high-level waste, most transuranic waste, and low-level waste with hazardous constituents. This act requires that DOE develop and submit site treatment plans to the EPA or state regulators for approval. Compliance with environmental requirements is assessed by DOE-SC, SCDHEC, and EPA. SCDHEC and EPA also provide external inspections of the SRS environmental program for regulatory compliance.

The EPA provides oversight at the site. Some of the key regulations SRS must follow:

- Resource Conservation and Recovery Act (RCRA)
- Federal Facility Compliance Act (FFC Act)
- Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)
- Superfund Amendments and Revitalization Act (SARA)
- Emergency Planning and Community Right to Know Act (CERCLA Title III-EPCRA)
- National Environmental Policy Act (NEPA)
- Safe Drinking Water Act (SDWA)
- Clean Water Act (CWA)
- National Pollutant Discharge Elimination System (NPDES)

- Clean Air Act (CAA)
- National Emission Standards for Hazardous Air Pollutants (NESHAP)
- Toxic Substances Control Act (TSCA)

Land use bordering the site is primarily forest and agriculture. Various small industrial, manufacturing, medical and farming operations are also located in areas surrounding the site. Several major industrial and manufacturing facilities are located in the area, and a variety of crops are produced on local farms. The waterways leading into the Savannah River, including the River, are used for recreational, commercial and some subsistence fishing. The Savannah River is used as a drinking water supply for some residents down river of SRS.

According to site data, the population within a 50-mile radius of the center of SRS is approximately 712,780. The census data for 2000 show that out of the six primary impacted counties, two have a majority African Americans and two are almost 50 percent African American. The large impact area and demographic characteristics of the surrounding communities pose a serious challenge to SRS. The population is dispersed over six counties and two states and includes a higher percentage of African Americans than at most other DOE sites. Many African Americans have historically been underrepresented and not actively involved in site issues.

B. IMPACTED COMMUNITIES

Aiken, SC, has a population of 25,337, which are 66.6 percent white, 30.3 percent black and the remaining percentage other. The African-American communities, as well as many poor whites, claim to be most impacted by activities at the site. Although the site is located in South Carolina, half of SRS's work force has always come from Augusta, Georgia. The general community does not perceive itself as an environmental justice community, however the African-American community views itself as an environmental justice community.

The environmental justice community encompasses communities beyond the boundaries cited by the Savannah River Site facility management, government officials, and their private contractors. The affected communities define themselves to include Keysville, Waynesboro, and Savannah in Georgia as well as Beaufort-Jasper counties downstream from the site in South Carolina. The environmental justice communities base their definition of affected communities on geography, work force, and proximity to water tributaries that come from SRS and flow into the Savannah River, which is a water source for Chatham County in Georgia and Beaufort-Jasper County in South Carolina, both of which are almost 100 miles from the site.

Historically, the African-American community has had very little positive contact and involvement with the SRS site. The African-American community, through a variety of community-based activities and participation in hearings and other sessions with site officials, has consistently stated that they believe the greatest negative impact from the site has been on their health. Additionally, they do not believe site managers, government officials, and private contractors have been forthright with information. They believe those officials have responded to their queries with denials instead of investigations, and refused to take responsibility for what they perceive has happened. Some community members spoke about how their families were displaced and not fairly compensated for their losses when SRS was built.

Citizens for Environmental Justice (CFEJ), a community-based organization located in Savannah, GA, works in concert with community leaders and groups from Augusta, Keysville, Guyton and Savannah, GA, and Aiken, Blackville and Beaufort, SC. CFEJ has conducted activities and increased the involvement of African-American communities in work related to SRS from 1998 to the present. These communities have responded to the EIS process, sponsored conferences, received training, provided feedback, and raised significant issues, yet they feel they have had very little influence in the decision-making process at the site. While they value

the ability to participate, they are discouraged by the lack of concrete results that is proof that their involvement has impacted what and how things are done at SRS. The efforts of CFEJ are sponsored by DOE's Office of Environmental Management and EPA's Office of Solid Waste and Emergency Response.

Through the efforts of CFEJ, the Aiken African-American community has become more involved in the last two years. These efforts are primarily coordinated through the Imani Group and Rev. Brendolyn Jenkins, a former member and co-chair of the CAB. Community workshops, designed both to inform and gather information from the community, are conducted by CFEJ in partnership with the site, Westinghouse (DOE's SRS contractor), and Savannah State University. DOE's Environmental Management program launched this partnership with CFEJ and Savannah State University in 1994 and has developed a growing and successful environmental justice collaborative model at SRS.

Demographic Characteristics of Nearby Counties and Communities

Demographics	USA	State of Georgia	Chatham	Columbia	Richmond	South Carolina	Aiken	Allendale	Bamberg	Barnwell	Jasper
Total Population 2000	281,421,906	8,186,453	232,048	89,288	199,775	4,012,012	142,552	11,211	16,658	23,478	11,426
Percent of Population Change1990-2000	13.1	26.4	7.0	35.2	5.3	15.1	17.8	-4.4	-4.1	15.7	35.2
Percent of Caucasians	75.1	65.1	55.3	82.7	45.6	67.2	71.4	27.4	36.5	55.2	71.0
Percent of African Americans	12.3	28.7	40.5	11.2	49.8	29.5	25.6	71.0	62.5	42.6	27.3
Percent of American Indian/ Alaskan Natives	0.9	0.3	0.2	0.3	0.3	0.3	0.4	0.1	0.2	0.3	0.2
Percent of Asian Americans	3.6	2.1	1.7	3.4	1.5	0.9	0.6	0.1	0.2	0.4	0.2
Percent of Hawaiian/ Pacific Islanders	0.1	0.1	0.1	0.1	0.1	Z	Z	0.1	Z	Z	Z
Percent of Other	5.5	2.4	2.4	0.8	1.0	1.0	0.8	0.8	0.1	0.	0.6
Percent of Mixed	2.4	1.4	1.4	1.6	1.8	1.0	1.2	0.5	0.5	0.7	0.8
Median Household Income (1999)	$41,994	$42,433	$37,752	$55,682	$33,086	$37,082	$37,889	$20,898	$24,007	$28,591	$39,890
Per Capita Income	$21,587	$42,433	$37,752	$23,496	$17,088	$18,795	$18,772	$11,293	$12,584	$15,870	$19,249

Source: U.S. Census Bureau, Census 2000 Summary

Community involvement efforts and activities at the site occur through three primary mechanisms: the SRS Citizens Advisory Board (CAB) and the Health Effects Subcommittee (both of which are Federal Advisory

Committees), and community-based activities sponsored by environmental groups. DOE also holds public meetings and workshops, and publishes a broad range of written materials to keep the public informed. These materials include a newsletter that covers various environmental topics, fact sheets, newspaper advertising for legal notices, public meetings, and workshops. DOE hosts a website that provides information about SRS. Data collected from the communities indicate that they believe the SRS site managers, government officials, and private contractors recognize only the CAB as the official mechanism for getting input on the site. The communities believe that DOE and SRS do not value or even consider input that comes through other mechanisms.

C. IDENTIFICATION AND ANALYSIS OF KEY ISSUES

The environmental justice communities potentially impacted by SRS's mission and activities have identified a significant number of concerns and issues related to the site. They perceive and strongly believe that environmental justice problems do exist at the site but are not acknowledged by the leadership of SRS, DOE, Westinghouse, EPA, and SCDHEC. The sharp contrast between views expressed by African-American stakeholders and site management is profound. There is a clear dichotomy in the perceptions between the African-American residents on one hand and the elected officials, SRS leadership, and CAB on the other. These differences occur on issues of onsite and offsite contamination, safety, health impacts, worker exposures, and environmental justice. The site visit team identified five key issues contributing to environmental injustice at SRS:

- Mistrust of information from the site;
- Ineffectiveness of public participation process;
- Lack of accountability for perceived health impacts;
- Good relations with site based on acceptance of site activities; and
- Complexity of cleanup mission

1. Mistrust of Information from the Site

Historically, DOE, including SRS, have disseminated information to public stakeholders in very technical and scientific language. The documents relating to site activities are often long with hundreds of pages of data unrecognizable to the average citizen given the level of literacy of the residents surrounding the site, many of whom are handicapped by less than a third-grade education. The site and its contractors generate the information presented. This information, which is often contradicted by former and current workers from the African-American community, has created a deep mistrust. The common belief is that the site deliberately presents data in a highly technical and scientific manner that is confusing and difficult for the average person to challenge.

Although data shows that off-site releases have occurred over the history of the site, there is no acknowledgement from SRS or government officials that these releases have caused any problems to the environment or to the health of the people. Environmental justice leaders and residents believe there is a deliberate denial and failure to document the effects of the contamination due to the government's view of SRS as a state-of-the-art facility, essential for national security. Community leaders have not had access to independent studies that discuss past releases and current issues of concern at the site, which would provide a basis for real dialogue with the SRS site managers, government officials, and their private contractors on perceived problems. In fact, the experience of the communities has been a struggle to get government agencies that are responsible for the protection of their health to investigate possible health impacts. Environmental justice communities point to the findings of the Dose Reconstruction Study Phase II as a beginning point to look at past releases and exposure pathways.

SRS uses many mechanisms to encourage public participation in its decision-making processes. The CAB is the official voice that advises DOE and the site. The CAB meetings and CAB committee meetings are open to the public, but it is reported that they have very low participation and low involvement by African-American communities. Even though there are several African Americans serving on the CAB, very little comment or concern has been voiced through this channel for public input. The venues for CAB meetings and the style of interaction are two major reasons cited for low participation from community people. Attendance and asking questions are seen as public participation activities. Although site officials are noted for providing information and answering questions, it is still felt that critical issues of the community are excluded, particularly health concerns. Substantive involvement is precluded for African Americans because the Public Participation Process does not include a capacity building component to assist in the understanding complex issues and technical explanations. While SRS conducts many meetings and workshops that appear to be informative, the environmental justice community stated that DOE/SRS fails to clearly identify points of influence where the community's voice and impact can be heard and seen in the decision-making matrix.

2. Lack of Accountability for Perceived Health Impacts

By far the most critical issue for the environmental justice communities has been identified as health impacts. Many African Americans believe their decline in health is attributable to past and current activities at the site. Many residents speak of family members retiring from SRS and within two years dying from cancer primarily, but other sicknesses as well.

Health studies and screenings conducted at the site have produced inconclusive evidence. The cancer registries developed for both South Carolina and Georgia conclude that the incidence of cancer in the region is not out of sync with national statistics. In fact, the registries state that the only notable cancers in the area are ovarian and prostate cancer in African Americans, which are usually not associated with exposure to radioactive substances.

The environmental justice communities have raised major concerns about the prevalence of cancer, respiratory ailments, and childhood behavioral disorders and the death of former workers in their communities. The families have suggested that their loved ones who worked at the site brought contamination home with them. The public participation activities of SRS do not address health issues or health impacts. There is neither acknowledgement nor accountability on behalf of SRS for perceived or real health impacts. The SRS Health Effects Subcommittee has not provided any helpful information, nor has it responded to any concerns raised by the environmental justice community.

3. Good Relations Based on Site Support

The environmental justice communities believe that the only recognized and acceptable input from community stakeholders is input that accepts and supports the positions and goals of the site. According to the environmental justice community, there is no evidence that SRS has accepted a criticism from them and responded favorably with prompt investigations of their concerns. However, they acknowledge that in response to reoccurring complaints, meeting times and formats have changed. But they also state that environmental justice communities have been unable to influence any major decisions made about mission or cleanup activity. While the communities view their relationship to the site as friendly, cordial, and open, they state that the nature of the relationship has not sufficiently changed the process or created real community-based power to impact decisions. Unfortunately, they view the goal of SRS site managers, government officials, and their private contractors as creating good public relations but not attending to the real concerns of the people. They are suspicious of SRS site community activities, such as providing computers, sponsoring community workshops, and providing small gifts to organizations and/or schools, as attempts to keep the African-American community from becoming involved in activities that will challenge SRS's policies and practices.

African-American residents contend that because of the site's economic worth and contribution to the livelihood of many Georgia and South Carolina people, most people are unwilling to question the adverse impacts of the site in public forums. They have stated fear of being targeted and losing jobs or facing other forms of intimidation for outspoken opposition to the SRS site. The strong visible support of the site tends to diminish the growing environmental activism and/or opposition to new missions coming to SRS. Although the activism is not wide-spread, there are key groups and communities that continue to raise their issues and their opposition and concern.

4. Complexity of Cleanup Mission

Environmental justice communities continue to raise issues and concerns about the cleanup program at SRS. They feel the explanation of the cleanup process and the storage of nuclear materials is both inadequate and too complex to understand in lay people's terms. The nature of the contamination is not understood, the Environmental Impact Statement (EIS) documents are complicated and voluminous, the interrelations between specific units for cleanup are not clear, and the various stages of cleanup and how they intersect with other facilities all pose a challenge. It is an overwhelming task for a population already vulnerable, already preoccupied with survival and development issues, and labeled as hysterical and crisis oriented to understand the regulatory regime, the value of various technology options, and remedy selections.

5. Other Significant Issues and Concerns

It is worth noting the following issues and concerns have been raised but were not verified in this report:

- Manipulation of workers dose badges;
- Transportation of nuclear waste through communities;
- Secrecy oath of former workers, working in hot spots;
- Intimidation of African-American workers to keep quiet about illnesses;
- Unclear role of EPA headquarters and EPA Region 4;
- Water contamination;
- Long-term effects yet to be identified; and
- African-American employees are overlooked for advancement in their employment, while Caucasian employees advance right away to another, higher position.

D. FINDINGS: SUCCESSES AND CHALLENGES

There is a clear divide between what the environmental justice communities think and believe and what the SRS site presents about community involvement and cleanup at SRS. Although SRS has improved the way in which it does business with communities in general, the environmental justice stakeholders still feel disenfranchised and marginalized. Even though there is communication between the stakeholders, and the environmental justice communities are involved in public participation activities, they cannot identify any points of power or influence. While, their biggest concern to date relates to health, they cannot point to responsive action on the part of the various committees and boards to investigate their concerns. Without a capacity building program and access to independent scientists and experts who can help them to frame their concerns and conduct preliminary research, the environmental justice community feels at a distinct disadvantage to provide guidance and to bring substantive alternative data or proposals during stakeholder discussions. They believe they are handicapped to intervene effectively when decisions are made.

Relations are changing but very slowly. There appears to be trust in specific individuals rather than trust in the process and the facility. The overriding feeling is that there is openness in communication but in a public relations framework. The environmental justice communities lack trust because they do not see valid

characterizations of their concerns regarding the contamination and its potential impact on the health of the people. The challenge remains: how to involve the environmental justice communities in a meaningful, engaging process; and how does their involvement lead to communities experiencing a sense that they have influence in the planning and decision making process at SRS. At the same time, the communities and Citizens For Environmental Justice view positively the efforts by SRS site, government officials, and its private contractors, to provide alternative mechanisms to involve them beyond the SRS CAB vehicle.

For some, SRS represents no health threat, is a good neighbor, and is the economic driver and giant in the region. Former African-American workers, their family members, and their communities see things very differently. There is clearly a significant disconnection between the environmental justice community's (Aiken, Blackville, Beaufort, SC, and Augusta, Keysville and Savannah, GA) perception of the site and those who are pro SRS. Site management, elected officials, current employees, contractors, some regulators, and the CAB leadership see no environmental justice problems or concerns while environmental justice organizers are adamant that they do exist but are suppressed because of fear.

The SC DHEC recognizes that there are environmental justice problems, but do not know how to address them because they have received no formal complaints to date. Working to be proactive and responsive they are searching for solutions and are open to guidance and advice from the environmental justice communities associated with SRS. DOE's environmental justice program under the leadership of Melinda Downing has created a successful model of multi-stakeholder partnership with environmental justice communities in both Georgia and South Carolina. This environmental justice project is creating a "win-win" scenario for the site and the community. The foundation for community involvement that has been developed through DOE and EPA support is providing a greater opportunity for community input. The community believes this model will ultimately lead to the environmental justice community's capacity to influence the decision-making process at SRS and other facilities within the DOE complex.

E. RECOMMENDATIONS AND LESSONS LEARNED

In order to improve the involvement of the environmental justice communities in the sites public participation activities and processes the following recommendations are suggested:

- **Recognize the value of input from stakeholders outside of the Savannah River Site Citizens Advisory Board (CAB) process.** Environmental justice communities in both Georgia and South Carolina have worked consistently to participate in the decision-making processes and activities at SRS, particularly during the EIS process. Concerns and questions have been documented and submitted to SRS and DOE over the years with varying degrees of response. The responses to the community have often taken long periods of time with no evidence that consideration was given to either their concerns or questions.

- **Recognize that even though the CAB is the official mechanism through which citizens and stakeholders provide input and advice to DOE and SRS, the Federal Facilities Environmental Restoration Dialogue Committee (FFERDC) called for additional ways of participation.** The CAB represents one way of doing business that often precludes the real and meaningful involvement of members of environmental justice communities. These communities, as a significant part of the impacted communities, believe their voice must be actively sought after, that it must be integrated into the process; and that they must be informed about the outcomes of their input and involvement.

- **Create a community advisory panel to address issues of trust building.** Mistrust or lack of trust in both DOE and SRS is a recurring theme and poses a challenge to outreach efforts and activities. Environmental justice communities do not trust the information they are receiving from the site about the level of contamination on and off site and the past and potential impacts to their health and immediate environment. Current public involvement approaches and methods of disseminating and sharing

information are not having a positive affect on the attitudes of mistrust. A community advisory panel is recommended as a first step in creating both an environment and structure where issues of past and present mistrust can be addressed and resolved. The community advisory panel would be composed of environmental justice community leaders from both Georgia and South Carolina working in collaboration with DOE, SRS and Westinghouse Savannah River Company. SRS has an opportunity to address this critical issue by: 1) providing access to understandable, credible information, 2) ensuring transparency of the process, 3) including input from environmental justice communities in the cleanup decision-making process; and honestly addressing the concerns of environmental justice communities and their lack of trust in presented data and the official advisory process.

- **Develop and distribute culturally sensitive and community friendly documents and findings.** Environmental justice communities have consistently requested data and site documents to be disseminated to them in a format and language that they can understand and analyze for the purpose of providing stakeholder input. The documents distributed are very technical, use scientific language, charts, graphs and tables, and are never accompanied by a community-friendly version so that they can be understood by laypeople. In addition, these documents are not being distributed to community members and the public at large in a timely manner to allow for adequate review and submittal of public comments; more often, laypeople are not prepared to provide valid comments. Environmental justice communities desire significant and meaningful participation, but are limited because they do not understand the information about the nature of the contamination, the technology to remediate and the potential impacts. CFEJ has been identified as an environmental organization that provides translation and interpretation of site data and documents. A collaborative effort between the site, environmental justice communities, and CFEJ could institutionalize new and creative ways of providing information to this group of stakeholders. This could assist in building positive partnerships and ultimately a new relationship.

- **Increase the resources to environmental justice communities to conduct capacity building activities and to conduct workshops related to SRS.** Substantial resources are provided to the CAB to conduct its operations and activities enabling them to provide recommendations of influence. Similar, yet different, levels of funding must be made available to environmental justice communities and organizations to conduct similar work as the CAB, based on the population for outreach. The environmental justice organization can provide more hands-on training from a peer level that leads to the development of the capacity to substantively participate in the National Environmental Policy Act (NEPA) and EIS processes and activities. Capacity building is essential in environmental justice communities, and this training occurs easily using community-based workshops that can be conducted on the weekends in order to include working people. The workshops help to build confidence and provide tools to assist residents in finding and using their voice to impact both policy and practice at the site.

- **Provide resources for communities to undertake independent health studies that help rebuild faith in the government's role as protectors of the community's health.** Health is the primary concern next to cleanup in the environmental justice community. The health studies that have been conducted are few in number and have not answered the questions nor responded to the concerns of environmental justice stakeholders. Communities want to see comparative analysis done between site-conducted studies and independent studies to corroborate findings. Resources in the form of technical assistance grants can be provided to environmental justice communities to engage in a deliberative and collaborative process with the site on health studies.

- **Explain and highlight the role of EPA Headquarters and EPA Regions.** The environmental justice communities do not understand the role of EPA at federal facilities in general, and SRS in particular. There is a critical need for EPA representatives to establish a relationship with the environmental justice communities impacted by the activities at SRS. Community workshops conducted by CFEJ and other organizations include staff from SRS/DOE/WSRC. EPA is visibly absent. This absence/lack of contact

has created an incomplete picture for stakeholders who are the significant players in the site cleanup. Questions often arise about compliance and enforcement, but they are responded to by an entity other than EPA. The EPA Headquarters and EPA Region 4 offices that relate to federal facilities must be proactive in ensuring public participation and addressing environmental justice concerns within their authority.

- **Work with communities to identify and prioritize issues of concern to be addressed by DOE and SRS.** Collaborative efforts to address issues of concern of the environmental justice communities related to cleanup and health should be a priority of the site. Mechanisms to identify and prioritize concerns must be expanded and improved. Annual sessions can be held to dialogue with community leaders in setting the agenda of engagement for the upcoming year depending on the cleanup schedule and other site activities. Environmental justice communities are looking for more viable ways to get their voice heard and honored by DOE and SRS.

- **Collaborate with environmental justice communities on the best ways to address health concerns.** The concern related to health impacts continues to be a priority issue. Environmental justice communities want to know about past and potential health impacts. A strategy should be developed to determine how to address health issues, especially since the resources made available to CFEJ preclude them from addressing health-related questions. Not having a formal method to address the health factor contributes to the growing mistrust of the site and DOE. The communities are seeking ways to have at least an initial dialogue. A failed collaboration with ATSDR created frustration in environmental justice communities about who would examine their concerns and questions related to health. The communities recommend that DOE/SRS work with the environmental justice communities on creating a community health agenda.

- **Translate cleanup activities, cost, and technology to basic language and use the environmental justice community's approaches to the dissemination of the information.** Publish in a creative format using laypeople's terms, and include an acronym and definitions sheet, a summary of cleanup activities, the technology to be used, and the cost of cleanup. Work with leaders of environmental justice communities to identify the best and most effective venues to get the information to the people. Local churches, the National Association for the Advancement of Colored People (NAACP) chapters, and environmental justice groups should be provided resources to assist in this process. Public participation is greatly improved when people understand the basics of what is transpiring. The community has a right to know, and that right is guaranteed under law. Scientific and technical documents must be translated into a language that assists people in providing meaningful input and advice.

APPENDIX B:

FEDERAL FACILITIES WORKING GROUP'S CONVERSATION GUIDE

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FFWG SITE-SPECIFIC STAKEHOLDER CONVERSATION GUIDE
NATIONAL ENVIRONMENTAL JUSTICE ADVISORY COUNCIL
FEDERAL FACILITIES WORKING GROUP

On <<insert date of site visit>>, the National Environmental Justice Advisory Council Federal Facilities Working Group will be visiting <<city and state of site>> to meet with relevant stakeholders and the community of the <<name of site>>. Some of the Working Group members, as well as the Working Group's Designated Federal Official and a member from its support contractor, would like to meet with you for about 30 minutes to learn about your experiences and perceptions around cleanup, community involvement, and environmental justice issues at <<name of site>>. The Working Group also would like to hear your views about how the <<name of lead Federal agency>> and environmental regulators address the community concerns at this site. If you are not able to meet with us during the specified dates listed in the enclosed letter, you may arrange to talk with the Working Group over the telephone or send written comments. To schedule an interview, either in person during the Working Group's visit or by telephone, or to send written comments, please contact the Designated Federal Official, Trina Martynowicz with the U.S. Environmental Protection Agency at (703) 603-0051 or martynowicz.trina@epa.gov.

The Working Group suggests you discuss and describe the following issues related to the <<name of site>>:

Site Description
- your relationship to the <<name of site>> in the past and currently and how you became involved at the site.
- the relationship among EPA, the <<name of site>>, the <<state of site>>, and the community.
- past/current/future mission, nature of contamination, and cleanup plan of the <<name of site>>.
- environmental contamination, as you understand it, at the <<name of site>>and basis of this knowledge.
- other potential environmental problems or major polluters in the vicinity of the <<name of site>>.
- any other environmental issues at the <<name of site>>.

Demographics and Multi-Generational Uses
- location of the <<name of site>>and surrounding community, as well as the demographics, economics, and race of nearby communities.
- your relationship to the location of the <<name of site>>.
- length of history of the community's concerns or impacts from <<name of site>> (such as multi-generational concerns).

Cleanup Program
- current state or stage of cleanup at the <<name of site>>.
- adequacy of how well the cleanup program informs, listens, addresses the concerns of, consults with, and involves the general public in the decision-making process.

Involvement and Participation
- level of community involvement and participation at the <<name of site>>.
- existence, function, and composition of the Advisory Board and its adequacy in fulfilling its mission.
- any previous studies, evaluations, or analysis conducted of the <<name of site>> or of the Advisory Board and its results.
- similarities/differences between community members concerns at the <<name of site>>.

Communication
- method and means of learning about issues at the <<name of site>>

- method and means of distributing information to the public about the <<name of site>>
- adequacy of education/information sharing of activities at the <<name of site>>.
- local and state government's role/representation of the community in relation to the <<name of site>>; adequacy of the responsiveness to the community's concerns.
- limit to the community's involvement due to language, race, culture barriers or disabilities.
- method and means of distributing information about the <<name of site>> and accommodating those that speak languages other than English.
- environmental justice studies or analysis conducted at the <<name of site>> and outcome/results.

Environmental, Health, and Economical Impacts

- any type of disproportionate impacts affecting the community from the <<name of site>>.
- potentially known environmental or health impacts from the <<name of site>>.
- if activities at the <<name of site>>impact communities' traditional, cultural, or subsistence activities (such as subsistence fishing, hunting, plant or berry gathering, or livestock grazing); adequacy of the cleanup program taking these issues into account.
- transportation concerns from the <<name of site>>.
- economic impacts/benefits from the closure and reuse of the <<name of site>>.
- contamination and/or cleanup impact the reuse of the <<name of site>>.

Technical Assistance, Resources and Capacity Building

- tools, resources, and/or political power of the community to influence decisions at the <<name of site>>or elsewhere in the community.

Responsiveness

- responsiveness of the <<name of site>>, EPA, state, or local government officials to the community's concerns, compared to the community at large.
- any constant changes in personnel and their effects at the <<name of site>>, EPA, or state government.

Tribal Governments

- direct or indirect effects to American Indians or nearby Tribes from <<name of site>> activities.
- legal or traditional custom usage rights to the lands currently occupied by <<name of site>>.
- adequacy and effectiveness of government-to-government consultation between the Tribe and <<name of site>> and <<lead Federal agency>>.
- response to traditional uses, cultural practices and/or subsistence living; adequacy of responses from the <<name of site>>, EPA, state, or local governments.
- other specific tribal issues or concerns identified at <<name of site>>

APPENDIX C:

MEMORANDUM OF UNDERSTANDING AMONG EPA, DOD, DOE, AND DOI

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MEMORANDUM OF UNDERSTANDING
BETWEEN THE
U.S. DEPARTMENT OF DEFENSE
OFFICE OF THE DEPUTY UNDER SECRETARY OF DEFENSE
(ENVIRONMENTAL SECURITY),
THE
U.S. DEPARTMENT OF ENERGY
OFFICE OF ENVIRONMENTAL MANAGEMENT,
THE
U.S. DEPARTMENT OF INTERIOR
OFFICE OF POLICY, MANAGEMENT AND BUDGET,
AND THE
U.S. ENVIRONMENTAL PROTECTION AGENCY
OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE

I. PURPOSE

The purpose of this Memorandum of Understanding ("MOU") is to establish policies and procedures for the general working agreement between the Office of the Deputy Under Secretary of Defense (Environmental Security) of the U.S. Department of Defense ("DoD"), the Office of Environmental Management of the U.S. Department of Energy ("DOE"), the Office of Policy, Management and Budget of the U.S. Department of Interior ("DOI"), and the Office of Solid Waste and Emergency Response ("OSWER") of the U.S. Environmental Protection Agency ("EPA") in support of the EPA's National Environmental Justice Advisory Council ("NEJAC") Federal Facility Working Group ("Working Group").

II. BACKGROUND

The Federal Facilities Working Group was chartered by NEJAC in response to public comments received regarding federal facility issues at NEJAC meetings. The Working Group extends beyond the current NEJAC membership to assess environmental justice issues at these federal facilities. The participation of and support from EPA's federal partners is essential for this Working Group's successful performance. A coordinated effort between DoD, DOE, DOI, and EPA will provide an important and necessary source of support and input for the Working Group's efforts and serve as a model of partnership for future such endeavors.

III. AGREEMENT

DoD, DOE, DOI, and EPA will develop and improve their cooperative working relationship through collaborative action in support of the NEJAC Federal Facilities Working Group. Support may include: sharing knowledge, collecting and disseminating information on federal facilities and policies, logistics coordination, and assisting product development.

IV. PROGRAMMING, BUDGETING, FUNDING, AND REIMBURSEMENT ARRANGEMENT

A. This MOU is neither a fiscal nor a funds obligation document. Any endeavor involving reimbursement or contribution of funds among the Parties to this MOU will be handled in

accordance with applicable laws and regulations and procedures, and will be subject to separate, subsidiary agreements that shall be effected in writing by representatives of all Parties.

B. This MOU in no way restricts DoD, DOE, DOI, or EPA from participating in similar activities or arrangements with other entities or Federal agencies.

C. Other Federal agencies may participate in the Working Group and enter as a signatory to the MOU.

D. Nothing in this MOU shall obligate DoD, DOE, DOI, or EPA to expend any funds, appropriated or non appropriated, or to enter into any contract or other obligations.

V. AUTHORITIES

The authorities governing this MOU are as follows:

The Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA), as amended.

The Resource Conservation and Recovery Act (RCRA), as amended.

The National Environmental Policy Act of 1969, as amended.

Executive Order 12898 on Environmental Justice.

Executive Order 13084 on Consultation and Coordination with Indian Tribal Governments.

VI. EFFECTIVE DATE

This MOU will become effective upon signature by all parties and shall remain in effect until termination by any party. Any party may terminate this MOU upon 90 days written notice to the other Party(ies). Its provisions will be reviewed annually and amended or supplemented as may be agreed upon mutually.

VII. OTHER MOUs

There are no superseding MOUs on this topic between the Parties hereto.

12/11/00

Sherri W. Goodman
Deputy Under Secretary of Defense
(Environmental Security)
U.S. Department of Defense

12/11/2000

Dr. Carolyn L. Huntoon
Assistant Secretary for
Environmental Management
U.S. Department of Energy

12-11-00

Lisa Guide
Acting Assistant Secretary for
Policy, Management and Budget
U.S. Department of Interior

12/11/00

Timothy Fields, Jr.
Assistant Administrator
Office of Solid Waste and Emergency Response
U.S. Environmental Protection Agency

Date

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APPENDIX D:

ACRONYMS LIST

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ACRONYMS LIST

ALS	Amyotrophic Lateral Sclerosis or Lou Gehrig's Disease
ATSDR	Agency for Toxic Substances and Disease Registry
BCT	Base Cleanup Team
BEC	BRAC Environmental Coordinator
BLM	Bureau of Land Management
BRAC	Base Realignment and Closure
CAA	Clean Air Act
CAB	Citizens Advisory Board
CAG	Community Advisory Groups
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act or "Superfund"
CFEJ	Citizens for Environmental Justice
CRS	Community Relations Specialist
CWA	Clean Water Act
DDMTCCC	Defense Depot Memphis, TN, Concerned Citizens Committee
DFO	Federal Designated Official
DoD	Department of Defense
DOE	Department of Energy
DOH	Department of Health (State of Washington)
DOI	Department of Interior
DLA	Defense Logistics Agency
EIS	Environmental Impact Statement
EMS	Environmental Management Support, Inc.
EPA	U.S. Environmental Protection Agency
EPCRA	Emergency Planning and Community-Right-to-Know Act (CERCLA Title III)
FACA	Federal Advisory Committee Act
FFA	Federal Facility Agreement
FFC(A)	Federal Facility Compliance (Act)
FFERDC	Federal Facilities Environmental Restoration Dialogue Committee
FFWG	Federal Facilities Working Group
FUDS	Formerly Used Defense Sites
GKDA	Greater Kelly Development Authority
HAB	Hanford Advisory Board
MDA	Missile Defense Agency
MOU	Memorandum of Understanding
NAACP	National Association for the Advancement of Colored People
NEPA	National Environmental Policy Act
NEJAC	National Environmental Justice Advisory Council
NESHAP	National Emission Standards for Hazardous Air Pollutants
NPDES	National Pollutant Discharge Elimination System
NPL	National Priorities List
OB/OD	Open Burning and Open Detonation Grounds
PCB	polychlorinated biphenyls
PCP	pentachlorophenol
RAB	Restoration Advisory Board
RCRA	Resource Conservation and Recovery Act
RI	Remedial Investigation
ROD	Record of Decision

SARA	Superfund Amendments and Revitalization Act
SCDHEC	South Carolina Department of Health and Environmental Control
SDWA	Safe Drinking Water Act
SRS	Savannah River Site
SSAB	Site-Specific Advisory Board
SWU	Southwest Workers Union
TAG	Technical Assistance Group
TAPP	Technical Assistance for Public Participation
TCE	trichloroethylene
TCEQ	Texas Commission on Environmental Quality
TDEC	Tennessee Department of Environment and Conservation
TOSC	Technical Outreach Services for Communities
TSCA	Toxic Substances Control Act
UXO	Unexploded Ordnance
WSRC	Westinghouse Savannah River Company

APPENDIX E:

LETTER FROM SHAWNA LARSON, FFWG MEMBER

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My name is Shawna Larson and I serve on the Federal Facilities Working Group. I am Athabascan from the village of Chickaloon where I serve on my Traditional Tribal Council. I also work for Alaska Community Action on Toxics and Indigenous Environmental Network as the environmental justice coordinator.

I have requested to have this documentation added to the report to express my concern and frustration over the fact that the Federal Facilities Working Group has not allowed consideration of Alaska when looking at Formerly Used Defense sites in the United States. When I asked about this issue I was told that there were not enough funds to have any site visits in Alaska. This comes as a shock to me considering that we have over 600 FUDS (including the worlds largest underground nuclear test site at Amchitka and several DOE sites). We also have nearly half the nation's tribes here in Alaska, for which EPA has a government-to-government responsibility.

From my understanding, we are only sending two to three people from our working group to all the sites chosen except the South Carolina site. It does not make sense why there would not be enough funds to send two people to Alaska if a community was interested in hosting a site visit.

As a native person that is directly affected by military sites and as an environmental justice coordinator, I must submit this formal protest to the final report. I hope that in the future EPA will recognize that Alaska must be included in all aspects of Environmental Justice efforts.