



FOCUS GROUP
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NASA PLUM BROOK STATION REACTOR FACILITY DECOMMISSIONING COMMUNITY RELATIONS PLAN

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REVISION 2

For
NASA Glenn Research Center
Plum Brook Station
Sandusky, Ohio 44870

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**NASA GLENN RESEARCH CENTER
PLUM BROOK STATION
SANDUSKY, OHIO**

**REACTOR FACILITY DECOMMISSIONING
COMMUNITY RELATIONS PLAN**

1.0 OVERVIEW OF COMMUNITY RELATIONS PLAN

This document is the Community Relations Plan for the Decommissioning of the former nuclear test reactors at NASA Glenn Research Center's satellite facility, Plum Brook Station. This plan: (1) summarizes the history of the Reactor Facility; (2) updates activities undertaken by NASA since the initial Community Relations Plan was published in 1999; (3) identifies the various audience/stakeholder groups; (4) identifies community questions, concerns and information needs regarding the project, and preferences for communication; and (5) describes the activities for communicating with the public and responding to information needs.

The purpose of this Community Relations Plan (CRP) is to lay out the mechanisms for informing and involving the public in activities and decisions related to Plum Brook Station's Decommissioning Project. This plan also describes the results of NASA's community relations efforts since 1999, consistent with the plan and provides additional information on current community perceptions and information needs. While preparation of a CRP was not required for the Decommissioning of the Reactor Facility at Plum Brook Station, this plan meets the requirements for Public Participation outlined by the Nuclear Regulatory Commission's (NRC) Final Rule of License Termination, FR Vol. 62, No. 139, 7/21/97. In addition, the plan makes use of guidance from the U.S. Environmental Protection Agency's (EPA) Community Relations in Superfund: A Handbook, Directive 9230.0-03c January, 1992.

NASA's overall objectives of this Community Relations Plan are to:

- **Inform the public of planned and ongoing activities.** Providing information to the public on NASA's Decommissioning Project includes making information accessible and understandable. Community Relations activities are designed to inform the local public about the Decommissioning Project, address any environmental, public health, safety or welfare concerns, describe the steps involved in decommissioning and cleanup, and provide the public with the status of all project activities.
- **Educate and provide sufficient information to the general public** on the Decommissioning process and cleanup activities, to enable the public to have meaningful input. NASA recognizes that elements of the Reactor Facility Decommissioning will be extremely important to the surrounding community. NASA wants to carry out Decommissioning with the benefits of the public's input.
- Provide sufficient outreach to the general public, **to ensure that information on Decommissioning Activities reaches as wide and diverse an audience as possible.** The community relations activities described in this plan are designed to facilitate providing all members of the general public with sufficient access to information and keeping the community

informed. Community Relations efforts have been – and will continue to be – tailored to the distinct needs of the surrounding communities while being tied to the technical schedule of activities.

- **Provide the public with the opportunity to express their questions and comments** on NASA's Decommissioning Plan and cleanup activities. Mechanisms for two-way communication, and NASA's accomplishments in this area, are highlighted to ensure that a dialogue exists between the public and NASA. Two-way communication provides the public with meaningful information while providing NASA staff with information on the public's questions, concerns, values and perceptions. By maintaining a dialogue with the public, decommissioning activities have been – and will continue to be – designed and implemented to more effectively address the community's concerns and needs.
- **Maintain trust and positive image of NASA Glenn Research Center.** Community Relations activities are designed to ensure that NASA Glenn and Plum Brook Station staff maintain their positive relationship with community members in Erie County and the Perkins Township and Sandusky areas and, maintain the overall credibility of NASA Glenn Research Center throughout the Decommissioning Project.
- **Facilitate meeting the Decommissioning Project overall project goals.** Specifically, the project goals of: (1) To protect the health and safety of the public, workers and the environment and, (2) To maintain and promote positive relationships with the community through ongoing communications and feedback.

Section 2 gives the history and a description of Plum Brook Station. Section 3 provides background on the communities in the vicinity of Plum Brook Station and a chronology of Plum Brook Station and – especially – Decommissioning Project community outreach efforts since 1999. Section 4 summarizes the interviews conducted to prepare this plan and the results of more recent community focus groups to evaluate the effectiveness of information and outreach efforts to date, and Section 5 describes methods of communication and recommended outreach methods.

2.0 SITE DESCRIPTION AND HISTORY

2.1 Site Description

Plum Brook Station (PBS) is located 56 miles west of Cleveland, near Sandusky, Ohio, and is situated on 6400 contiguous acres, 2600 of which are used as a buffer zone. Most of Plum Brook Station is located in the Perkins and Oxford townships of Erie County, with some land in the Huron and Milan townships to the east. Plum Brook Station boundaries include Bogart Road to the north, Mason Road to the south, U.S. Highway 250 to the east, and County Road 43 to the west. (*See figure 1*) An 8-foot security fence surrounds Plum Brook Station, and several test sites have additional security fencing. There are 125 permanent structures on the grounds, 99 of which are large, reinforced concrete bunkers that are currently used for materials, equipment, and records storage. An internal paved road system, totaling 62.5 miles, connects the buildings.

2.2 Site History

The history of Plum Brook Station dates back to 1941, when the War Department acquired about 9,000 acres of land to construct a munitions plant. The plant, then called the Plum Brook Ordnance Works--named after the creek running through the site--produced munitions, such as TNT, until the end of World War II. After the war, the land remained idle until 1956, when the National Advisory Committee for Aeronautics (later known as NASA) obtained 500 acres for the construction of a nuclear research reactor facility. The Reactor Facility, designed to study the effects of radiation on materials used in space flight, was the first of fifteen test facilities to eventually be built by NASA at Plum Brook Station. By 1963, NASA had acquired the remaining land at Plum Brook Station for these additional facilities.

In 1962, NASA began operation of the Reactor Facility, which included a 60-megawatt nuclear test reactor and a 100-kilowatt mock-up reactor under a license from the Nuclear Regulatory Commission (NRC). The Reactor Facility is located on 27 acres of land, which is surrounded by an eight-foot chain link fence. In 1973, after successfully completing the objective of landing humans on the moon and returning them safely to earth, NASA was faced with severe budget reductions, as voted by Congress. As a result, NASA decided to defer many of its longer-term research and development programs, pending the availability of funds, and cease operations at several research facilities across the country, including those at Plum Brook Station. One of the facilities shut down was the Reactor Facility.

**Figure 1. Location of the Plum Brook Reactor Facility at Plum Brook Station
(Modified from NASA, 1980a)**

NASA developed detailed procedures for the Reactor Facility shutdown, which involved extensive monitoring and ensuring that the reactor was made inoperable but preserved in the event that the facility might ever be needed or reopened. Services such as water and sewer were disconnected and all connections were sealed to avoid the possibility of any water entering or exiting the facility. At the time the facility was closed in 1973, all the fuel, and any other radioactive waste material, was removed and transported, via trucks - in approved containers or casks - to a Department of Energy Facility in Idaho for reuse or disposal. The reactors were then placed in a safe, secure and dry storage mode and maintained under a "Possess But Do Not Operate" license agreement with the NRC. A small staff from Plum Brook Station provided security and maintained the Reactor Facility. Monitoring of the facility was performed to verify that shutdown was effective. Under the terms of its license, NASA continued to monitor the Reactor Facility, and the area surrounding it. That monitoring was subsequently increased when NASA began preparation for and subsequently initiated decommissioning (see below). Monitoring will continue throughout decommissioning until such time as NASA's license is terminated and the clean up goal achieved.

By the early 1980's, NASA recognized the Reactor Facility would never be reopened and considered decommissioning the facility. In 1985, NASA performed an inventory of the radioactive isotopes remaining in the facility to evaluate the extent of radioactive decay. Results showed a significant reduction in the level of radioactivity since the facility closed. Given the lack of funding and reliable disposal facilities for decommissioning, NASA requested an extension to their NRC permit. Additional maintenance was performed to ensure continued safe, dry and secure storage of the facility. In the nearly 30 years since the reactor's shutdown, the level of radioactivity has continued to decrease because short half-life isotopes have already significantly decayed.

In 1997, NASA applied for a renewal of its "Possess But Do Not Operate" license and the NRC requested that NASA complete decommissioning of the Reactor Facility. NASA subsequently committed to proceeding with the decommissioning process. In 1997, NASA conducted a detailed alternatives analysis to evaluate alternatives for cleanup of the Reactor Facility. After careful and thorough analysis of alternative approaches to decommissioning (and considering the fact that more than 99% of the remaining radioactivity is contained within the reactor building), NASA selected the safest and most thorough alternative for decommissioning. This preferred alternative was included in the Decommissioning Plan that NASA submitted to the NRC in December 1999. The alternative for decommissioning the Reactor Facility involves several steps including removal and disposal of all radioactive components, equipment and materials. All the low-level radioactive waste will be safely packaged and shipped by truck for reprocessing or disposal at licensed facilities. After removal and disposal of all radioactive components, equipment and material, NASA will thoroughly decontaminate and remove all Reactor Facility buildings and structures to three feet below grade, and then backfill these areas with clean fill. At the end of decommissioning, the area will meet the NRC's strict cleanup level for unrestricted use. Unrestricted use means that a person could safely live on the land where the Reactor Facility was located, eat crops grown on the land and even drink the groundwater. Only after there has been a final site survey to confirm that NASA has met the cleanup level will the NRC terminate NASA's license.

Subsequent to filing the Decommissioning Plan with the NRC, NASA took several other related steps. In preparation for decommissioning, NASA made sure environmental issues received the considerable attention they deserve. The National Environmental Policy Act (NEPA) process provides a framework

for federal agencies to follow when conducting an environmental review. The NEPA process mandated that NASA undertake an Environmental Assessment (EA), which outlined the major action that the federal government agency – NASA – was planning to undertake: namely, decommissioning. NASA conducted its Environmental Assessment (EA) for Decommissioning in 2000. The EA considered a number of areas, including:

- Air quality & meteorology
- Water resources
- Waste generation, treatment, transportation & disposal
- Geology, soils & topography
- Noise, sonic boom & vibration
- Toxic substances and hazardous materials
- Biological resources & ecology
- Radioactive materials & non-iodizing radiation
- Endangered & threatened species
- Historical, cultural & archeological resources
- Wetlands, floodplains & prime or unique farmland
- Land use
- Socioeconomic factors (if related to impacts to natural or, physical factors)
- Accidents involving hazardous, toxic or radioactive materials
- Environmental justice
- Pollution prevention
- Public health & safety
- Stratospheric ozone depletion & global climate change

NASA published a Draft Environmental Assessment (EA) in the Federal Register in November 2000 and received no public comments. The EA was subsequently finalized and on January 26, 2001, NASA initiated a 30-day public comment period on the EA, advertising (in five area newspapers) that the EA was available at local libraries for public review and comment. NASA received no public comments during this period, indicating public acceptance of NASA's Environmental Assessment. The EA resulted in a Finding of No Significant Impact (FONSI) on the earth, air or water in and around Plum Brook Station as a result of the possible impacts of decommissioning. NASA advertised, beginning on April 5, 2001, a Finding of No Significant Impact (FONSI) and provided a 45-day public comment period on the FONSI, which ended on May 20 2001. Again there were no public comments on the FONSI.

As was mentioned above, NASA has monitored the site both since it was operational and subsequent to its 1973 closure, to detect any potential release of radiation. Beginning in May 2001, NASA increased its monitoring program, which includes air, surface water, groundwater and sediment. NASA conducts continuous air monitoring and analyzes air sampling onsite six times per week, and sends composite samples to an offsite laboratory – for additional analysis – on a quarterly basis. NASA also has installed devices – termed thermo luminescent dosimeters (TLD's) – on its air monitors to detect any radiation in the environment. These TLD's are analyzed six times per month for background radiation levels. NASA also samples sediment (6 times per month), groundwater (twice a month) and surface water (5 times per month) and sends the samples to a certified off-site lab for analysis. To date, the results of air, sediment and water samples have been similar to normal background radiation levels for this part of Ohio.

Background radiation refers to the amount of radiation the average American receives annually from natural and man made sources such as naturally occurring radon, cosmic rays from the sun, and consumer products.

In addition to the EA, NASA also prepared a comprehensive Environmental Baseline Survey, published in May 2001, which describes the environmental resources and habitat of the 27-acre Reactor Facility site. The Environmental Baseline Survey identified data needs to guide subsequent Reactor Facility characterization efforts. NASA also developed an Environmental Management Plan, published in July 2001, which is currently being revised. The Environmental Management Plan provides an overarching plan for how all environmental aspects for the Decommissioning project are to be carried out.

While awaiting approval of its Decommissioning Plan from the NRC, NASA continued work developing its plans and procedures for decommissioning and responding to NRC requests for additional information. NASA formalized this process by submitting a Revised Decommissioning Plan in March 2001. Soon after, NASA began conducting pre-decommissioning activities, work that could be conducted under the terms of its then-existing license with the NRC to prepare the site for full decommissioning. These activities included restoring cranes and other systems to use, as well as inventorying and collecting items that may have historical significance (such as operating logs and NASA memorabilia).

Pre-decommissioning also involved the removal of loose equipment and tools from the “Hot Cells” area of the facility – areas used to perform experiments when the facility was operational – and another part of the facility that was used for what is known as Hot Dry Storage. In June of 2001, crews of highly specialized and trained workers began removing material from the seven “Hot Cells,” surveyed it for radiation and packaged it in special containers for safe storage within the Reactor Facility. Then, on August 8, 2001, crews safely moved the containers to a truck for shipping, again surveyed the contents for radiation and sent the shipment to the Alaron reprocessing facility in Pennsylvania, where it arrived safely that evening.

The remainder of pre-decommissioning work included surveying and characterizing materials from the Hot Dry Storage area. The materials from this area of the Reactor Facility will be safely removed and disposed of offsite during decommissioning. Pre-decommissioning did not include disassembling or disturbing any structure or equipment already fastened in place.

The NRC approved NASA’s Decommissioning Plan on March 20, 2002 and amended NASA’s license. NASA began decommissioning work immediately after the NRC approval of the Decommissioning Plan. To date, surveying, inventorying and characterizing loose equipment for radiation in the Reactor Facility’s containment vessel quadrants and canals has been completed. This loose equipment has been safely packaged and is being stored for eventual transport and disposal offsite early in 2003. Inventorying the fixed equipment in the four quadrants has also been completed as part of the planning for removal of the fixed equipment, which will also occur some time early in 2003. A more detailed characterization of the amounts and specific type of radiation in the quadrants has now begun, with completion expected by the end of 2003.

In the fall of 2002, NASA removed asbestos and lead from within the Reactor Building that dated back to when the Reactor Facility was operational. This material was identified for removal and proper disposal early on in the decommissioning planning process. The removal of this material is necessary to ensure

that upcoming work on the project is conducted safely. The asbestos and lead contaminated material are being safely stored and will be shipped offsite to a licensed disposal facility early next year. In November 2002, the Decommissioning Team began installation of a cask transfer system. This system will be used for transferring the cut pieces of the reactor internals and containment vessel to a designated, safe storage area of the Reactor Facility once segmentation activities begin early in 2003. Work on removal of the remaining loose equipment and fixed equipment in the reactor quadrants was also initiated in late November. Finally, NASA conducted an investigation of the Reactor Tank internals as another important step to planning the Reactor Tank segmentation activities.

Segmentation or disassembly is a major and important part of decommissioning. Beginning in February 2003, a NASA contracting crew will begin the task of cutting apart, or segmenting, the metal that comprises the reactor internals and tank. NASA decided on segmentation of the reactor tank early on in the decommissioning process as the preferred approach because the highest amounts of radiation are contained in the reactor tank; thus removal of the tank will decrease worker radiation exposure over the long haul. In addition, the reactor tank is constructed such that the reactor core is encased in concrete shielding with piping running through it. Back when the Reactor Facility was operational and the reactor tank contained radioactive fuel, the concrete afforded maximum protection to ensure the safety of reactor workers. But 30 years after the reactor ceased operations and its fuel was removed, the concrete makes removing the tank intact much less feasible from a logistical standpoint.

Segmentation work is expected to last approximately 15 months. During this period, much of the cutting will be done remotely, using a separate work platform. As part of the comprehensive focus on protecting the public, the workers, and the environment, NASA will employ a number of engineering controls, including a portable ventilation system for minimizing airborne contamination, known as a High Efficiency Potential Air (HEPA) filter system. The crew will also make use of a special enclosure known as a "glove bag" to further minimize the generation and release of contamination. The ventilation system inside this "glove bag" will be kept at a slightly negative air pressure (compared to outside the reactor containment vessel), such that air will come into the enclosure - not escape it.

During segmentation, there will be continuous monitoring and sampling of the air inside and outside the containment vessel. This monitoring will help NASA track the efficiency of all these efforts. The samples will be analyzed onsite, enabling NASA to take rapid response measures if needed. As the equipment is taken apart during segmentation, NASA will use a crane to move the cut pieces to a staging area in the Reactor Facility's quadrants. Crews will place the pieces into cylindrical steel liners roughly five feet in diameter and six feet tall, to meet disposal requirements. The liners will be wrapped in plastic to protect it from contamination, lifted by the crane and rolled into the containment vessel via the task/liner transfer system. Once a liner is filled, crews will seal the liners, survey them for radiation and store them a secure area. Later, they will again lift the liner with the crane, remove the plastic and place the liners in specially designed containers called casks. The cask will be sealed, surveyed and rolled out of the containment area using the cask transfer system and the crane will lift the casks onto a "lowboy" (large flatbed) truck. Then the driver, truck and contents will be surveyed for radiation before departure to a licensed reprocessing or disposal facility.

The volume of waste to be trucked off site is expected to be one – two shipments of low level radioactive waste per week during the period of peak activity in 2003 and 2004. Throughout decommissioning, NASA will coordinate shipments with local authorities, including the Erie County Emergency

Management Agency and Perkins Police Department. For security purposes, NASA will not provide exact shipment dates to the public but will provide general schedule information and note when the shipments have been successfully completed. We will include these updates on our 24-hour, toll-free Information Line at 1-800-260-3838 and on the Status of Decommissioning page of our decommissioning Website at www.grc.nasa.gov/www/pbrf.

NASA expects to complete decommissioning by the end of 2007. At the end of decommissioning, the area will meet the NRC's strict cleanup level for unrestricted use. Only after there has been a final site survey to confirm that NASA has met the cleanup level will the NRC terminate NASA's license.

Apart from decommissioning the Reactor Facility, Plum Brook Station remains an active and NASA test facility. Occasionally, trucks with large pieces of equipment and/or empty containers associated with NASA's ongoing testing activities may enter and leave the site.

3.0 COMMUNITY BACKGROUND

The purpose of this section of the Community Relations Plan is to profile the communities surrounding the Plum Brook Station facility.

Plum Brook Station is located in the Erie County area of Ohio, which is divided into nine townships. Of these nine townships, Plum Brook Station lies in part of four: Perkins, Oxford, Huron, and Milan. Within these four townships, the two largest cities are Sandusky, located three miles from Plum Brook Station in Perkins Township, and Huron, located five miles from Plum Brook Station in Huron Township. In addition, there are the villages of Kelleys Island (the largest U.S. island in Lake Erie), Milan, Bay View, Berlin Heights, and Castalia.

3.1 Erie County

Erie County is situated in north central Ohio, along the shore of Lake Erie. The history of Erie County dates back to the years before the War of 1812. During that time the area was known as the "Ogontz"; named after the chief of the Ottawa Indian village located there. During the Revolutionary War, many Connecticut-area residents were burned out of their homes by the British. The Connecticut Assembly later gave these individuals 500,000 acres in what was then referred to as the Western portion of the Western Reserve (later known as the Firelands), where Erie County lies today. Erie County is recognized for its many historical contributions, including the Underground Railroad, and a Civil War prison camp for Confederate Officers, which was located on Johnson's Island, across the bay from Sandusky.

Erie County is 264 square miles in area, and is 603 feet above sea level. It is bounded by Lorain County to the East, Huron County to the South, Sandusky and Ottawa Counties to the West, and Lake Erie to the North. Erie County has 35 miles of shoreline along Lake Erie and Sandusky Bay. The population of Erie County as of 2000 was 79,551 and the per capita income in 2000 was \$21,530.

Erie County's location on Lake Erie makes it a prime tourist area that contributes \$380 million to the local economy. Approximately six million people visit each year. Eighty percent of the tourists come from Ohio, Michigan, and Pennsylvania. Recreation in Erie County includes beaches, boating, fishing, wineries, museums, Kelleys Island State Park, and the Cedar Point Amusement Park. Three-and one-half million people visit Cedar Point each year between the months of May and October.

Erie County's economy relies heavily (about 25%) on the tourist industry, while agriculture is also a major contributor. More than 50% of the county's land is devoted to agricultural purposes. The flat terrain and the tempering effect of Lake Erie helps to stabilize the growing season, making farming and fruit orchards important to the economy. Other typical crops include corn, wheat, soybeans, tomatoes, apples, and grapes. Erie County is also one of Ohio's major producing and exporting areas for certified and commercial field crop seeds. Other major sources of non-manufacturing employment in the Erie County area are the County of Erie, Firelands Community Medical Center (which includes the merged Providence Hospital) and the Sandusky City Schools. Manufacturing supports approximately 30% of the area's economy. Five of the largest manufacturers in the area produce automotive parts: Delphi Chassis Systems, Visteon Corporation, Freudenberg-NOK, Tenneco Automotive, and Lear. Other major industries in the area manufacture food processing equipment, paint, and pots and trays for horticulture.

Erie County's highway system includes its Interstate Highway - the Ohio Turnpike - that runs East-West. There are two U.S. Highways 250 and 6 that run North-South and East-North/West, respectively. In addition, there are eleven state highways running, at least in part, through Erie County. The Amtrak railway system and Greyhound Bus Lines also run through Erie County and trucking is provided by 31 intra- and inter-state carriers.

Universities and colleges located within Erie County are: the Ohio Business College in Perkins Township; the Firelands College of Bowling Green State University (a.k.a. BGSU Firelands), in the city of Huron; the University of Toledo, 45 miles west of Sandusky; Bowling Green State University, in the city of Bowling Green, 50 miles west of Sandusky; and Ashland University, in the city of Ashland.

Erie County government consists of three elected Commissioners and a number of appointed officials. The County Commissioners - led by a Chairperson - meet once a week, generally on Mondays (sometimes, a Thursday meeting is added). There is also an elected five member Board of Education, which appoints a Superintendent. Other elected officials in Erie County include the Sheriff (who leads a force of approximately 30 uniformed officers), as well as the following: Auditor, Treasurer, Coroner, Engineer, Recorder, Clerk of Courts, Prosecutor and Judges (in the Common Pleas, County, Family and probate Courts). There are also a number of important appointed positions in the Erie County government. These include the County Administrator, Emergency Management Coordinator, Sanitary Engineer (Environmental Services, Water and Wastewater Treatment), Health Department Administrator, Soil and Water Conservation Director, Finance Director, Regional Planning Director, Human Services Coordinator, and Superintendent of Buildings and Grounds.

Perkins Township

Located directly south of Sandusky, Perkins Township has a population of 12,578 living in 4,735 households, according to the 2000 Census, making it the largest of the nine townships in Erie County. Its 2000 and per capita income was \$24,281. Approximately 6% of Perkins Township consists of racial minorities, most of whom are African American. Most of this population lives in two small neighborhoods – Holmesville and Searsville – which are located in the northern part of the Township, just south of Perkins Avenue and the city of Sandusky. Perkins Township, like the nearby Townships of Huron and Milan, has increased its population, due to the development of new subdivisions.

Several streets in Perkins Township border the fence line of Plum Brook Station. They include Taylor Road, Columbus Avenue, Cambridge Circle, West Bogart Road, Milan Road (a.k.a. US 250), Patten Tract Road, Ransom Road, S. Campbell Street, Fox Road and Schenk Road. Many are located near two of Plum Brook Stations four gates, including the main gate at the northern end of Plum Brook Station (6100 Columbus Avenue, adjacent to Taylor Road). The streets nearest this gate include Taylor Road, Cambridge Circle, Columbus Avenue and Botay Road. Patten Tract Road runs close to the western end of Plum Brook Station.

Several other streets, including East Bogart Road, Lake Wilmer Drive, Lake Court, Normandy Court and Walt's Lake Trail lie within 1.5 miles of Plum Brook Station's northern fence line. In all, there are more than 200 homes within 1.5 miles of the northern fence line (and a total of close to 300 houses and farms that comprise Plum Brook nearby neighbors in Perkins Township). There are additional nearby neighbors on Milan Road and Fox Road, where another gate is located on the east side of the Plum Brook

Station fence line. Between the Fox Road gate at Plum Brook Station and Milan Road (US 250) is a half-mile stretch with just one neighbor – the Erie County Conservation League (7519 Milan Road). On the other side of Fox Road, across US 250 there are 3 farms and 12 houses) within approximately 1.5 miles of the Plum Brook Station fence line.

Perkins Township is bordered by Margaretta Township to the West, Oxford Township to the South, Huron Township to the east and Sandusky to the north. The heavily traveled US Route 250 runs North-South through much of the municipality's commercial district (and eventually to Interstate Highways 80 and 90, while State Highway 2 (the Sandusky Bypass) runs East-West, and virtually bisects Perkins Township, as does County Highway 10. Interstate Highways 80 and 90 are also accessible, via County Highway 43 (also known as Patten Tract Road) or State Highway 4 (also known as the Wright Brothers Memorial Highway).

Like the other surrounding townships, Perkins Township elects a three-person group of Trustees, who meet twice a month (on the second and fourth Tuesday evenings). The Township also has a Clerk, a Superintendent of Schools and a five-member Board of Education. In all, Perkins Township has four public schools, including a high school with a large auditorium, as well as two elementary and one middle school.

Perkins Township has its own fire department and, unlike most Erie County townships, its own police force as well. It also has a Zoning and Building Department, a Highway Department and Engineering Department, to mention a few, but there is no Public Library. Perkins Township is home to regional shopping centers, including the Sandusky Mall, Perkins Plaza, and Park Place Mall, recreational facilities such as the Erie County Fairgrounds and the Sandusky Speedway. It is also the host community to some of the larger industrial concerns in the county, including NASA Plum Brook Station, the Wagner Quarries, the Ohio Veterans Home, and the Perkins Industrial Park.

Sandusky

The city of Sandusky is a port city on Lake Erie and the largest city within Erie County. According to the 2000 U.S. Census, the population was 27,844 a decline from the 1998 Census figure of 28,223 and the 1990 Census figure of 29,764. The per capita income in 2000 was \$18,111. Sandusky has the highest minority population - approximately 7,100 (25%) - of any Erie County municipality. Most Sandusky minority residents are African American with the 2000 US Census indicating an African American population of 5,870 (just under 21% of the city's total population).

According to NASA Glenn Research Center's Environmental Justice Plan (1996), the African American community in Sandusky is located primarily within six census tracts. Between 14% and 35% of the population within these six tracts is African American. Three tracts have at least 20%, with most of this population living in southern and eastern neighborhoods.

Because of Sandusky's proximity to Lake Erie, its economic base is supported largely by heavy industry, which includes foundries, bearing manufacturing, automotive parts, metal fabricating, construction products, and plastics. Sandusky is one of the largest coal ports on the Great Lakes. In addition, tourism is an important contributor to the area's economy. Area marinas, fishing and boating, and Cedar Point Amusement Park, a 15-minute drive from Plum Brook Station, attract many summer visitors. The two primary destinations of tourists in the Sandusky area are Cedar Point and the Lake Erie Islands.

Transportation in Sandusky includes highway access provided by six state and federal routes. The primary arteries are U.S. 6 and State Route (S.R.) 2, East-West; and U.S. Route 250 and S.R. 4, North-South. The Ohio Turnpike is 9 miles south, via U.S. 250, and 7 miles south, via S.R. 4. South of Sandusky lies the S.R. 2 by-pass, with direct access to I-90, which provides a direct expressway to Cleveland and Detroit, MI. There is limited public transportation within the city, but it does offer the Sandusky Transit System. This is an advanced reservation, low-cost, bus service administered and funded by the city of Sandusky. Two major railways service the area: Conrail and Norfolk & Southern. The nearest commercial air services are available in Cleveland, 45 miles to the east and Toledo, 55 miles to the west. In addition, there are two local aircraft facilities, Sandusky Municipal Airport (also known as Griffing Airport) and Erie/Ottawa Regional Airport that can accommodate most types of small aircraft.

Government in Sandusky is administered by a City Commission, consisting of seven members and headed by the Ex-Officio Mayor (referred to as the President of the City Commission). The President is elected by fellow City Commission members. The Commission meets twice a month, on the second and fourth Mondays, beginning at 4:30 PM. The day-to-day operation of Sandusky is in the hands of a City Manager, who is also appointed by the City Commission. Several municipal agencies report to the City Manager, including the Building Department, City Engineer, Community Development/Planning and Zoning Department, Ambulance Emergency Services, Engineering (covering excavation, road construction, sidewalks and streetlights), Public Service (forestry, grounds maintenance and mechanics), and Utility Services (including electricians, sewer and water and pollution control). Public safety services for the city include the Sandusky Police Department, employing 55 full-time and 25 part-time employees and Fire Department, with 57 full-time and 3 inspectors employed.

The Sandusky City Schools include eight elementary schools, three middle schools and one high school (there are also three non-public schools). The public schools are overseen by a five member elected City Board of Education, which generally meets on the second and fourth Mondays of the month, beginning at 8 AM. The Superintendent reports to the Board and carries out Board of Education policy.

Sandusky also has a Library, consisting of a main library downtown, as well as a branch in the city's Follett House Museum, one in the village of Castalia and one in the school on Kelleys Island. Local health services are provided by the Firelands Regional Medical Center, which merged with the former Providence Hospital in 2001.

Huron

Huron is located on the south shore of Lake Erie, at the mouth of the Huron River and was the first town settled in the "Firelands." The population of Huron was 7,958, living in 3,315 households, according to the 2000 U.S. Census (an increase over the 1998 Census of 7,279 and the 1990 U.S. Census figure of 7,067). The 2000 per capita income of Huron was \$24,942. The city has an area of 5.06 square miles and is located in the northeast quadrant of the surrounding Huron Township (which has an overall area of 20.72 square miles).

Because of its location, Huron has always been a very important fresh water port. Presently, area farm commodities, limestone and iron ore are received or shipped from the port. Huron also draws many manufacturing and service industries due to its location. Products range from molded plastics to paint

and resins, and from high-calcium lime used in steel production and water treatment to flour processed from durum wheat. Leading economic development organizations in the city include the Huron Economic Development Committee, the Huron Joint Port Authority and the Huron Chamber of Commerce.

Transportation in Huron includes two railways: the Norfolk and Southern, and Conrail. State route 6 runs through Huron, East to West. Exit 7 of the Ohio Turnpike is located 7 miles southwest of town. In addition, Griffing Airport is five miles west and Hopkins International Airport, in Cleveland, is 45 miles west of Huron. Six trucking terminals serve Huron, and 15 motor freight companies are franchised in the area.

The City of Huron is governed by a City Council consisting of seven members, who are elected at large for terms of four years. The City Manager, who is appointed by the City Council, administers the day-to-day business of the city. The City Manager oversees a number of agencies, including the Building Inspector's Office, Parks & Recreation, Tax, and Zoning Departments. The Mayor of Huron - elected by fellow councilors - presides at council meetings, which take place on the second and fourth Mondays of each month (starting at 7:30 PM). Municipal services in the area include the Huron Police and Fire Departments. Huron also has a Public Library, located downtown. Huron does not have a hospital within in the city, but utilizes Firelands Regional Medical Center.

The Huron Public Schools consist of a high school, a middle school and an elementary school. A five-member Board of Education is elected to oversee the public schools and meets on the third Tuesday of each month (7:30 PM). The Board of Education has an appointed Superintendent to manage the school system's day-to-day operations. Other public boards in Huron include the Planning Commission, which meets on the third Wednesday of each month (7:30 PM), and the Board of Zoning Appeals, which also meets monthly (every third Monday, 7:30 PM). In addition, to the public schools, Huron is home to a state-chartered Montessori school (for grades three to six) and Saint Peter's School, a Catholic school serving grades kindergarten through eight. Huron and surrounding municipalities also send eleventh and twelfth grade students to the EHOVE (Erie, Huron, Ottawa Vocational Education) Joint Vocational School, located in nearby Milan.

Huron Township

Huron Township is an unincorporated area in which the City of Huron is located. Its 20.72 square miles are home to a population of 10,233 according to the 2000 Census figures, living in 4,282 households. The Township had a 2000 per capita income of \$26,803. It is bordered by Sandusky to the northwest, Perkins Township to the west, Milan Township to the south and Berlin Township to the southeast. Both US Highway 6 (west to east) and State Route 2 (northwest to southeast) run through the Township. South of US Highway 6 is County Highway 10, which also runs west to east and virtually bisects the Township until it connects with Route 2.

There are three elected trustees governing the Township (they meet on the first and third Mondays of the month at 6:30 PM), which is also served by a Clerk and a Zoning Inspector (who is also Chief of the City of Huron Fire Department). Police protection is provided by the Erie County Sheriff's Office and the Township contracts with the City of Huron for its fire protection. The Township has no library and most of children attend school in the City of Huron or at the EHOVE. Firelands College, part of Bowling Green State University, is located in Huron Township, just west of the city.

While the City of Huron is a major industrial and commerce center in Erie County, Huron Township is a center for recreational activity. It is the host community to the Plum Brook Country Club, Sawmill Creek Resort, Thunderbird Hills Golf Courses (North and South) and the Keys Golf Course. Of special interest in Huron Township is the Sheldon Marsh State Nature Preserve, which encompasses 386 acres and is located west of the city on US Route 6. In nearby Berlin Township, is the Old Woman Creek Natural Estuarine Sanctuary and State Nature Preserve (571 acres), located two miles east of Huron on Route 6. Both preserves are open to the public for hiking, photography and bird watching. Old Woman Creek also has as a research facility for coastal wetlands management and receives some funding from the federal Natural Estuarine Reserve Research program. Each is managed by the Division of Natural Areas and Preserves, part of the Ohio Department of Natural Resources. Also located in the Township are the Osborne Recreation Area and the McBride Arboretum, which borders Firelands College. Both are administered by Erie MetroParks, whose offices are located in the Township on Perkins Avenue and provide meeting space for the Firelands Audubon Society and several other groups.

Oxford Township

Located south of Perkins, Oxford Township has 1,096 residents, living in 383 households, according to 2000 Census figures, which also indicated a per capita income of \$19,996. Included in the population are approximately 30 nearby neighbor households, living south of the Plum Brook Station fence line. Oxford Township has direct access to Interstate Routes 80 and 90 (Ohio Turnpike), which run East-West through the northern part of the township. Route 43 runs North-South through the western part of the township. To the North, Route 13 runs East-West and almost parallel to the Ohio Turnpike; to the south, the Northern and Western Railroad also runs through Oxford Township, from Southwest to Northeast.

Oxford Township is both a bedroom and agricultural community. As is true of neighboring townships, it is governed by three Trustees (who meet on the first and third Thursdays of the month, at 7 PM) and is served by a Township Clerk and a Zoning Inspector. Police services are provided by the Erie County Sheriff's Office. The Township has a volunteer fire department and is sometimes assisted by the fire departments of neighboring townships, including Perkins, Milan and Monroeville in Erie County and Groton in Huron County. Oxford Township also takes a regional approach to education. Most of its students attend schools in Perkins Township and others attend schools in Milan and Monroeville. It has no Public Library.

Milan

Located directly south of Huron, Milan is both a township within Erie County and village, situated in both Erie and Huron Counties. Milan is bisected, East-West, by Interstates 80 and 90 (Ohio Turnpike). US Route 250 (Norwalk Road) runs North-South through the western portion of the Township, while County Highway 123 runs Southwest-Northeast and connects with Highway 250. County Highway 13 runs parallel to (and north of) the Interstate, as does the Norfolk and Western Railroad.

The Erie County portion of the Village has a population of 1,025 living in 540 households, according to the 2000 Census figures, with a per capita income of \$23,143. Milan (Village) is governed by a seven member Council, which elects a Mayor (and meets on the second and fourth Tuesdays of the month, at 8 PM). The Village is served by an Administrator and a Clerk and has its own Police, Fire, Light, Street and Water Departments. It shares a school district with neighboring Berlin. Both Edison High School and the EHOVE (regional) vocational school are situated in Milan, which shares with Berlin a five

member Board of Education (four are Milan residents). The Board supervises a Superintendent and a Treasurer (both are Milan residents). In addition, there is a Public Library in Milan Village.

Milan Township

Milan Township has a 2000 Census population of 3,686 living in 1,321 households, and has a per capita income of \$23,457. It runs both south and east of Plum Brook Station and three of its streets are adjacent to two of the facility's gates. The gate at Scheid Road is about 1 mile from US 250 Milan Road. There are no near neighbors on this stretch of Scheid Road, only fields. The nearest neighbor to the Scheid Road gate is Saint John's Lutheran Church, approximately 1 mile away from the gate at the corner of US 250. Within a half-mile of the church are a half-a dozen neighbors including a farm. There are about 20 other nearby neighbor households on Milan road, on the east side of Plum Brook Station.

The other Plum Brook Station gate in Milan is on West Mason Road, about 1.25 miles west of US 250. There are approximately 50 nearby neighbor households in Milan Township, about half of which are on West Mason Road. Other nearby neighbors include the U.S. Army Reserve Center, which is directly next door to the gate as well the North Coast Mall. The mall has two buildings and its tenants include a church (New Covenant Lighthouse Ministry). Also on West Mason Road are a small farm, the EHOVE Career Center and an Erie County Court building. At the corner of Mason and US 250 are a McDonald's, a Comfort Inn, a gas station and a Subway.

Milan Township is governed by three Trustees, who meet on the first and third Wednesdays of the month at 7:30 PM (and, as needed, on Mondays at 8 AM). It is also served by a Township Clerk and a Zoning Inspector. Milan is host to several organizations and companies, ranging from a US Army Reserve facility to the Erie County Landfill, and from the North Coast Mall to the Coupling (Nature) Reserve.

Kelleys Island

Kelleys Island is a 2,800-acre island located off the shoreline of Sandusky, in the western basin of Lake Erie. It is a residential island and a tourist area. According to the 2,000 US Census, there are 367 year round residents on Kelleys Island living in 183 households, along with another 300 to 400 residents during the summer months. The per capita income in 2000 was \$21,944.00

The island's main tourist attractions are boating, fishing, Kelleys Island State Park, Inscription Rock (Indian Carvings), the Glacial Grooves State Memorial (ice formations that turned to rock formations), camping, and bird watching. Access to Kelleys Island is by small plane - to the Kelleys Island Municipal Airport from Sandusky or Port Clinton - or by ferry from Cedar Point or Marblehead, which is across Sandusky Bay, opposite Cedar Point. There are also docking facilities available for private boats.

Kelleys Island is a municipality with an elected Mayor and seven Council members. From May through November, the Council meets on the second Thursday of the month, starting at 8 PM. From December through April, the Council meeting is held on the second Saturday of the month, starting at 10 AM. There is a chief of police on the island and, during the summer months, nine part-time police officers are added. Island health services consist of a clinic that is affiliated with St. Vincent's Hospital in Toledo, Ohio. In addition, there is one public school on the Island, accommodating grades kindergarten through twelve. The school also contains a branch of the Sandusky Public Library.

3.2 Chronology of Plum Brook Station's Community Outreach

Plum Brook Station has been part of the Sandusky and Perkins communities for more than 45 years, providing jobs within the community, working with local schools, and supporting the local economy by using materials from local businesses. Plum Brook Station employment needs have provided an opportunity for training the local work force in state-of-the-art technology and its presence provides a gateway to high technology in the Sandusky area.

Over the years, Plum Brook Station staff has provided the community with information about the facility, and have maintained open lines of communication with the community in a number of ways:

- Plum Brook Station has been a member of the Erie County Chamber of Commerce since 1989.
- Prior to 1973, NASA conducted tours of Plum Brook Station including tours of the Reactor Facility until its closure. Several thousand people participated in these tours. Since reactivation of several of the test facilities, Plum Brook Station staff has conducted occasional tours for the public and smaller groups including tours for area science classes.
- In 1995 and 1999, Plum Brook Station held Open Houses for the general public. The 1995 Open House ran for two weekends, with several thousand people attending. Plum Brook Station opened four test facilities and ran tours of each. In addition, there were ongoing discussions and movies in the engineering building. The 1999 Open House, which saw NASA host 4,300 Ohio residents, is described in the Decommissioning Community Outreach section.
- Through 1996, Plum Brook Station staff held meetings with local city government officials in Sandusky, the Erie County Commissioners and the Erie County Chamber of Commerce, to update them on activities at Plum Brook Station and future plans for the facility.
- NASA Glenn has frequently taken part in the Bowling Green (Firelands) Annual Physics Days, which takes place at the Cedar Point Amusement Park.
- After the Mars Pathfinder landed on Mars, Plum Brook Station provided displays for exhibits at the City Hall in Sandusky.
- Plum Brook Station is a member of the NASA Glenn Research Center's Speakers Bureau, which enables local clubs and organizations - including the YMCA, Boy Scouts, and Rotary Club - to have Plum Brook Station staff speak at meetings on NASA and related topics. Plum Brook Station staff members speak to local organizations about five times a year.
- The local media, including the Sandusky Register and the (Lorain) Morning Journal, have been informed of activities at Plum Brook Station.

Decommissioning Community Outreach

Since the Community Relations Plan (CRP) was finalized in September 1999, NASA has implemented an extensive community outreach program for the Decommissioning Project, consisting of many of the activities referenced in this CRP. To date, specific outreach activities include the following:

Plum Brook Station Open House

On October 30, 1999, NASA Plum Brook Station held an Open House, which was attended by more than 4,300 Ohio residents – the majority of them from Erie County. The Open House featured a series of displays on NASA's plans for Decommissioning. NASA staff and contractors were present at each display to explain information and answer questions. A significant number of people who attended the

Open House visited the displays and spoke with NASA experts, who answered their questions and concerns. A model of the existing Reactor Facility also drew a lot of interest from the attendees.

The Open House also enabled members of the public to tour the unique and active Plum Brook Station facilities, including the Spacecraft Propulsion, Hypersonic Tunnel and Cryogenic Tank facilities, along with the Space Power Facility -- the world's largest space environment test chamber -- able to simulate the vacuum temperatures and solar environment of space. Science experiments for children and the chance to meet astronaut Mike Foreman were other highlights of the Open House. The event was advertised in five Erie County newspapers and through Public Service Announcements (PSA's) aired on radio stations in the Cleveland and Sandusky areas.

Plum Brook Station Media Tour

NASA hosted a Media Tour of Plum Brook Station on October 29, 1999, prior to the Open House. Representatives from a dozen media organizations heard presentations by Plum Brook Station General Manager Bob Kozar, and NASA Glenn External Affairs Director John Hairston, about the activities of, and plan for, PBS -- including decommissioning. Decommissioning Project Manager Tim Polich was present to answer questions on decommissioning. Media representatives toured both the Decommissioning display and the active PBS facilities. Both the Open House and the Decommissioning Plans were the subjects of favorable articles in the Sandusky Register and Cleveland Plain Dealer, and Associated Press coverage of the event was carried in newspapers throughout Ohio.

Community Information Sessions

On November 3, 1999, NASA hosted the first in what has become a series of annual Community Information Sessions (CIS). The first CIS was held at BGSU Firelands, in Huron, as was the second (on October 17, 2000). NASA also held Community Information Sessions at Perkins High School, in Perkins Township, on October 23, 2001, and October 16, 2002. At each CIS, members of the public had an opportunity to view a series of text and visual displays and ask questions of - and express concerns to - NASA personnel and Decommissioning Team members staffing the displays. Since 1999, attendance by members of the public has ranged from 30 to 50 people per session with the highest attendance being in 2002. The 2002 CIS also had the most extensive outreach to community organizations and advertising on local radio and in local newspapers (see below).

Evaluations of the 1999 CIS indicated that while people felt the displays were valuable and enjoyed the opportunity of speaking directly with Decommissioning Team members, they also wanted a brief more formal presentation. To address this comment, as of the 2000 CIS, NASA included a PowerPoint presentation (see below) narrated by NASA Glenn Public Affairs Specialist Sally Harrington and a video on the project that ran continuously for viewers. In general, evaluations of each CIS indicated that the public felt the sessions were a good way to get information out to the public. Participants also took note of NASA's emphasis on safety in each aspect of the Decommissioning Project and the accessibility of NASA staff to answer their questions. People completing the questionnaire were also impressed by the different information vehicles used by NASA - especially the slide presentation and accompanying narration.

With the October 2002 Community Information Session the first since decommissioning began, NASA sought to share news of the CIS with school and community organizations throughout Erie County. In all, NASA reached out to 74 organizations, including Parent Teacher Organization leaders in Perkins

Township and Sandusky as well as community organizations ranging from the Sandusky Area Safety Council to Erie MetroParks to the Berlin Heights Kiwanis Club. NASA provided each organization with flyers about the event and a note of introduction. In addition, NASA sent several of these organizations an announcement about the CIS for use in the organizations' newsletters and on their websites. NASA promotes the Community Information Sessions through paid advertising in five Erie County newspapers and the Sandusky Register's website and via PSA's and paid advertising on area radio stations – as well as on the Decommissioning Project Website, the project's 24-hour, toll-free Information Line and quarterly newsletter.

Fact Sheets

Since June 1999, NASA has produced nine (9) fact sheets dealing with various aspects of NASA's plans for Decommissioning. The fact sheets include:

- The History of Plum Brook Station (June 1999)
- We Want You to Know, an Introduction to Decommissioning (June 1999)
- Transporting Low-Level Radioactive Waste (September 1999)
- The Environmental Assessment for Decommissioning the Reactor Facility (April 2000)
- Decommissioning Success Stories (October 2000)
- Results of NASA's Environmental Assessment (January 2001)
- Transporting Low-Level Radioactive Waste – Revised Edition (October 2001)
- Protecting Public Health and the Environment (October 2002)
- Health and Safety (October 2002)

Copies of each fact sheet have been made available to the public at libraries throughout Erie County, distributed to attendees at NASA events, maintained at the Community Information Bank (on Decommissioning) at the BGSU Firelands Library and they can be accessed on NASA's Website. They are also available to the public upon request.

Community Workgroup

In October 1999, NASA established a Community Workgroup for the Decommissioning Project. The Workgroup serves as a vehicle by which NASA communicates information on Decommissioning while providing Workgroup members and the larger community an opportunity to ask questions and express concerns. The Workgroup consists of 12 to 16 members; residents of Erie County who represent a variety of constituencies including: nearby neighbors of PBS, public safety officials, health and education professionals and members of the area's environmental community. Workgroup members are active in many aspects of community life and are expected to provide project information to their constituents and community members. This includes letting people in the larger community know that they are Workgroup members, encouraging community members' questions and discussions about Decommissioning and urging them to attend and participate in Community Information Sessions, Workgroup meetings and other events.

Workgroup meetings have been held quarterly since November 1999 and may be held more frequently as Decommissioning activity increases. The first six meetings (November 1999 – April 2001) were held at BGSU Firelands. Since then, meetings have been held at the EHOVE Career Center in Milan, Perkins High School and at Saint Stephen's AME Church in Sandusky. NASA is committed to holding future

meetings at locations throughout Erie County. All meetings are open to the public and are advertised in area newspapers and through PSA's on local radio stations.

On April 23, 2002, several Workgroup members – along with a few NASA retirees who once worked at the Reactor Facility were given a tour of the Reactor Facility which included going through the formal access control procedures and required monitoring that is now standard required practice for anyone entering the facility. After receiving a dosimeter – a personal radiation monitoring device – Workgroup members had an opportunity to see the Hot Cell Gallery where pre-decommissioning work had occurred the previous summer, the Reactor containment vessel and associated quadrants and canals, the facility's former Control Room and several other areas. Workgroup members noted that the tour had enhanced their understanding of the Decommissioning Project and their ability to share project information with members of the larger community.

Community Information Bank

In January 2000, NASA established a Community Information Bank (CIB) at the BGSU Firelands Library. The CIB serves as a permanent repository of information on the Decommissioning project. NASA continually updates the information in the CIB, which currently contains:

- Fact sheets
- PSA's on NASA events
- NASA's Decommissioning Plan (submitted to the NRC in December 1999)
- Decommissioning Community Relations Plan (1999) and Addendum (2001)
- NASA's response to NRC comments on the Decommissioning Plan and revisions to the Plan (March 2001)
- Copies of articles on Decommissioning
- Copies of Decommissioning News (NASA's quarterly newsletter)
- Minutes from meetings of NASA's Community Workgroup on Decommissioning
- NASA's Environmental Assessment (January 2001) and other project documents

All information at the CIB is available to the public upon request.

Decommissioning Website

In August 2000, NASA established a Decommissioning Website at www.grc.nasa.gov/www/pbrf. The Website was recommended by many of the people interviewed for this CRP and was also a recommendation of the Community Workgroup to whom NASA sought input and advice on the Community Relations and outreach effort. Some of the information available on the website includes the following:

- Background Information on Plum Brook Station
- Project updates
- Decommissioning Fact Sheets
- Video on Decommissioning
- Decommissioning Plan
- U.S. Nuclear Regulatory Commission Approval of the Decommissioning Plan

- Project documents and reports
- Recent and archived editions of the quarterly Decommissioning Newsletter
- Frequently Asked Questions
- Glossary of Terms
- List of Community Workgroup Members
- Information on Radiation Monitoring and Public Safety
- Display panels used at Community Information Sessions
- Links to Federal and State Agencies

The Website is updated regularly. It was mentioned in NASA press releases announcing both the Telephone Information Line (July 2001) and the NRC's approval of NASA's Decommissioning Plan (April 2002). The Website is also listed in each edition of the quarterly newsletter. As of mid-November 2002, the Website's Home Page had received more than 3,900 visitor hits since its inception – including 2687 hits through the first 10 months of 2002.

Mailing List and Mailings

NASA has developed a mailing list with more than 1,400 names, including local residents, community organizations, churches and county and municipal officials. The list is continually updated and members of the public can be added to the mailing list by attending a community relations event on decommissioning or by calling the telephone information line established for the project (see below).

Decommissioning Video

In September 2000, NASA produced a video, which addresses the history of Plum Brook Station, the reasons for decommissioning the closed Reactor Facility and NASA's plans for Decommissioning. To date, the video has been used at the annual Community Information Session (CIS) and been favorably received. It is available for showing to schools and community groups by contacting Sally Harrington of the Community and Media Relations Office at the NASA Glenn Research Center at 216-433-2037, or at s.harrington@grc.nasa.gov, or by leaving a message on our 24-hour, toll-free Information Line at 1-800-260-3838 and pressing Option 4 to access the Messages for Decommissioning Team mailbox. The video can also be accessed on the Decommissioning Website described above. A new video is scheduled for production in 2003.

PowerPoint Slide Presentation

NASA has also produced a PowerPoint slide presentation on Decommissioning, which was first shown at the October 2000 CIS. The presentation was substantially revised and updated in 2002. A NASA person who is available to answer specific questions narrates this presentation, which is also available to schools and organizations by contacting Sally Harrington or by leaving a message on our 24-hour, toll-free Information Line at 1-800-260-3838 and pressing Option 4 to access the Messages for Decommissioning Team mailbox.

Postcard/Magnets

In February 2001, NASA conducted a mass mailing of a magnet laminated to a postcard providing information on NASA's community outreach efforts in support of the Decommissioning Project and to inform the community about the then newly available Website on the Decommissioning Project. The postcard/magnet is also distributed at other community relations events such as Workgroup meetings, the

annual CIS and when NASA speaks to organizations on decommissioning. The postcard also lists a variety of ways the public can get information on Decommissioning, including the Website, Community Workgroup, Community Information Bank, fact sheets, NASA speakers and presentations, Community Information Sessions (CIS) and Open Houses. The postcards also contain a contact person for additional information: Sally Harrington - by phone at 216 433-2037 and E-mail at s.harrington@grc.nasa.gov. The postcard/magnets will be updated in 2003 to include NASA's Telephone Information Line number at 1-800-260-3838 and distributed in several ways.

Project Update for Nearby Neighbors

In June 2001, NASA prepared and distributed a Project Update to more than 200 households living within 1.5 miles of the Plum Brook station fence line. Similar to a fact sheet, the Project Update provided information on pre-decommissioning activities that NASA was preparing to conduct, under the terms of its former license with the NRC.

Decommissioning Telephone Information Line

In July 2001, NASA implemented a 24-hour, toll-free Decommissioning Information Line. To make the community aware of its existence, NASA issued a press release. By dialing 1-800-260-3838, callers can access information ranging from a project update – the message is updated regularly – and a project overview (which provides historical background of the Reactor Facility) to mailboxes enabling callers to request fact sheets or inclusion on NASA's mailing list or leave questions, comments and messages for the Decommissioning Team. NASA checks the line daily and is committed to returning all calls as quickly as possible. During the first 10 months of 2002, there had been 202 calls to the Information Line.

Quarterly Newsletter

In October 2001, NASA published the first edition of Decommissioning News, the project's quarterly newsletter. NASA created this newsletter to keep community members informed about our progress of decommissioning, and to talk about topics that are of interest to the community. Each edition provides an update on NASA's progress on the project and what the next steps will be, along with articles addressing important aspects of Decommissioning. In addition, NASA includes a profile of a Community Workgroup member in each newsletter edition. The newsletter is sent to each person on the mailing list and is also posted on the Decommissioning Website. Copies can also be obtained at the Community Information Bank or by calling the Information Line (see above).

Neighbors Reception

Those living closest to the Plum Brook Station Fenceline and the Reactor Facility have been identified as a specific group of stakeholders who may have the most interest in Decommissioning. To attempt to reach this particular group, NASA held a Neighbors Reception on April 24, 2002 at the Perkins Public Schools administration building. NASA sent invitations to 300 households living within 1.5 miles of the Reactor Facility fence line.

After a series of welcoming remarks from Perkins School Superintendent Larry Pitts and NASA Decommissioning Project Manager Tim Polich, NASA Senior Project Engineer Keith Peacock gave a formal update and presentation on decommissioning. Then, neighbors were invited to view the Decommissioning video, tour displays and talk with both Decommissioning Team members staffing the displays - and Community Workgroup members who had toured the Reactor Facility the evening before.

Evaluations completed by attendees indicated that attending the Neighbors Reception enhanced their understanding of the Decommissioning Project, and their confidence in NASA.

Newspaper Supplement

The May 7, 2002 editions of the Sandusky Register and the Norwalk Reflector included a four-page supplement created by NASA. The supplement provided an introduction to the Decommissioning Project for 25,000 Register subscribers and 9,000 Reflector subscribers. NASA decided to create the supplement in an effort to provide a comprehensive summary of Decommissioning given the recent approval of its Decommissioning Plan by the NRC. The supplement included a letter to the community from Decommissioning Project Manager Tim Polich; an introduction to key members of the Decommissioning Team; news of the NRC's approval of NASA's Decommissioning Plan; and articles on the Community Workgroup and the safeguards NASA is taking to protect the community and workforce during Decommissioning. The supplement is available to the public by calling NASA's Information Line at 1-800-260-3838 and pressing Option 4 to leave a message for the Decommissioning Team or by visiting the Sandusky Register website at www.sanduskyregister.com and clicking on the Special Features section on the lower left side of the page.

Reactor Facility Media Tour

On June 26, 2002, three months after the Nuclear Regulatory Commission approved NASA's Decommissioning Plan, NASA hosted a Reactor Facility Tour for Ohio media outlets. Representatives from eight media outlets – encompassing five daily newspapers and six radio stations attended the briefing and tour which included introductory remarks from NASA staff and a brief, project overview. The tour covered many of the areas that the Community Workgroup had seen.

The Reactor Facility Media Tour resulted in the publication of 11 articles and one letter to the editor (all favorable) in 11 Ohio newspapers – with five of the papers carrying Associated Press accounts of the tour. The Decommissioning Project also received national attention, when USA carried a mention of the project in its June 28 edition. The Reactor Tour also enjoyed substantial radio coverage, with three Sandusky stations – all owned by Clear Channel Communications – airing reports and sharing the stories with other Clear Channel stations throughout the state. In addition, radio station WCPN-FM, Cleveland's National Public Radio outlet, conducted a live remote report during the tour. On October 7 and 8, WCPN ran a two-part follow-up report that focused on interviews and retirees who formerly worked at the Reactor Facility. The first part of this series also included narration from reporter Karen Schaefer and some comments from NASA's Keith Peacock that were recorded during the June Reactor Facility Tour.

Speakers Upon Request

Upon request, NASA has provided speakers to civic, community and school organizations on Decommissioning. In the past three years, NASA representatives have spoken to a number of Erie County Organizations including the Senior Men's Fellowship Group (Sandusky), the Berlin Heights Kiwanis Club, the Firelands Red Cross (Sandusky), the Huron Rotary Club, the Commons of Providence (Sandusky), the Knights of Columbus from Saint Peter's Church (Huron) and the Erie County Local Emergency Planning Committee.

Press Releases

To date, NASA has issued the following news releases on the Decommissioning Project (noting the month in which they were issued):

NRC Approval of Decommissioning Plan (April 2002)
Decommissioning Information Line (July 2001)
Submittal of Decommissioning Plan to the NRC (December 1999)
Plum Brook Station Open House (October 1999)
Decommissioning Community Information Session (October 1999)

Plum Brook Station Open House (October 1999)
Decommissioning Community Information Session (October 1999)
Submittal of Decommissioning Plan to the NRC (December 1999)
Decommissioning Information Line (July 2001)
NRC Approval of Decommissioning Plan (April 2002)

Media Advisories/Notes to Editors

To date, NASA has issued a Media Advisory and/or a Note to Editors on the following Decommissioning Project topics (noting the month in which they were issued):

Community Information Session (October 2002)
Community Workgroup Meeting (July 2002)
Media Reactor Tour (June 2002)
Community Workgroup Meeting (January 2002)
Community Information Session (October 2001)
Community Workgroup Meeting (July 2001)
Community Information Session (October 2000)

Public Service Announcements

To date, NASA has issued the following Public Service Announcement on the Decommissioning Project (noting the month in which they were issued):

Community Information Session (October 2002)
Community Workgroup Meeting (July 2002)
Community Workgroup Meeting (January 2002)
Community Information Session (October 2001)
Community Workgroup Meeting, (October 2001)
Decommissioning Information Line (July 2001)
Community Workgroup Meeting (July 2001)
Community Workgroup Meeting (April 2001)
Community Workgroup Meeting (January 2001)
Community Workgroup Meeting (September 2000)
Community Information Session (September 2000)
Community Workgroup Meeting (May 2000)
Community Workgroup Meeting (December 1999)
Community Information Session (October 1999)

Plum Brook Station Open House (October 1999)

Advertisements

Recognizing that public notices and notice of events in the calendar sections of newspapers were not a sufficient means of keeping the community informed about decommissioning, NASA began a program of advertising for community relations events in October 1999. Since that time, NASA has purchased print advertising in four daily newspapers (the Sandusky Register, Norwalk Reflector, Bellevue Gazette and Morning Journal of Lorain) and one weekly newspaper (Vermilion Photojournal) in and near Erie County. NASA advertised the Open House and Community Information Session (CIS) in 1999 – has advertised each CIS since. NASA has also advertised each Community Workgroup meeting since February 2000. In addition, NASA purchased ads in the aforementioned papers to announce Public Comment Periods regarding the publishing of two documents relating to the impact of decommissioning on the environment. NASA advertised its Environmental Assessment in January 2001 and its Finding of No Significant Impact (FONSI) in April 2001.

In an effort to further reach out to the Erie County Community, NASA also purchased radio advertising in support of the CIS in both October 2001 and 2002. In 2001, NASA purchased a total of (11) 30-second spots on three Sandusky radio stations – WLEC-AM, WMJK-FM and WCPZ-FM – all owned by Clear Channel Communications. In 2002, NASA purchased a total of 27 spots on these three stations running them adjacent to news broadcasts. NASA bought all 60-second spots in 2002, using the extra time to emphasize that Plum Brook Station remains an active NASA test facility, with only its Reactor Facility being decommissioned. The additional information was deemed necessary after focus group research, which showed that some members of the public believed that all of Plum Brook Station was being decommissioned.

Many attendees of the 2001 and 2002 Community Information Sessions – especially in 2002 – said they read the CIS ads on the radio and regarded this advertising as most effective in announcing the Decommissioning Project event.

4.0 SUMMARY OF PLUM BROOK STATION EMPLOYEES, COMMUNITY INTERVIEWS AND FOCUS GROUPS

This section includes the findings from a series of interviews and groups with NASA employees (May 1999); retirees and former employees (June 1999); Community interviews with officials and leaders of the community-at-large (August and September 1999) and with African American community leaders (March 2001); and four focus groups with randomly selected residents from surrounding towns and townships (August 2002). A total of seventy-six (76) people have been interviewed to date, singularly or in small groups.

Because these interviews and focus groups were conducted at different points in time the findings are reported separately below.

4.1 Employee Interviews

Five interviews were conducted with employees of NASA Glenn Research Center and Plum Brook Station (PBS) on May 27, 1999. (The list of interview questions and those interviewed is included in Appendix A.). The purpose of these interviews was to provide insight into what the community wants to know about the decommissioning of the Reactor Facility, how the community may want to receive this information, and any concerns or questions the interviewees perceive the community as having. Employees who were residents around Plum Brook Station were also asked about their communities, in terms of possible stakeholders and overall community organization and structure. Two of the people interviewed worked at Plum Brook Station until it initially closed in 1974, then worked at Glenn Research Center for a number of years and are now back at Plum Brook Station which is again an active test and research facility. The other three individuals interviewed all worked at Plum Brook Station until it originally closed, and since then, have worked at Glenn Research Center in various departments. All interviewees lived in Erie County (four still do) before Plum Brook Station closed in 1974. They all had a pulse on what the community may have thought when the Reactor Facility was first built. Since four of those interviewed still live in Erie County, they continue to have a good sense of the possible information needs and perceptions of the local public.

Awareness and Perceptions

Interviewees were asked about community perceptions and awareness of Plum Brook Station in general, and the Reactor Facility in particular. Historically, interviewees felt Plum Brook Station was perceived as a very technical institution and that the public "did not really understand what was going on there." The community accepted the lack of information because it was "impressed" by the technical nature of the work and the prestige of the facility. Those interviewed felt the community never had, or expressed any fear about Plum Brook Station in general or, specifically, the Reactor Facility. Four out of the five people interviewed said they thought the community perceived NASA Glenn Research Center and Plum Brook Station as having an air of "secrecy" but felt this did not trouble most people or seem to impact trust. Overall, the interviewees felt that Plum Brook Station and NASA were seen favorably by the community.

All those interviewed felt that, currently, there are few concerns about Plum Brook Station and that the community knows little about them. Concerns that were mentioned include the occasional noise from the Hypersonic Tunnel Facility. However, the interviewee who suggested this as a concern did not know if

this was a current issue, or how much of a concern it actually had been in the past. When asked about any historic concerns, a fluorine gas leak that emitted "green" gas into the air in the 1960's was mentioned. Again, it was not clear how much of a concern this had been, and one person only mentioned it. The employee thought there might have been newspaper coverage about the incident.

One interviewee mentioned Plum Brook Station's closing in 1973, which was not happily received because of resulting job losses in the community. It was also clear that all of those interviewed had feelings about the facility closing and, in particular, how quickly it occurred without advance notice. Finally, there are stories about the beginnings of the Plum Brook Ordnance Works, (prior to NASA's ownership of Plum Brook Station) when the creek would "run red" from nitrous acid. Interviewees also mentioned the concerns of the farming community, when the federal government originally acquired what was considered "prime farmland" for the Ordnance Works.

Interviewees were asked how aware members of the general public were likely to be about the former Reactor Facility. Most interviewees felt that there was probably a very low degree of awareness and that many people may be surprised to learn that the Reactor Facility ever existed - or is still there. The interviewees felt that in the past, the community was likely to have been more aware of the Reactor Facility, because it was part of the Plum Brook Station tours. Although all interviewees still felt the public perceives Plum Brook Station as a positive asset to the community, they noted that the general public knows very little about Plum Brook Station. In particular, interviewees felt most of the public who have moved into the area over the last number of years would likely be unaware that a Reactor Facility exists. Two of the interviewees mentioned their feeling that the decommissioning process might be a concern to the community until they received more information. One interviewee mentioned being asked questions about the decommissioning process during his talks in local schools and organizations and that there were no noteworthy questions or concerns voiced.

Participants in community focus groups expressed sentiments similar to those anticipated by NASA PBS employees regarding knowledge and perceptions of NASA PBS and the Reactor Facility. These are discussed in more detail below.

Stakeholders

When asked with whom NASA should communicate, several interviewees pointed out that Erie County is made up of a few different communities. Reference was made to the newer "bedroom" communities and the older farming community. It was suggested by one interviewee that contacting community leaders will be essential, to determine who are the "touchstones" of each community. Also, three out of the five interviewees stated that area residents are very civic minded and tend to involve themselves in local issues. One interviewee cited the example of the community recently coming together to create parks in the area. Finally, it was noted that business owners and, in particular, Cedar Point, should be made aware of the Decommissioning.

Information the Community Wants to Know and Sources of Information

Information that interviewees felt the community would want to know about decommissioning predominately concerned health and safety questions, and an understanding of the decommissioning process. Interviewees reinforced that transportation related issues would likely be a major concern. The list of perceived concerns, questions and information needs mentioned by interviewees includes:

- Letting people know that the reactor is not operable.
- That residual radiation levels are significantly less than when the reactor was first closed in 1973.
- Emphasizing NASA's overall safety record, which is the highest of any industry.
- What is radiation?
- An understanding of background radiation and that we are all exposed to radiation all the time.
- What will be transported, when, how, potential problems, etc.?
- What will be left behind after cleanup?

Three out of the five people interviewed felt it was imperative to communicate with the community before the Decommissioning Plan is in place. They felt that opening the channels of communication with the public would allow for questions and concerns to be answered in a more positive environment. They also felt that proactively communicating with community members would alleviate potential problems in the future. One interviewee stated that "there are things that might scare people if they aren't educated about them" and "they may want to know what is happening behind the fence". Several interviewees stressed that because there are many new people to the area who probably do not know about the Reactor Facility, it is important to communicate with them. Most interviewees did not think that the public would be aware of decommissioning, even though there had been some newspaper coverage of the issue in 1998.

Channels of Communication

Three out of the five people interviewed felt that public meetings or Community/Public Information Sessions would be good communication tools. In addition, two out of the five people interviewed stated that public tours of Plum Brook Station had been well liked and attended by the community in the past. Interviewees felt holding a tour would be an excellent means of communication and allow the public to become familiar with NASA and the facility.

The employee interviews provided information on communication channels unique to the Erie County area. One interviewee noted that there are two major nature reserves in the area (Old Woman Creek and Sheldon Marsh State Nature Preserve), which attract a large number of visits from both the local public and tourists each year. Also, one interviewee mentioned that local school and club athletics events are very well attended. These vehicles may provide additional ways to reach the public.

Additional channels of communication mentioned by interviewees include:

- Cable TV
- Local news stations
- Presentations to local organizations and clubs
- Presentations at neighborhood association meetings
- Direct outreach to the NASA Speakers Bureau
- Presentations to Erie County business groups
- Informing the County Commissioners

Overall, the employee interviews reinforced the need for NASA Glenn Research Center and Plum Brook Station to be proactive and take the lead in opening the channels of communication with the public. Employees perceive that the public knows little about Plum Brook Station and the Reactor Facility. In

addition, most of the interviewees felt it crucial to involve and educate the community before questions and concerns arise.

4.2 Retiree/Former Employee Interviews

Four interviews with retiree/former employees of Plum Brook Station were conducted on June 23, 1999. In addition, one former contract employee was interviewed. The purpose of these interviews was the same as those conducted with current employees. In addition, interviewees were asked about historic and current community perceptions of Plum Brook Station and, in particular, the Reactor Facility.

All five interviewees are longtime residents of the area, living in Huron or Sandusky during their employment at either Plum Brook Station, NASA Glenn or (in three out of four cases) at both facilities. One individual resides in Perkins Township and all reside in the area today. One interviewee lives on a bordering road to the Reactor Facility. Four out of the five worked in the Reactor Facility and were actively involved in its operations, shutdown and subsequent monitoring.

Awareness and Perceptions

As mentioned by existing employees, all of the retirees interviewed felt that in general, NASA Plum Brook Station is positively perceived by the surrounding communities and considered a "good neighbor." Like current employees, most felt that there were few historic or current concerns about Plum Brook Station. All of those interviewed felt that currently, the majority of the public would not be aware of the former Reactor Facility and would likely be surprised to hear of its presence. They also wondered whether even longtime area residents would be aware that the closed facility still existed.

One of the retirees mentioned that the community thinks of the work at Plum Brook Station as being "secretive," but did not seem to think this had a negative connotation. The interviewees did not mention any historic or current community concerns about Plum Brook Station, although they did note concerns by Perkins Township officials and farmers about making more of the land owned by NASA Plum Brook Station available (or returning land to its original owners in the case of the farmers). One interviewee recalled that, when the reactor was operating, there had been some mention by local farmers that the facility contributed to the area's drought.

Retiree/former employee's opinions of how NASA PBS is perceived as a "neighbor" were fairly well substantiated in the community focus groups conducted in August 2002 and discussed in detail below.

Stakeholders

The retiree/former employees interviewed reinforced the primary list of stakeholders/audience groups mentioned by current employees. They did however; provide additional names of community leaders and officials that should be kept informed (See Section 4.4).

Information Needs and Sources

The retirees were given one of the fact sheets - on the Reactor Facility and the History of Plum Brook Station - and were asked to read and comment on it. All five felt that the information contained in the fact sheet was accurate and informative. They felt the fact sheets should be distributed to public officials, members of the community, media representatives and NASA employees. All the interviewees felt confident that NASA employees were a credible source of information and that the general public shared

this belief. After reading the fact sheets, they suggested some follow-up questions that might be raised by the public, including:

- Where is the radioactive material being transported to for disposal?
- How will the materials be transported? What routes?
- Who decides which alternative will be used for decommissioning?
- Who is overseeing the operation?
- What will remain on the site (after decommissioning)?
- How will the land be used after decommissioning?

These questions were very similar to those expressed by current employees.

Channels of Communication

The retirees/former employees that were interviewed all agreed that the local newspaper, specifically the Sandusky Register and, possibly, the (Lorain) Morning Journal would be the best place to provide information to the public. Several also suggested local radio stations [WLEC-AM (Sandusky), WCPZ-FM (Clyde), WMTX-FM (Sandusky), WKFM-FM (Huron), WGGN-FM (Castalia), WLKR-FM and WVAC-AM (Norwalk)]. Three out of the five-mentioned local radio station WLEC and call-in shows as good channels for reaching a wider audience. One retiree suggested providing the fact sheets to reporters, but was skeptical about whether the information would be accurately relayed.

A number of civic and social organizations were also mentioned as avenues for presenting information to the public. Suggested groups consisted of the Rotary Club, Kiwanis Club, church groups, and business associations including the Greater Erie County Marketing Group, Erie County Chamber of Commerce, and Huron Chamber of Commerce.

When asked where material such as fact sheets could be placed for access to the public, all five mentioned libraries and city/town offices. Two thought that the nature reserves would be a good repository; however, they were not sure how many local citizens visit the reserves.

Having an information display at the local fairs was suggested, but three out of the five felt that people would not likely be interested in the information at such a venue. Hosting a tour or Open House at Plum Brook Station, with exhibits and a short presentation on the Decommissioning Plan, was almost universally suggested. Based on the success of tours in the past, four interviewees felt that this would be well received and attended. One of those interviewed felt that a public meeting or informational gathering should be held in a central location - rather than at Plum Brook Station - and mentioned possible locations, including the State Theatre in downtown Sandusky and the BGSU Firelands College auditorium. Retirees also stressed the importance of keeping them informed, as many are longstanding residents of the area. One retiree noted that he and many of his peers meet on the first Tuesday of every month for breakfast at the Perkins Family Restaurant (a.k.a. the Perkins Pancake House) and suggested this meeting as a good vehicle for reaching NASA retirees.

4.3 Community Interviews

Community Leaders

Interviews with local community officials and leaders were held on June 24, August 4-6, August 18, and September 10, 1999. Individuals were selected based on the recommendations of current and former Plum Brook Station employees, and community leader interviews. A total of twenty-nine interviews were conducted. A complete list of interviewees is included in Appendix A.

Awareness and Perceptions

The majority of community members interviewed were aware of NASA and Plum Brook Station. In fact, most could cite various test facilities and programs that existed and nearly all had visited Plum Brook Station at some point in time. Only one person interviewed was not familiar with Plum Brook Station. People's awareness of Plum Brook Station was primarily from having friends or relatives who worked there at some point. Some of those interviewed see NASA as an active member of the business community, one that has provided many jobs. Others felt that NASA had a far greater impact on Perkins Township and the surrounding area before the facility faced shutdown in the 1970's. One Perkins resident went on to say that the Township has "never really recovered" from the shutdown, adding "at one time, we had super-educated NASA people as our neighbors, living in our community."

Some of those interviewed had a more active relationship with Plum Brook Station. For example, The Erie County Chamber of Commerce had worked with NASA on many occasions to conduct tours, hold meetings and provide photographs for Chamber publications. Several interviewees mentioned taking tours of the facility. A few interviewees were involved with Plum Brook Station because of its unique natural resources. However, their contact was more through resident agency U.S. Department of Agriculture Staff then through NASA. For example, one interviewee noted she conducts bird watches twice a year, another interviewee mentioned taking students to Plum Brook and a third actually hosts small groups for nature tours of the habitat at Plum Brook Station (in cooperation with NASA and Erie Metro Parks). Other interviewees have obtained their information about NASA and Plum Brook Station from other NASA or contract employees. Three mentioned hearing talks by Plum Brook Station employees about the activities at Plum Brook Station and in some instances, information about decommissioning of the Reactor Facility.

All but one of those interviewed were aware of the history of the Reactor Facility at Plum Brook Station, but felt that a large majority of the public is not currently aware. Those interviewed felt that while the majority of the public is aware that NASA is part of the community and that testing is done at Plum Brook Station, most likely have an "out of sight, out of mind" attitude. All those interviewed, with one exception, had toured the NASA facility at one time or another, and always had confidence in its safety. Eight community interviewees felt similar to the former employee/retirees, that NASA Plum Brook Station is considered a "good neighbor." In spite of this overall positive perception, five interviewees referred to NASA as either "shrouded in mystery" or "behind the fence." One interviewee, who has only lived in the area for ten years, said he did not know that much about Plum Brook Station or what NASA did there. He too referred to the "shroud of secrecy" around the facility. He mentioned being asked about possible bunkers or chemicals at the facility in his professional capacity, but felt he did not have the information to respond. One interviewee mentioned that there was a lot of security and restricted areas, but she wasn't sure why.

Most of those interviewed were aware of NASA's plan to decommission the Reactor Facility. Several expressed questions regarding the transportation of radioactive material. None were personally fearful of

radiation and its effects, but a few interviewees were concerned about how others in the community might react.

At the conclusion of one interview, the interviewee brought in two female employees/office workers of their organization, to provide a "snapshot" of the general public. Both knew about Plum Brook Station, but the newer of the two residents did not know what NASA did there. One of them knew, from a tour, that a Reactor Facility had been located at Plum Brook Station but was unaware that it still existed (even though it is not operational). The other woman was totally unaware that such a facility had ever been at Plum Brook Station. When asked to read the fact sheet on decommissioning, the latter had many more questions.

When asked about any possible issues concerning Plum Brook Station in general, no one expressed any major or immediate concerns. Some mentioned possible historic concerns, such as the control of the deer population and the acquisition of farmland by the government. One also mentioned a recent proposal from a Native American community to use some of the land for a manufacturing facility to produce tobacco products.

As mentioned earlier, eleven of the interviewees were extremely knowledgeable about Plum Brook Station. Knowledge ranged from specific testing programs at Plum Brook Station, to the vast environmental monitoring system Plum Brook Station has in place, as well as the wildlife and botanical studies undertaken on the site. In fact, eleven community members interviewed in August 1999 said they were aware of a test conducted the previous month, on behalf of the European Space Agency (ESA). In the latter test, conducted at Plum Brook's large Space Power Facility, Plum Brook staff tested the nose cone (a.k.a. the payload fairing) from the prototype of the ESA's Ariane 5 rocket, part of the joint United States-European effort to build an International Space Station. The object of the successful test was to ensure that the cone/fairing would jettison from the rocket.

The successful test received positive media attention in the Sandusky Register and the (Lorain) Morning Journal. However, as reinforced by interviewees, there is not much media coverage of NASA PBS, which does leave some information void. Although PBS continues as an active and vital NASA test facility - working on projects for NASA, the ESA and the International Space Station - as well as some private sector customers, since the Open House held in October 1999 the facility's (non-Decommissioning) activities have not generated media coverage. An exception took place in December 2001, when Plum Brook conducted a test separation of the nose cone for the Boeing Delta 4 rocket. The article noted the successful test and also the large size of the component. When the latter was moved out of Plum Brook Station in late December, some members of the public remarked that the process had slowed traffic on U.S. 250 and some wondered if the test had anything to do with Decommissioning.

Most community leaders interviewed in August 1999 had knowledge of Plum Brook Station as the host to an outstanding natural habitat. One interviewee referred to it as a "local gem" from the world's largest vacuum chamber to its unique habitat and green space. Another noted that "There are very few places you can go to in Ohio after a big rain where the water runs clear. It's unspoiled habitat...just a pristine area." These interviewees felt the land should be preserved as a unique ecological resource and hoped NASA would allow the land to remain in its natural state, following decommissioning. They added that NASA should educate the community about the benefits of the natural resource, believing, as one

interviewee stated, “the best and highest use of the (Plum Brook Station) land is to keep it as it is...what an opportunity, if you can keep the predator and wildlife population.”

Similar sentiments expressed by other interviewees include: “I would be happy to take the land and do nothing with it,” while another observed that Plum Brook Station “sits on 6,000 acres of the finest lake plain landscape,” which includes, near the Reactor Facility, “the finest wetland woods in Ohio.” The latter, an environmental expert, believes otherwise competing interests - the environment, commercial development (light industrial/office) and NASA - could all flourish at Plum Brook Station. Another interviewee felt that either NASA should undertake major new projects or open up the land for development, while another interviewee noted that NASA has a responsibility to manage the natural resources at Plum Brook Station more effectively. While he understood that this was not part of NASA’s formal mission, he felt resources should be devoted to this aspect. Although all of those interviewed understand that decommissioning is not focused on land reuse, the issue was the most discussed concern aside from transportation related issues.

Four interviewees noted past and present tensions between Perkins Township and Sandusky, resulting from a failed effort by the City to annex the Township, and two referred to Perkins Avenue, which separates Perkins from Sandusky, as the “Berlin Wall.” Given this sensitivity, and the fact that most of Plum Brook Station is located within Perkins Township, it was suggested that the Township receive at least as much attention from NASA during the decommissioning process as the City of Sandusky. Another interviewee pointed out that U.S. 250 would not be a good route for the transportation of waste from decommissioning as the road, from Cedar Point to the north, through Perkins Township to the south, is heavily traveled and continues to undergo additional commercial development. At the time of those interviewees, the Sandusky Register reported that Erie County planning officials are promoting development opportunities on Ohio Route 2 as a means of easing what could mean more congestion on U.S. 250.

In addition to transportation being a concern expressed by many of those interviewed, during the same time period as the interviews, transportation issues in the area received considerable attention in the print media. In nearby Huron County, there had been several instances of trains from the CSX (Railroad, formerly Conrail) Transportation blocking grade crossings. This issue presented a potential concern to the Decommissioning Project, as NASA was then uncertain about the shipping plans for low-level radioactive waste from the project. Since 1999, the railroad and state and local governments have embarked on a program to discourage grade crossing blockages and to build a series of overpasses and underpasses at crossing locations. Initially, NASA waste transportation plans indicated that trucks carrying waste from decommissioning would likely use the Ohio Turnpike and therefore not travel near any grade crossings in either Erie or Huron County. In the one shipment of waste from pre-decommissioning, one truck exited NASA via the Scheid Road gate onto Route 250, and then proceeded to the Ohio Turnpike on route to the Alaron waste reprocessing facility in Wampum, PA. NASA continues to monitor issues involving truck and rail transportation and will continue to coordinate with local public safety officials on waste shipments from Plum Brook Station.

Stakeholders

Those interviewed reiterated the need for NASA to communicate with all surrounding communities, with the possible addition of Milan, Vermilion, and even Cleveland. Given the large and diverse group of officials involved with township, city and county jurisdictions, it was suggested that a wide variety of

public officials - Mayors, County Commissioners, Trustees of Townships, County Boards of Health, Emergency Management Departments, Police and Fire Departments, the County Agricultural Extension Office, local business organizations (e.g. Chambers of Commerce and local Economic Development Offices) be kept informed throughout the Decommissioning process. They also felt that police and firefighters should be integral to the planning during the transportation of materials, to ensure the safety of the process and increase public confidence. One interviewee expressed interest in personally reviewing the Decommissioning Plan before it was finalized. He also felt it would be useful to have the NASA Plum Brook Station fire brigade train with area responders.

Other stakeholders were identified as environmentally-oriented organizations, such as the Erie County Department of the Environment and Sanitary Engineer, Erie Metro Parks (which manages a variety of green space areas throughout the county), the Ohio Department of Natural Resources, the Firelands Audubon Society, and the (Erie County) Community Action Commission - which administers a considerable number of health and welfare programs, including a recycling program that involves Perkins schools and members of the business and educational communities.

Information Needs and Sources

The community leaders interviewed voiced some of the same anticipated community concerns as the retirees and current employees. Issues concerning the transportation of the materials from Plum Brook Station and land use after the decommissioning were seen as the most important. When asked whom the community would consider as good sources of information, interviewees said NASA and Plum Brook Station staff was considered credible sources of information. One local official recalled a Plum Brook Station employee being well received while presenting information on decommissioning at a Church Fellowship meeting. He felt that more briefings by local employees would also be well received. It was also suggested that NASA utilize school districts and local governmental offices as intermediaries. Only one interviewee felt NASA employees were not credible sources of information, saying, "they do not know the big picture." It was mentioned that there is a "healthy amount of cynicism" in the area regarding government agencies and local officials, but NASA is well respected in the community.

There was some divergence of opinion regarding the credibility of various branches of government. While, as mentioned above, nobody interviewed had negative feelings toward NASA, there were concerns about the sense of secrecy at Plum Brook Station. One interviewee felt that the Nuclear Regulatory Commission was to blame for forcing the decommissioning process on NASA, believing it to be "an unfunded mandate." Indeed, several interviewees felt there was no need to decommission, believing that the Reactor Facility threatened no one and the process to be waste of millions of dollars. Several people mentioned possible discomfort with the U.S. Army Corps of Engineers (USACE), due to poor community perceptions of their work on shoreline issues. They felt that stressing the USACE's role in the decommissioning might not be effective, due to their low credibility within the community.

Some of those interviewed expressed concern and somewhat lack trust in County government, citing a disagreement between NASA and Erie County over groundwater contamination in 1992. Two blamed NASA for the contamination - the groundwater has been monitored periodically without an official finding of the cause - two others believe the County Landfill is the problem. Another person said that, although there is naturally occurring benzene in the groundwater, others in the area blame the limestone quarry ("every time they blast, we smell the benzene"). In spite of the mixed impression of government

officials, nearly all interviewees felt that local and county officials alike should be kept informed of the decommissioning process.

Three of the local officials interviewed stressed the importance of being open and honest with the public. They suggested messages such as:

- The importance of Plum Brook Station to the space program and the importance of NASA as part of the community;
- The safety record of Plum Brook Station; and
- Decommissioning "success stories" for comparison.

Several of those interviewed also stressed the importance of NASA as both a unique test facility and unique natural resource. In fact, a few people interviewed in August mentioned recent testing at Plum Brook Station by another country (e.g. the European Space Agency) because Plum Brook Station was the only place in the world with the testing capability.

All the interviewees were given copies of the fact sheets to read, and then were asked for their reactions to the material. Specifically, interviewees were asked the following: if the information was useful, what other questions or information needs did reading the material raise; and would these fact sheets (and other similar ones) be good vehicles for communicating with area residents.

All of those interviewed felt the fact sheets were informative and worthwhile. They also felt the material was appropriate for general distribution. A few interviewees expressed doubts that a fact sheet produced by any one organization could be taken "as Gospel." Some of the questions raised by reading the fact sheets included:

- Who will decide which alternative is selected?
- Will everything be taken off-site? What will be left behind?
- What are the proposed transportation routes?
- How will you handle traffic from tourists?
- Will NASA avoid roads that have a lot of traffic?
- Will waste be transported at night?
- Will roads be closed down to other traffic?
- What (radiation) was there and at what levels?
- What radiation exists now?
- Is there a chance of leakage?
- If you're going to take apart equipment and buildings, could "stuff" get released into the air?
- Will the public get to see the (decommissioning) plan?
- What is NASA doing in terms of monitoring and follow-up?
- Will NASA have a 24-hour emergency response capability during decommissioning and transportation? If so, who will monitor it? Someone local or out of state?
- Who will verify NASA's monitoring?
- How was it transported and cleaned up in the 70's shutdown?
- What will be involved in Decommissioning?
- Will it be safe?
- Will there be increased incidences of leukemia?

- What will be left behind? Dirt? Concrete? Plastic?
- How will the project affect property values?
- What will be done with the land after Decommissioning?

As described later in this section, many of the questions raised by community leaders were also expressed by participants in the more recent focus groups.

Channels of Communication

Having talks or briefings by NASA officials, placing materials in local libraries in the surrounding communities, providing information to local newspapers, and having a tour or "Open House" at Plum Brook Station were, again, the "top of the mind" responses, regarding channels of communication. The Sandusky Register was mentioned by each person interviewed, with three suggesting direct contact with the paper's managing editor, Todd Franko. Although there was universal agreement that the Register would be an appropriate channel, four interviewees cited what they felt was a lack of skill and/or experience on the part of the paper's reporters. While a number of interviewees mentioned concerns over the quality of the material in the Register, there was even more criticism for the (Lorain) Morning Journal, for what interviewees said was "inaccurate reporting and sensationalizing of the news." Some were concerned that the Morning Journal would try to distort the facts about decommissioning, though most people felt that NASA had sufficient credibility to withstand media scrutiny.

Most people interviewed considered radio a secondary channel of information, as many local stations do not even cover the news. However, almost half mentioned WLEC-AM (Sandusky) as the best source of radio coverage. The station airs local news - generally five to six minutes per hour - for 20 of its 24 on-air hours. . It also airs special interview segments regarding issues of concern to Erie County listeners. WLEC News Director Steve Shoffner interviewed NASA Glenn Public Affairs Specialist Sally Harrington in October 2000 and both NASA Decommissioning Project Manager Tim Polich and Senior Project Engineer Keith Peecook in September 2002. The latter interview aired several times on WLEC - as well as on the two other local stations WMJK-FM and WCPZ-FM both owned by Clear Channel Communications.

Other local radio coverage mentioned included WLKR (both AM and FM) in Norwalk, which air local news for three minutes each hour. WLKR-AM also broadcasts a local public interest show, "Sound Off", for an hour each weekday. NASA representatives Tim Polich and Keith Peecook were interviewed live on the show in August 2002 and the interview segment was subsequently aired several times.

A number of interviewees noted that various local organizations publish newsletters that may have space for information on decommissioning. Specific organizations mentioned include: The Erie County and Huron Chambers of Commerce that have newsletters with a large circulation (*over 500 and 150, respectively*) that NASA could utilize. Also mentioned were: Branches, published quarterly by the Erie County Environment Department and distributed to 11,000 area sewer and water customers, and the County Line, published every other month by the Erie County Commissioners and sent to 1,200 county employees. The Firelands Audubon Society publishes a bi-monthly newsletter that has a circulation of 700 (in Erie and Huron Counties) to which NASA may contribute decommissioning information. Other newsletters published by area organizations include the monthly Perkins Public Schools Newsletter, About Our Schools, and individual school newsletters - including the Perkins High School Pirate - in Perkins Township and Sandusky. Since 1999, NASA has published Decommissioning Project

information in the two aforementioned Chamber of Commerce newsletters, the Firelands Audubon and Perkins Schools newsletters.

Since the interviews were conducted in 1999, many organizations have created websites, posting their newsletters there (and in some cases, ceasing publication of the newsletter in favor of putting all pertinent information on the website). NASA has included project information on the two Chamber of Commerce websites as well as those created by Erie MetroParks, the Erie County government, and the Erie County Convention and Visitors Bureau in addition to NASA's own Decommissioning Project Website.

Public meetings, or presentations to local civic organizations - such as the Kiwanis Club, the League of Women Voters, the Township Clerk and Trustees Association quarterly meeting, the Erie County Association of Fire and Police Chiefs and the Erie County Ministerial Association - were suggested as venues for reaching and informing a large population of citizens. One interviewee strongly recommended the Rotary Club of Sandusky, whose members active in the area's civic and business life. Another service organization, the Exchange Club, was also mentioned. Presentations to other professional groups were mentioned including the American Association of Physics Teachers and the Professional Engineers Society.

Since 1999, NASA has made a number of presentations to area groups, including the following:

Erie County Local Emergency Planning Committee, Margaretta Township (2002)
Saint Peter's Knights of Columbus, Huron (2002)
Commons of Providence, Sandusky (2002)
Kiwanis Club, Berlin Heights (2001)
Rotary Club, Huron (2001)
Firelands Red Cross Chapter, Sandusky (2001)
Senior Men's Fellowship, Sandusky (2000 and 2001)

Holding an Open House/Tour and a Community Information Session with a number of exhibits explaining various aspects of decommissioning were mentioned to interviewees who did not mention it unaided. The reaction to holding tour and community information session(s) was universally positive. People felt it was important for the public to be let "inside the fence" at NASA and to stress the ongoing unique work at Plum Brook Station. Those interviewed felt it would be important to provide basic information on radiation, to discuss safety and health issues; historic monitoring results and current conditions at the Reactor Facility and transportation safety related issues.

Locations suggested for public meetings of Community Information Sessions were the State Theatre in Sandusky, Firelands College of Bowling Green State University (BGSU Firelands) in Huron, Perkins High School in Perkins Township and the Erie County Conservation Club facility on Milan Road (US Highway 250) in Huron Township. BGSU Firelands, which has a 257-seat auditorium, a large student lounge area and a gymnasium, was almost universally recommended and is widely respected (and perceived as an entity with "no political agenda"). Since 1999, NASA has acted on several suggestions by the interviewees, holding Community Information Sessions at BGSU Firelands (1999 and 2000) and Perkins High School (2001 and 2002).

Several interviewees also mentioned the possibility of communicating information through the schools - especially science and environment teachers. Five educational professionals interviewed stressed that teacher participation be voluntary, but felt the introduction of the Decommissioning process could take many forms. These may include classroom discussion of newspaper articles on decommissioning, a tie in with other environmental issues - as supported by the Erie Huron Community Action Commission and Erie MetroParks, independent study projects undertaken by students at various grade levels in the Perkins Schools and the Post Secondary and "Tech Prep" programs that bring together BGSU Firelands and local schools. In these programs, middle and high school students may take classes at BGSU Firelands that are paid for through public schools departments throughout the state.

One interviewee, who at the time taught at BGSU Firelands, said he would welcome the chance to introduce decommissioning-related discussion to his students, which include both college freshman and high school juniors and seniors. Other interviewees debated the grade levels at which to discuss the topic with students. Some noted that high school students would have the greatest understanding of the topic, but probably the least amount of interest, while students in the lower grades may have the most enthusiasm and would be more likely to bring informational handouts home to their parents.

Other channels mentioned by community leaders included fact sheets, brochures and other written information. All interviewees who reviewed the fact sheets on Decommissioning and the History of Plum Brook Station thought they were useful, and should be made available to the general public. Several interviewees expressed interest in making copies available to their organization/office. Three interviewees urged that some kind of video production be undertaken, perhaps a short tape that touches upon the history and accomplishments of Plum Brook Station and also describes decommissioning. Finally, several interviewees mentioned making information available on the World Wide Web, either as part of the NASA Glenn Website or on a Decommissioning Website. NASA has since developed a video shown at Community Information Sessions since 2000 and is in the process of producing a broadcast quality documentary video on the history of the Reactor Facility. The feature length video is scheduled for completion in January 2003. In addition, NASA created a Decommissioning Project Website (www.grc.nasa.gov/pbrf) in August 2000 (see Section 5).

Minority Community Interviews

NASA Glenn Research Center (formerly NASA Lewis) developed an Environmental Justice Plan in 1996 that included Plum Brook Station. In keeping with the spirit of those plans, the demographics surrounding the area of Plum Brook Station were reviewed to determine whether other populations should be considered as populations of interest for communicating information on Decommissioning. The demographics of Erie County are predominately Caucasian with a small African American community. To ensure the concerns and perspectives of this population were also considered; five interviews were conducted with Erie County African American residents in March 2001, to obtain their perspective on potential concerns, perceptions and information needs, and preferences for communication. Additional research was conducted to identify non-profit organizations and other agencies that serve the African American population.

Awareness and Perceptions

Interviewees were asked about African American community awareness of NASA Plum Brook Station operations, the existence of the Reactor Facility and NASA's plans to decommission the facility. They

were also asked about perceptions of NASA, and possible information needs related to the project. Finally, interviewees were asked about preferences for communication i.e., frequency and methods.

All the interviewees were aware of Plum Brook Station's existence. Four Sandusky area natives had been aware of the facility for decades and they have had contact over the past few years with Plum Brook Station General Manager Bob Kozar. All had visited Plum Brook at some point in time, but had only a generalized knowledge of operations there, with one observing that, "all I knew was that they dealt with space." All six knew about the Reactor Facility and one interviewee had worked there until it was closed. At the time of these interviewees, only one person was unaware of NASA's plans for decommissioning. When asked how they learned about decommissioning, interviewees cited receiving something in the mail from NASA (two), newspaper advertisements or articles (two) or contact with current NASA employees. Two interviewees had attended Community Workgroup meetings but no others had attended a NASA event on decommissioning.

Perceptions regarding awareness of decommissioning were mixed. Two interviewees felt the African American community was generally aware of Plum Brook Station and the Reactor Facility, while two others felt the community would have little if any knowledge of the plans for decommissioning. One person observed that "on a scale of 1 to 10," African American knowledge of decommissioning was "about a 1.5." Another believed that while there was a "broad spectrum," of knowledge among the white population living near Plum Brook Station, "the black community is at one extreme or the other. Either a few people know a lot (about decommissioning) and have confidence that it will be done right by NASA and the regulatory agencies... or there are others who are completely ignorant," about the project.

Information Needs and Preferences

The interviewees were given copies of the June 1999 fact sheet that described NASA's intent to decommission the closed Reactor Facility. After reading the fact sheet, they had several questions, including (in order of mention):

- Job opportunities
- Health and safety concerns
- Where the waste will be disposed
- Environmental issues
- Economic impacts
- Waste removal
- Transportation routes
- The decontamination process
- The project schedule

After reading about radioactive waste in the alternatives section of the fact sheet, one interviewee remarked, "this is serious," and noted that "people in Toledo were up in arms," regarding the Davis-Besse nuclear plant. He also said the Sandusky black community "does not tend to get up in arms...but this is scary." Once this interviewee was told of the differences between the low level waste of a small reactor closed for nearly 30 years - versus a large, active power reactor - he seemed more reassured but still felt the community would regard health impacts as "a major concern," and would ask "will (decommissioning) affect the air, water and land?" He also felt the community would ask "what will the long term effects (of decommissioning) be 50 years from now?"

One interviewee, who formerly worked at Plum Brook Station, remarked that several waste disposal facilities “are located near black neighborhoods.” This interviewee added, “I understand decommissioning,” but said her neighbors would ask questions such as, “Would it affect the land? Would it affect farmers? What will happen to me as a taxpayer?” But another interviewee felt that radiation would not be a concern, believing that many of his fellow community members “do not perceive of (decommissioning) as a health hazard. Many of them do not understand radiation and those that do...will be confident that there will be no exposure problem.” Another interviewee felt people would want to know “where else (decommissioning) had been done and was it successful.” In response to these questions, he was given copies of the Decommissioning Success Stories fact sheet.

In contrast to the individuals who were interviewed during the summer of 1999 (all of whom were Caucasian), four people interviewed put economic issues on a par with health and safety concerns. Two asked about the effect of the project on their taxes, and two more asked about the prospect of jobs that might be generated by the project. One noted that the term decommissioning” seemed to connote job loss, saying, “I’m always concerned about economic destabilization.” Another felt people would ask, “If there’s decommissioning work, can I benefit?” This interviewee went on to say that other African Americans’ “primary concern will be ‘is there work?’... They’re not concerned about safety. They’ll have confidence that NASA or whoever will do what they have to do to make it safe.” Another felt that, because Plum Brook Station is “where it is...(decommissioning) would not affect (the health of) African Americans.”

Sources of Information

Interviewees were asked what sources of information would be considered most reliable or would be preferred for communicating decommissioning information to minority audiences. In contrast to the interviews conducted in 1999, these interviewees were mixed in their opinions of whether NASA employees would be considered reliable sources of information on decommissioning. One felt that the NASA Glenn Research Center in Cleveland provides information to Plum Brook Station “indirectly,” but that “a lot of that information is filtered.” Another remarked that he once asked two NASA employees about their work and found them “very secretive.” Two others felt the employees could be good sources, but did not feel that NASA gave the employees a lot of information to work with. Likewise, these interviewees felt African American community members were less confident about government agencies as sources of information on health and safety, and the environment than the earlier interviewees.

Two interviewees expressed more confidence in colleges or universities as sources of information, with one person citing the community’s relationship with BGSU Firelands and another suggesting “a sanctioned, private group...like Ralph Nader’s. His group relates well to African Americans.” This person also remarked, “people are skeptical of government.” In contrast, another said he had a good experience working with a representative of the Ohio Environmental Protection Agency. He reasoned that “government agencies do a good job at what they do, but they do not provide a lot of public awareness.” This view is consistent with research on the trust and credibility of information sources suggesting that how much information a source is perceived as providing is directly related to their credibility as an information source.

Print and Electronic Media

Four interviewees cited the Sandusky Register as a primary channel of information, with two specifically

mentioning a weekly column written by the Reverend Doctor Rufus Sanders, a local pastor. (The opinion column tends to focus on national issues of concern to African Americans). One other person mentioned the (Lorain Morning Journal and the Wall Street Journal as a personal, preferred source of information and another said he got most of his news from watching CNN. Three people also cited local radio stations WLEC and WGGN, noting that each carries a half-hour Sunday program for local churches. One interviewee said community members listen to black oriented stations in Toledo (FM 95.7 and 93.1) and Cleveland (FM 98.1) but do not listen to local stations.

Churches

There was unanimous agreement that the city's 20+ African American churches were the primary communication vehicles in the community "for news ...and gossip." One said church bulletins "tend to be like newspapers," in the African American community while another termed them "an excellent source of information... maybe the number one source." One person mentioned that a health organization had recently run an announcement on a screening program in a church bulletin and that placing information in church bulletins would be an effective means of communicating. He also noted that several churches would be amenable to publishing NASA announcements.

Fact Sheets

Two interviewees felt that fact sheets or "published information" would not be effective means of communication with the African American community. Another interviewee commented that the fact sheets contained "too much information" and suggested that the literature "cut to the nitty gritty." This sentiment was echoed by a third person that said, "the layout is too complicated...technical," and suggested that NASA "simplify them. Make them easier to read...Focus in on what you want to say."

Community Workgroup

Interviewees were asked about a Community Workgroup as a means of sharing information and receiving feedback on decommissioning. All felt the Workgroup was a good idea but some interviewees felt that, because the project was not located near their community, there was no sense of urgency about joining the Workgroup. One person felt that while "it's nice to have a Community Workgroup, (the African American community) will not be interested unless there are jobs involved." Another felt the Workgroup was "worth a try...people like to be asked their opinion," but also did not believe such a group would attract much African American participation. A third asked if there had been "public hearings" on the project, and when told that Workgroup meetings and Community Information Sessions had been advertised as open to the public, he responded "as you actually do what you're going to do, people will get involved...once (people) see a (waste) truck, the right person who has not been contacted will bring it up." Two interviewees said they might potentially be interested in joining as members but cited current, heavy work and community schedules.

The interviewees were asked for recommendations on potential new Workgroup members, with one person suggesting that new members not be recognized members of the community, but instead be drawn from the ranks of "people who work nine to five." Two people mentioned Deborah Saunders Sparks (formerly Deborah Alex-Saunders), who is active in minority housing and environmental issues, and one suggested Jeanette (Murphy) Henson, at the time a Sandusky elementary school principal active in local civic and business life. [Note: NASA subsequently invited both of these individuals to join the Community Workgroup. Ms. Saunders Sparks was able to join but due to other commitments had to resign and Ms. Henson declined due to other commitments.]

Channels of Communication and Frequency

Community members interviewed suggested a number of vehicles for communicating information on decommissioning. In contrast to earlier interviewees, all six said the local community churches were the most effective means of providing information. One interviewee said the churches were “our heritage,” and “a traditional vehicle” for communicating all types of information important to the community. Three people suggested the possibility of addressing a church congregation before a service begins, explaining that many churches in the community allow visitors to make announcements. One interviewee mentioned that many churches hold services at 11 A.M., with a fifteen-minute period preceding it for community announcements, and added, “a lot of politicians will go to four or five churches on a Sunday.”

Three people said that at least one church makes community announcements on the air during a Sunday morning on-air service. Three others mentioned the possibility of making fact sheets or other literature available in church foyers, saying that this is common practice in the African American community. Also, four people mentioned church socials or dinners as a means of communicating information, either by making an announcement or leaving literature.

Three people suggested the possibility of a church social or a meeting of a group of ministers with “breakfast or lunch,” as a means of communicating information on decommissioning.” One interviewee felt this would be a better approach than having a NASA meeting at one church, suggesting that the churches compete for leadership within the community and that NASA should “be careful of one-upsmanship,” adding, “you’d be better off talking to a forum of ministers...at a school facility.” In spite of this sentiment, one interviewee felt that former Workgroup member, Reverend Thomas Darden of Saint Stephen’s AME Church and the Reverend Doctor Rufus Sanders, Pastor of Emmanuel Temple Pentecostal Church had great credibility within the community. This interviewee explained that “in the 1970’s and 1980’s,” Pastor Darden was Sandusky’s “ex officio mayor,” while serving as a City Commissioner. Currently, there are three African American elected officials in Erie County: Sandusky City Commissioners William “Al” Mason, Leroy Sizemore and Sandusky Board of Education member Clinton Bennett.

Other Vehicles of Communication

Interviewees suggested a number of communications vehicles in addition to those mentioned above. One interviewee, a middle school science teacher, suggested a tour of Plum Brook Station. He wanted the tour as part of a Career Day in April, during which his students visit several local businesses and organizations and ask their hosts questions about science and technology. [The teacher was told that there probably was not adequate time for such a tour in 2001, but that the suggestion would be brought to NASA’s attention].

Two other interviewees suggested that decommissioning information might be made available at two dinners that attract a large African American following. They are the Citizens Coalition, which is working to bring an African American youth center to Sandusky, and the annual NAACP dinner. Two interviewees noted that the NAACP also publishes a monthly newsletter that could be a vehicle for decommissioning information and three people noted that several companies and organizations utilize both the NAACP and black churches as a means of communicating job opportunities. Two others mentioned a local sorority, Alpha Kappa Alpha, to which many African American professional women

belong. One interviewee suggested that NASA contact a Sandusky organization known as SAPSI, an African American teachers alliance, while two others mentioned the “Eastern Stars” Masonic Temple in Sandusky.

Finally, several community-based organizations were identified as intermediaries for reaching the African American community. These include: the Erie-Huron County Community Action Commission (CAC), a multiservice agency with program areas ranging from Head Start to recycling; the African American Alternative Center, which ministers to youthful offenders; the Center for Cultural Awareness, which serves an older and multiracial, at risk population; and the Sandusky chapter of the NAACP.

4.4 Stakeholders/Audiences

Based on the interviews conducted in 1999 and 2000 and the review of background information on the surrounding communities, a number of potential stakeholders/audiences have been identified for purposes of communicating information on the decommissioning of the Reactor Facility at Plum Brook Station. Each of these stakeholder groups may potentially differ in terms of their information needs, possible questions or concerns and, interest in the decommissioning process. Further, different audiences/stakeholder groups may access different information sources or channels for communication. For example, those interviewed suggested that members of the farming community in and around Plum Brook Station do not rely on cable TV, whereas others in the community may consider local cable as an important information source. This section of the Community Relations Plan identifies the various stakeholder groups and discusses potential issues, information needs and, preferences for communication.

Nearby Neighbors

Those who live closest to Plum Brook Station are identified as a separate stakeholder group as their proximity to the site and decommissioning activities may mean they have more active information needs and possibly different concerns. There are a number of streets that border Plum Brook Station. They include: Taylor Road (in Perkins Township); Fox Road (Perkins Township); Columbus Avenue (Perkins Township); Cambridge Circle; (Perkins Township); Schenk Road (Perkins Township); Milan Road (a.k.a. US 250 in both Perkins Township and Milan); West Bogart Road (Perkins Township); Patten Tract Road (Perkins and Monroeville); West Mason Road (Milan and Monroeville); and Ransom Road (Perkins and Monroeville). In addition there are several other streets and roads in the aforementioned communities that are within 1.5 miles of the Plum Brook Station fence line.

The area immediately adjacent to Plum Brook Station's northern border, including parts of US 250 (Milan Road), SR 2 (Sandusky Bypass), County Highway 120 (Columbus Avenue) and County Highway 112 (Clark Road), is primarily residential. A number of these are newer homes, in several subdivisions, including Lake Wilmer and Countryside. The population on Taylor Road is expected to increase substantially by the end of 2004, with the completion of a new development referred to as the Taylor Way Subdivision. It is located close to the Plum Brook Station fence line and less than a quarter mile from the facility's main gate. The Taylor Way Subdivision will include 84 lots, each containing houses varying in size from 1,700 to 2,500 square feet.

Over the last decade, the community around Plum Brook Station has continued to grow especially along Bogart Road, which is adjacent to Plum Brook Station. Those living in the immediate vicinity of Plum

Brook Station are among those who are most interested and have questions or concerns regarding decommissioning. The entering and exiting of trucks for decommissioning will be of additional concern to this group and NASA recognizes the need to obtain their input on traffic, noise and other aspects of decommissioning. Keeping local officials informed is important so that area residents may get their questions answered in a timely manner; so is directly informing neighbors of Decommissioning activities. To this end, NASA has included some 400 households within a 1.5 radius of Plum Brook Station on the Decommissioning mailing list, which currently consists of over 1400 names.

Farm/Agriculture Community

The farming community in Erie County and around Plum Brook Station comprises the oldest group of longstanding area residents in Perkins and Oxford Townships. The government initially acquired the land for the Army Ordnance Works. Some of the land - which was used for part of Plum Brook Station - was farmland. Providing information to the farming community will be important.

According to some of those interviewed, members of the farming community tend to be very civic minded and some are considered community leaders. Identifying community leaders to relay information to the farm community will be key. Inviting community leaders - as well as members of the farming community - to public forums, such as Public Information Sessions or facility tours, will also be important. Other interviewees noted a substantial decline in the economic and political influence of local farmers over the past two decades. According to one interviewee, there are but “five or six big farms now”, owned and operated by longstanding community families, and perhaps two dozen part time farmers. Two interviewees noted that many local farmers sold much of their land to housing developers in the 80’s and early 90’s. According to one interviewee, much of the farmland remaining in Erie County - especially in Perkins Township - has actually been leased to a large agribusiness concern, Schlessman Seed, which has its headquarters in Avery. In fact, this interviewee noted that the Perkins Public School Department disbanded its Vocational-Agricultural program a number of years ago, due to lack of demand.

Another interviewee observed that the local Grange Hall, formerly located on Mason Road in Bloomingville, has been converted into a private residence. Still, based on the farming community’s history of contributions to the areas business and civic life - and the fact that local farmland was taken from farmers for the former Ordnance Facility at Plum Brook - it will be important to reach out to remaining members of the farming community. This may be accomplished through clubs and organizations with which they are involved, including the Erie County Agricultural Extension Office, Erie County Soil and Water Conservation Office and the 4H Club. Providing information to club/organization leaders - so they can distribute it to their membership and direct outreach by Plum Brook Station spokespersons with these organizations - will also make for effective channels of communication. A local, well-known farmer -former State Representative Fred Deering of Monroeville - served on the Decommissioning Project’s Community Workgroup from 1999 to 2001 and his son Daryl, also a farmer, has attended several Decommissioning events.

Business Community

Both Erie County and Huron both have strong business communities and active Chambers of Commerce. There are more than 500 members in the Erie County Chamber (mostly in Sandusky and in Perkins Township) and over 150 in the Huron Chamber. Appropriate vehicles of communication include articles

or notices in the Chamber newsletters and potentially briefings at Chamber meetings. In the past, the Erie County Chamber has co-sponsored "Business After Hours" programs at Plum Brook Station, which included briefings on important research and testing activities. The Erie Chamber of Commerce Community Booklet, On a Typical Day in Erie County, has included photos of Plum Brook Station.

In addition to the two Chambers, the business community is also involved in a number of civic organizations such as the Rotary Club, the Kiwanis Club, the Exchange Club, the Zonta Club (a leading women's organization), the Sandusky Area Safety Council, Habitat for Humanity and the Elks. These organizations have regularly scheduled meetings and some publish newsletters and/or maintain websites, which are good vehicles for communicating with the business community about the Decommissioning Project. Since 1999, NASA has included announcements on its Community Information Sessions, as was noted in Section 4.3 (Channels of Communication). Several interviewees noted that the business community has had a longstanding positive relationship with Plum Brook Station staff. This group will want to be aware of the Decommissioning process and will most likely be interested in ensuring that area traffic not be unduly disrupted and that decommissioning will not have any impact on health or the environment.

Several business and service organizations have expressed an interest in receiving information on decommissioning and having a NASA representative speak on the topic. The Rotary Club of Sandusky includes members of the business community, educators, medical and other professionals from both Sandusky and Perkins Township. The organization meets at noon, each Thursday, at Ramone's Restaurant on Fremont Avenue. The luncheon meeting generally lasts one hour and includes a 15-20 minute speaking presentation. The Rotary has hosted NASA speakers in the past and has indicated an interest in a Decommissioning speaker.

Sandusky's chapter of the Exchange Club would also be interested in having a NASA representative speak about decommissioning. The organization has approximately 50 members and includes both Sandusky and Perkins professionals, such as educators, judges, attorneys and law enforcement officials. [The Exchange Club is a national organization that, according to its former Sandusky president, focuses its efforts on preventing child abuse and "promoting Americanism"].

Another active business and service organization is the Kiwanis Club, which meets at noon each Tuesday at the Raddison Harbour Inn. The Sandusky chapter has more than 60 members and invites speakers in for three meetings each month (the other meeting is devoted to chapter business issues). The local Kiwanis president said his chapter has hosted NASA speakers before and would like one again. NASA Decommissioning representatives Keith Peecook and Sally Harrington spoke to the Berlin Kiwanis Chapter in June 2001.

The Lions Club of Sandusky also has weekly meetings and approximately 50 members. Other active business, service, fraternal and community organizations in Sandusky include the North Central League of Women Voters, VFW Post 2529, American Legion Post 83 on Hayes Avenue in Sandusky, Elks: Lodge 285, located on East Adams in Sandusky and the AMVETS, located on Putnam Street in Sandusky. There are also several organizations in Huron, including the Huron Rotary Club, Lions Club, and League of Women Voters. Keith Peecook spoke to the Huron Lions Club in October 2001. Several of these groups in Perkins, Sandusky and Huron were among the 74 organizations NASA reached out to in encouraging attendance and participation at the Community Information Session in 2002.

Local Officials

Because Plum Brook Station is located in close proximity to four townships and several cities, there are a number of local officials around Plum Brook Station, who need to be kept informed throughout the Decommissioning process. Key officials to be informed and involved include; the Erie County Commissioners and County Administrator, Perkins Township Trustees and Township Clerk, Police and Fire Chiefs; the City of Sandusky Commissioners, City Manager, and Police and Fire Chiefs; Huron City Council members and City Manager; and the Trustees and Clerks in Milan, Oxford and Huron Townships.

In addition to the above-mentioned officials, several county and municipal emergency response agencies should also be informed and involved throughout the decommissioning process. These agencies include the Erie County Emergency Management Office, Health Department, Sheriff and Local Emergency Planning Committee (LEPC); Sandusky and Huron Police and Fire Departments and the Erie County Sheriff. Coordination with these agencies will be especially important during development and implementation of the transportation plan for the Decommissioning process. NASA has established several means of communicating with several of these groups. For example, NASA has a Contingency Plan and a Spill Prevention Control Plan, which govern existing operating facilities at Plum Brook Station. These plans are on file with the Erie County Emergency Management Agency (EMA) and Perkins Township Fire Department. NASA maintains close contact with the later two agencies and both the EMA Director and the Fire Chief were founding members of NASA's Decommissioning Community Workgroup. NASA also has signed emergency response agreements from the Perkins Fire Department and the former Firelands and Providence Hospitals (merged in 2001 and now known as the Firelands Regional Medical Center). Further mechanisms for informing local officials are included in Section 5 of this Community Relations Plan.

Plum Brook Station Resident Agency Staff

There are several resident federal agencies at Plum Brook Station. These include: the U.S. Department of Agriculture [Animal Plant Health and Inspection Services (USDA-APHIS) and its Wildlife Research Division]; the FBI; and the Department of the Interior (both the Fisheries Research, Sandusky Biological Station and its Law Enforcement Division). There are also non-government organizations in residence, including the Plum Brook Operations Support Group (PBOSG). There are currently 14 NASA civil servants and 99 contract and/or support service employees working at Plum Brook Station. Because staff and contract employees are located at Plum Brook Station and are members of the community, it will be important to provide them with accurate information, as they will likely serve as informal information sources to area residents. Some of these employees are also part of the NASA Glenn Speaker's Bureau. Speaker Bureau participants provide presentations and briefings to local and area organizations. They will need information on decommissioning so they can respond to questions if asked. They should also be given copies of fact sheets to distribute as appropriate. Plum Brook Station staff can be kept informed by routine channels of communication such as employee meetings or briefings. In addition, information can be targeted to NASA Plum Brook Station and Glenn staff through the NASA Glenn monthly newsletter "AeroSpace Frontiers", the Intranet, and Websites for the Decommissioning Project, Plum Brook Station and NASA Glenn. Articles on the Decommissioning Project have been included in "AeroSpace Frontiers" and copies of the project's quarterly newsletter have been sent to NASA staff and contractors at Plum Brook Station.

Retirees/Previous Contract Employees

A number of NASA Glenn and Plum Brook Station retirees and former contract employees reside in the communities surrounding Plum Brook Station. Many of these retirees may have worked at the Reactor Facility when it was operational. This group is very aware of the Reactor Facility's excellent operating and safety record, and has a continuing interest in the activities of Plum Brook Station. Former employees have a natural interest in the activities at Plum Brook Station. They may also be the group most interested in the technical aspects of decommissioning.

Since submittal of NASA's original Community Relations Plan for Decommissioning the Reactor Facility, NASA retirees have provided an important link to the community and the Decommissioning Team. NASA retirees meet informally once a month for breakfast at the Perkins Family Restaurant, and hold reunions at Plum Brook Station every few years. In September 2002, some 250 current and former NASA workers attended the reunion, with plans to hold the next one in 2006. NASA distributed flyers announcing the October 16 Community Information Session to the group. Several retirees have been regular attendees at both quarterly Community Workgroup meetings and the annual Community Information Sessions and have played an important role in providing a historical perspective on the Reactor Facility. Over the last two years, several retirees have been assisting NASA in archiving material related to the operation of the Reactor Facility and have also been interviewed for the aforementioned documentary video. In addition four retirees who formerly worked at the Reactor Facility were invited to participate in the tour of the Reactor Facility for Workgroup members in April of 2002. In addition, Cleveland radio station WCPN-FM (Cleveland's National Public Radio outlet) aired, on October 7 and 8, a two-part series on the Reactor Facility that focused on interviews with several NASA retirees in which they discussed their roles when the facility was operational as well as their input into the Decommissioning Project.

Tourists/Recreational Users

It is not possible to identify a specific population that comprises the tourist community. Based on comments made by the interviewees, it is not likely that tourists or recreational users of the area will be aware of the decommissioning. Most tourists are day-trippers or come for short stays. It will be important, however, to ensure that business leaders (at Cedar Point in particular) in the area are kept informed of decommissioning activities at Plum Brook Station so they can relay information to tourists if need be. Tourists and recreational users may also visit the area's nature reserves, such as Sheldon Marsh and the Old Woman Creek Preserve. The directors of both nature reserves are former members of the Community Workgroup. Material on decommissioning, such as fact sheets can be placed in these areas. The Erie County Convention and Tourism Bureau, along with business leaders, are on NASA's mailing list for quarterly newsletters. NASA also sent flyers on the October 2002 Community Information Session to the nature reserves and the Bureau, along with an announcement for their Websites.

Army Ordnance Restoration Advisory Board

The U.S. Army Corps of Engineers (USACE) is engaged in a cleanup of the former Army Ordnance site within Plum Brook Station. That cleanup is the responsibility of the Army. The USACE formed a Restoration Advisory Board in 1996 to serve as a liaison between the Army, EPA, State, and the community. The Restoration Advisory Board (RAB) consists of local citizens and agency representatives. A member of NASA Plum Brook Station also sits on the RAB. The purpose of the RAB is to receive input from community members, and update the community on the current progress - and proposed future actions - of site cleanup activities. The RAB is also supposed to serve as a focal point for

the exchange of information between the USACE and the local community regarding restoration activities and promoting public participation in the decision-making process. Because this existing group is active and serves as a channel to the community, it will be important to keep this group informed about decommissioning activities. Three members of the RAB, including its Citizen Co-Chair are also members of the Decommissioning Community Workgroup. Results of the community focus groups noted some confusion among the general public in terms of decommissioning of the Reactor Facility and clean up of the former ordnance site and, who is responsible for the cleanup. NASA may need to develop materials that clearly differentiate the ordnance cleanup from decommissioning activities and clarify the USACE's role as the responsible agency.

Decommissioning Team Members and Staff

There are some 84 on-site employees, 20 NASA, 5 USACE and 59 contractors who are part of the Decommissioning Project Team. They include personnel from the USACE's prime contractor Montgomery Watson Harza and subcontractors Framatome ANP DE&S (formerly Duke Engineering & Services), MOTA Corp., WACH's Technical Services and the Plum Brook Operations Support Group. These employees play a key role, not only in the work they do but also as ambassadors for the project. Several have volunteered to staff information displays at Community Information Sessions and/or have attended Workgroup meetings. It is important to provide these workers with information such as newsletters and fact sheets, as well as in meetings and conversations as the project continues.

4.5 General Community Focus Groups

In August, 2002, four focus groups (small, facilitated discussion groups) were held with a small sampling of residents included in NASA's outreach efforts, including, Perkins Township, within a two-mile radius of the fence line (Group One); Sandusky (Group Two); Huron and Huron Township (Group Three); and Milan, Berlin and Oxford Township (Group Four). The purpose of the groups was to determine the levels of awareness and knowledge regarding decommissioning and specific outreach activities; identify perceptions/concerns; determine what questions people have and their information needs; determine the level of trust in NASA as a source of information; and determine preferred methods of information dissemination/outreach for future activities. The focus groups were also intended to serve as a comparison to the baseline information collected from the employee, retiree and community leader interviews in 1999 and 2000 prior to approval of the Decommissioning Plan and start of decommissioning activities.

This section of the Community Relations Plan summarizes the findings; conclusion and recommendations from those groups; the complete executive summary and a copy of the discussion guide is included in Appendix B. Individuals were randomly recruited from the four geographic locations by a telephone recruiter, screening out individuals who were employed by NASA; NASA contractor's at the Reactor Facility; or elected government officials. Participants represented a cross section of demographics, including gender, age, income level, and education. Thirty-one (31) individuals participated in the groups, with seven or eight people in each group. The sample included slightly more women than men, with an average age of about 46 (ages ranging from 25-65), and an average income around \$50,000. All respondents were Caucasian, although the recruiters attempted to engage a more diverse group. The average education level was some college, ranging from high school to postgraduate. Six (6) of the thirty-one participants (19%) were on the NASA PBS mailing list prior to attending the focus group.

Questions and discussion in the focus groups covered four key areas: (1) awareness and perceptions of NASA and Plum Brook Station, and decommissioning of the Reactor Facility including both spontaneously suggested responses and responses to specific questions; (2) response to information materials produced by NASA to describe and explain the decommissioning process, exploring how they responded to the information, general perceptions and concerns and what questions were raised; (3) community outreach awareness and response to NASA's ongoing efforts to reach and engage the communities; and (4) preferred sources of information and outreach methods. In addition to the standard sequence of questions, materials were handed out to read and discuss. Participants were not told at the outset, or in the beginning of the groups, that NASA was sponsoring the research, or the specific topic.

Awareness and Perceptions

In the one-on-one interviews conducted to support development of the initial Community Relations Plan in 1999 and Revision 1 in 2001, those interviewed knew in advance that the topic of the interview was Decommissioning of the Reactor Facility. In contrast, participants in the focus groups were not informed in advance of the topic of conversation other than that the discussion would address "issues of community interest". At the start of the focus groups, participants were again asked to note issues of community interest. The most common top-of-mind issues were education; infrastructure (roads, transportation, tax base); land use (urban sprawl and loss of farmland to development); environmental "problems" or issues and resultant impacts on public health; and Davis-Besse's nuclear reactor leak and shut down. In two of the groups one or two people mentioned NASA unaided, but generally NASA Plum Brook Station was not top-of-mind for most of the respondents as a community issue. When asked specifically what environmental issues were top-of-mind, those mentioned most frequently were: water and air quality; contamination of the land and groundwater from landfill projects; impact of the quarry blasting on air quality; concern about manufacturing waste, and the First Energy Davis-Besse nuclear power plant

All were aware that NASA had a facility in the community, but most had a very low level of knowledge about NASA Plum Brook Station. There were two common sources of confusion or misinformation in all four of the groups. Many participants thought that NASA had a direct role in the ordnance clean up, at Plum Brook Station (and were unaware that the U.S. Army Core of Engineers was in charge of the clean up activities). Some participants confused the ordnance cleanup with that of decommissioning, or were concerned that radioactive waste might be stored in the bunkers. The second area of confusion was about whether Plum Brook Station is an active site; some thought it had been "decommissioned" or was closed down; some thought it was being leased to someone else. A typical comment on this was, "The facility is pretty much closed down." Only a few knew about the ongoing active research at NASA Plum Brook Station.

Further, in spite of the extensive community relations efforts on decommissioning to date, the level of awareness of NASA's Decommissioning of the Reactor Facility at Plum Brook Station was overall low, and varied among the four groups. In three of the groups there were one or two people who were very aware and at least somewhat to well informed and in one group about half the respondents were aware. Those who were very aware had become aware via some form of NASA's community outreach efforts or through word of mouth from friends and relatives. Three of the 31 respondents had been on a tour at NASA or been onsite and knew something about its research activities; One had been to a community meeting on decommissioning; Three or four recalled getting mail about NASA; One or two had a family member or close friend who had worked in NASA (one in the reactor lab and one in security); and one

had heard a NASA speaker at his Kiwanis club.

Davis-Besse was an issue and top of mind concern in three of the groups. The recent leak and shut down had a number of people worried about radiation and fearful for personal safety. Because the event there was so recent and media coverage ongoing, some people's perceptions were influenced by their concerns regarding Davis-Besse, creating a 'fall-out' factor and initially, a transfer of their concerns about Davis Besse to the Reactor Facility at Plum Brook Station.

Perceptions of NASA as a "Neighbor"

In the community leader interviewees, people were asked in general how they thought NASA Plum Brook Station was perceived as a "neighbor" among community members. As previously described, interviewees generally felt NASA was perceived as a "good neighbor" although they did point out that many people may not really be that familiar with NASA any longer. In order to gauge general community sentiment of NASA as a "neighbor", focus group participants were asked to grade NASA, using a report card, as a "neighbor", at the start of the focus group before they had been told that NASA was sponsoring the research, based on what they knew, had heard, or thought, using a scale of A= excellent; B= very good; C= Not great, not bad; D= not very good; and E= terrible. Using a "C" as a neutral grade, participants gave NASA neutral to positive grades as a neighbor, even without much information to respond to. About two thirds of the respondents noted that they were giving NASA the benefit of the doubt; in the absence of negative information from friends, and an absence of negative news stories in the papers, they assumed everything must be going pretty well. Some people compared NASA very favorably to First Energy (owner/operator of Davis-Besse), saying they didn't like the way they were surprised by the Davis-Besse nuclear leak (though none called it a crisis) and gave NASA credit for making the effort to keep people informed. At the end of the focus group discussion participants were asked whether they would change their grades based on the information provided in the focus group. A number of participants decided to alter their initial impressions and grades. The final grades that were given at the close of the focus groups showed significant improvement in all the groups. Initially, there were 23 A's, 48 B's, 58 C's, 13 D's and 2 E's in the first round of grading. In the final round of grades, there were 37 A's, 58 B's, 46 C's 9 D's and no E's. The highest improvement in grades were given to how NASA was at keeping the public informed, safeguarding health, and complying with federal regulations.

Information Needs and Preferences

Similar to what occurred during the interviews, participants in each group were asked to read and review a number of materials developed by NASA on decommissioning and respond to them. These included: the Postcard Magnet announcing NASA's Website and noting all the ways people could receive information on decommissioning which was mailed to over 1200 people in February 2001; several articles from the Newspaper Supplement on decommissioning that was inserted into the Sandusky Register and Norwalk Reflector in 2002 (Decommissioning Approved by NRC, Safeguards for the Community and Workforce, and Letter to the Community); the Fact Sheet, *We Want You To Know* (June 1999) which had also been given to those interviewed in 1999 and 2000 and one issue of the Quarterly Decommissioning Newsletter from July 2002. These were followed by discussions of the questions people had after reading the information and subsequently, reaction to NASA's outreach efforts regarding decommissioning.

Participants had a number of questions as they read and discussed the materials, and as they raised their awareness they became more engaged, and their questions changed from general to more focused on specific areas of interest. In many cases as they progressed through a series of materials they found many of their questions answered, and some left unanswered by the materials selected to review. Not surprisingly, for those not very aware or previously informed about decommissioning efforts, their primary questions were similar to those noted by interviewees in 1999 and 2000, but in many instances, these participants had even more detailed questions. These included:

- How much radiation exists at the Reactor Facility
- Where is the radiation- in what materials onsite
- Where is radioactive material being stored, both offsite and onsite
- How much material will be removed (shipped offsite) and how to frame the concept of the volume of materials being removed
- How safe or dangerous is the site now to people in the area
- Who is monitoring the levels of radiation
- What does low level radiation mean
- How are radiation levels measured
- What does natural background radiation mean, and compared to what (e.g., to radon)
- Who is monitoring (checking) the people who monitor
- What is NASA planning to do with the site after it's cleaned up
- How do we/will we know if there is a leak/problem
- Have there been any historic health problems associated with the site in terms of cancer/death associated with radiation
- Is the facility (and waste shipments) safe from terrorists

In addition to asking about questions and information needs, participants were asked about their overall reactions to the content and style of materials they reviewed. Reactions to the Newspaper Supplement were overall positive, both to the concept and the content. The four page Newspaper supplement contained a number of articles but participants were only asked to read one or two of them. Overall, the article on the NRC's approval of the Decommissioning Plan was thought to be more difficult to digest and somewhat "technical", especially when it was the first article read, and first exposure to decommissioning for many. They found the article on Safeguarding Human Health and the Environment to be more informative, less technically dense, and in a more accessible tone. The Letter to the Community from the NASA Decommissioning Project Manager Tim Polich was favorably received, eliciting comments with more effect (for example noting that Tom Polich seemed likeable and sincere), although a few skeptics called it too 'warm and fuzzy' or wondered if it had been written by a Public Relations person. The range of reactions expressed is consistent with the expectation that different people will have different preferences for both the style and level of detail provided. Overall, recall of content was best for the two articles that had a more "narrative" format and tone.

The groups that reviewed the Fact Sheet, *We Want You to Know*, liked the presentation of information a lot, for its simple, bite-sized pieces, and the use of color, sidebars and bullets to make the information more accessible and allow the reader to read what interested him/her most and in varying order. The format allowed people to take in and recall a lot of different information more easily, and to see everything in the context of the main text.

Overall, results of the four focus groups indicate that a balance between hard facts and a more narrative style with active voice and a more personal feel seem to best meet people's needs for both information and affect. Because people have different learning styles it's important that NASA's information and outreach efforts continue to include a variety of materials presenting information in different ways, both in layering different levels of information and presenting it in a more accessible format.

Sources of Information

Most of the people in all of the groups were not familiar with information about Plum Brook Station or Decommissioning; in Group One, with four (4) people on the Decommissioning mailing list, only two were familiar with it. While a few people had direct personal knowledge of NASA, most of the others had formed their impressions from a variety of sources, mostly word of mouth from friends and family who'd worked at NASA as employees or contractors, or acquaintances who seemed to them to be well informed. Two people had read about the Community Information Session or the Community Workgroup meetings in the newspaper calendar section. Of the six (6) people already on NASA's Decommissioning mailing list, only half of these mentioned NASA as a primary source of information.

Overall, participants felt that NASA was a highly credible agency and that NASA employees were a trustworthy source of information, based on NASA's track record as a neighbor or reactions to the materials. The process of learning about, discussing and having their questions about decommissioning did have an impact on respondents' perceptions of NASA and opinions about decommissioning, especially their perception that NASA was being proactive and open with a variety of information and methods to inform the public. A few skeptics, mostly those who were most concerned at the outset about Davis-Besse's lack of candor, were suspicious of government in general, big business in particular, and generalized this to NASA as well.

Most participants said that, in addition to NASA spokespeople and staff, they would like to hear about Decommissioning from independent, unaffiliated experts in science, health and safety. They felt independent experts might be more candid and speak more plainly in answer to their questions, and that they might be more likely to attend meetings and ask questions if experts from the community were there. All participants were very enthusiastic about the Community Workgroup; in part it met their need for independent expertise and accessible community-level sources.

Channels of Communication

Participants were shown the Postcard Magnet as one example of NASA's community outreach effort and the menu of opportunities to learn more about decommissioning were discussed as a means of determining preferences for communication and reaction to NASA's outreach efforts to date.

The focus group participants had earlier expressed a low level of effort in seeking out more information about their issues of concern, but regarding decommissioning, they were interested in both one-way information channels (direct mails, newsletters, newspaper supplements, and exhibit), and two-way channels (meetings, tours, information line and interactive websites). Overall, the postcard magnet, the Website, the Community Workgroup and the Decommissioning Newsletter got the most positive response from the most people in all four groups. The Telephone Information Line, Community Information Sessions and Community Information Bank got positive, but less enthusiastic, responses from the focus group participants. These were all raised toward the end of the groups, due to time

limitations, and some participants did not see the CIS or the Information Line as interactive ways of gathering information and getting questions answered.

Postcard Magnet

Overall, participants were very enthusiastic about the postcard magnet, saying it was a good idea, a good presentation of information, and showed an impressive variety of information sources and activities listed on it. Several people commented that NASA seemed to be doing a lot to reach the community and encouraged NASA to send it out again to a wider audience. Of the six people in the focus groups who were on NASA's mailing list, about half remembered seeing the magnet, though none reported keeping it posted.

Website

The Decommissioning Website appealed to most people (almost all had access at home, work or through their kids) because it's not time-restricted, and they expected to find a lot of information there, and pick and choose their way through it. This appealed especially to people who didn't want "too much" information all at once, on the assumption that a) everything produced by NASA would be there, and b) it would be organized to make it easy to find and navigate what they wanted to know, pacing and choosing information themselves. People viewed the Website as being a dynamic source of information, assuming it would have regular, timely updates on the process, meetings and events. They also wanted (and expected) an option to send an e-mail with questions that would be answered within 24 hours, and receive a response.

Community Workgroup

The Community Workgroup had enormous appeal as non-employee outside "experts" from the community, like themselves, with objectivity and credibility, and as independent monitors of the project. In every group most people recognized the names of people in the Community Workgroup, and several people in each group personally knew a member or two from work, church, or the community. Overall, the members were seen as being credible community leaders, honest and accessible to the community. Respondents also liked the two-way nature of the Community Workgroup as a method of getting answers to their questions and keeping them informed. They were positive about the quarterly meetings being open to the public, and several indicated they might attend a meeting in the future. Despite their familiarity with those listed Workgroup members – only one person had heard anything about decommissioning directly from a Workgroup member - suggesting that more attention may need to be placed on having members be more active in their dissemination of information.

Newsletter

The Quarterly Decommissioning Newsletter was not discussed in much detail in the groups, but was met with approval as a good idea and format. They liked the look of it and the level of information it contained. In each group, almost everyone picked up a copy or two of the newsletter on their way out, and 21 of 31 respondents signed up on the Decommissioning mailing list as they left the focus group (six were already on the mailing list, though they may not have known it).

Telephone Information Line

The Telephone Information line was generally thought to be a good idea, although more people indicated a preference toward the Website as a source of information given that they preferred interaction to a preprogrammed menu of choices. (This may just reflect disillusionment with customer service lines from utilities and large organizations that do not give people the information they want.) However, most liked

the idea better when they learned they could leave questions and get a response within 24 hours, and several mentioned it would be their first option to get information in the event of an emergency.

Community Information Sessions

Although most participants had not heard about the CIS, in general they felt it was a good idea and several said might make the effort to attend, and one said she'd rally her neighbors if it were in her own neighborhood.

Community Information Bank

The Community Information Bank was familiar only to one very well informed respondent, and the rest had not heard of it. A few asked if the information was available at local libraries, but none seemed very interested in getting out to review the material. Again, this came at the end of the focus groups, and often followed respondents' stated preference to have information come to them.

Frequency of Information

In several of the groups, there was some discussion about how much information people need to know, with most feeling the information should definitely be made available and others wondering whether too much would scare or overwhelm "the public". Several noted that NASA is well served by having had information go out on a regular basis. The desire to have NASA make information available was not necessarily linked to a personal decision to learn more; often, what people expect government and industry to tell them and what they believe is their responsibility to learn or take action. This is consistent with the earlier finding that most people had not pursued issues they had cited as being of local interest at the start of the focus groups – and with a tendency among people who do not have well-formed opinions or prior beliefs about a topic or see it as personally relevant to seek further information or take action.

A small number of people in each group clearly were interested in learning more and said they would speak with Community Workgroup people, go to the Website, and read the newsletter. Another small majority felt the information should come to them in the mail and they'd be more likely to read it. Generally, they felt that quarterly newsletters were a good idea, and that an Information Line and Website should be updated on a regular basis, at least monthly if not biweekly.

Preferred Methods of Outreach

While the respondents expressed interest in a number of the vehicles NASA has to keep them informed, they also suggested a variety of ways NASA could make the surrounding community more aware of the Reactor Facility Decommissioning. When asked what more or what else NASA could do to get information to the public about decommissioning, respondents had a number of creative ideas. The most popular of these (supported by the most people in each group) included three primary methods that had been referenced in the interviews previously conducted with employees, retirees and community leaders specifically, broader newspaper coverage; outreach to the schools; and Open Houses or tours of PBS. While not mentioned by those previously interviewed, the other most common mention for recommended outreach was placing billboards on Rt. 250 with the NASA telephone information line number or Website.

Newspaper Coverage

News stories, features and editorials about decommissioning were mentioned repeatedly by several different people in every group as a preferred way to keep people informed, give them different

perspectives on the issues, and show them what leaders and other people in their community think about it. Several people in each group noted that they are unlikely to read the calendar section for meeting notices, but a news story would more likely turn them out for meetings. Note: in spite of this, people did not recall the coverage that occurred following the media tour suggesting again that messages need constant reinforcement and that even with the recent events concerning Davis-Besse, decommissioning has not created widespread public fear or concern.

Working With Schools

In three of the groups, several people suggested, and a majority supported, educating kids in school and sending materials home with them as a way of reaching them and their parents, because they read what their kids bring home. This was a very well received idea and even those whose kids are through school thought it would engage more parents if they got the information through the schools. This finding is consistent with other research that shows schools and educating children are an effective means of getting people to attend to information. This recommendation is also consistent with those made by interviewees and NASA Community Workgroup members. Several respondents suggested that news coverage of presentations to schools would show the community that NASA is reaching out.

Annual Open Houses

Several people suggested that annual open houses would be a good idea, and that a tour of the facility with workers would put it in perspective. In spite of earlier preferences for an independent verification, many of the people in each group seemed to feel that NASA employees would be credible sources, and that talking with them on-site might go a long way in reassuring them that the site is safe and well monitored.

Billboard

In several of the groups, the suggestion was made to raise visibility with a billboard on Route 250 near the PBS turnoff, just to tell people they can get their questions answered by calling or visiting the Website. Because there was a relatively low level of awareness of either the Website or Information Line, people felt NASA needed to better advertise the availability of these information sources. Again, this finding is consistent with recommendations made by Community Workgroup members.

Public Service Announcement (PSA) Campaign

A few people made the suggestion that a PSA campaign, including newspaper, radio and television PSA's would have a good impact and reach a lot of people.

Summary

The results of the focus groups to gauge general community awareness, perceptions, information needs and preferences for communication indicate that overall, NASA's community relations efforts to date have had some positive impact and confirm the strategy that multiple channels and messages or information overtime with reinforcement are needed to reach a broad and geographically dispersed audience. Even those on the mailing list had a relatively low awareness, suggesting that either the interest level of individuals is relatively low or, that the stage of decommissioning (i.e., planning versus the actual conduct of work) have not yet generated focused attention such that people were in the information-seeking mode. Other research and empirical observation supports the hypothesis that when people do not perceive an issue as being directly salient to them, they attend to and process information more peripherally. In these instances, the affective component of a message may be more important such

as whether the source of information is trusted or not. Conversely, when people perceive an issue as being directly pertinent to them, they process the information more centrally and will look at facts and supporting information more closely. This research along with the findings from the focus group support the ongoing need to continue reaching out through many channels to different groups and individuals, in a steady stream, using a variety of formats and two-way activities. In addition, NASA needs to be more proactive in differentiating the Plum Brook Station Reactor Facility Decommissioning Project clearly from the USACE ordnance clean-up project, and continue to differentiate the Decommissioning of the Reactor Facility from the issues and problems of Davis-Besse.

5.0 METHODS OF COMMUNICATION

The selection of community relations activities related to the decommissioning of NASA Glenn Research Center's Plum Brook Station is based on the information gathered from the 1999 and 2001 community leader and employee/retiree interviews regarding the information and involvement needs and preferences, specific to the public surrounding Plum Brook Station, and on four community focus groups held in August 2002 regarding awareness, perceptions, information needs and responses to NASA's outreach efforts, vehicles and materials to date.

Activities designed to inform or involve the public are often not effective if they are not tailored to the specific audience's needs. In developing the original Community Relations Plan (CRP) in 1999 and in the first revision in 2001, NASA identified specific audiences or interested stakeholders. Information on community leaders and general community member perceptions, concerns, information needs, and preferences for communication have helped and will continue to help NASA communicate in the most effective way. Further, NASA recognizes that certain elements of the decommissioning process will benefit from community input. Community input will continue to help ensure that NASA's decommissioning of the Plum Brook Reactor Facility will be done in a way that minimizes any impact to the surrounding communities.

The community relations activities described in this plan are targeted to specific steps in the decommissioning process while remaining flexible and dynamic. There are at least five discrete phases in the decommissioning process for community relations activities which cover the following periods: (1) during NASA's development of the plan, prior to submittal to the NRC; (2) after plan submittal in late 1999, during the NRC review and NASA pre-decommissioning activities; (3) after plan approval in March 2002 and commencement of the site activities; (4) during decommissioning (2002 -2007, now ongoing); and (5) during final survey verification of achieving the decommissioning clean up goal (2007). Each of these phases requires potentially different types of community relations activities. The level of activity will also likely be different during these different phases. For example, now that decommissioning activities have commenced, more frequent updates will likely be required and more outreach may be necessary.

To date, the frequency and selection of techniques has been based on community needs and preferences identified via the interviews, focus groups and feedback received during specific outreach activities. This process of continually assessing the best ways to provide information will continue throughout decommissioning. The premise in selecting the activities outlined in this plan is to establish a two-way dialogue with the surrounding communities and to ensure that the public be kept adequately informed and involved throughout the decommissioning process. Finally, evaluation will continue to be an important part of the community relations program to ensure its overall effectiveness. Specific evaluation measures will continue to be incorporated throughout the decommissioning process

5.1 Techniques and Timing

Informing and involving the community in the decommissioning process requires two types of communications: one-way and two-way. Both types possess unique characteristics that are integral components of this Community Relations Plan (CRP). One-way communication activities will be used to build awareness within the community, through such channels as news releases, media advisories, newspaper supplements, direct mailings and fact sheets. These types of community relations activities allow NASA Glenn to inform and educate stakeholder/audience groups about issues associated with the decommissioning process, and provide updates for ongoing plans that quickly and effectively reach large groups of people. Two-way communication techniques are designed to encourage an open dialogue between NASA Glenn and the surrounding communities, thus enabling NASA to identify and understand community concerns, while providing opportunities for members of the public to be involved in the process. Two-way communications activities, such as Community Information Sessions, briefings, and Community Workgroup meetings, (See sections 5.3 and 5.4) or tours of the PBS facility will encourage participation and input from stakeholders by providing the opportunity for questions or concerns to be raised. Trust from the community is enhanced when opportunities to express questions and concerns, and be involved, are provided.

The remainder of this chapter of the CRP is broken into sections that correspond to the various community relations approaches. Specifically:

- Ways to build awareness;
- Ways to inform and educate;
- Ways to involve the community; and
- Ways to evaluate the community relations activities.

It should be noted that some of the techniques listed under a particular category are appropriate for multiple purposes. For example, a Web page can be used to both increase awareness and educate people. The use of the above-identified categories is to facilitate the selection of techniques relative to NASA's intended goals. For each of the techniques listed, the purpose of the technique is provided along with a brief description of the tool. In addition, where applicable, the response of the community to date is also briefly described.

5.2 Ways to Build Awareness

Building awareness of NASA Glenn's plans for decommissioning is a critical first step in any Community Relations Plan. NASA Glenn needs to be a credible source of information about the decommissioning process. Building awareness can be done without creating undue concern or alarm. The community and employee/retiree interviews, as well as focus group findings, confirm that many community members are still not aware of the former Reactor Facility or decommissioning, and are even confused about the status of Plum Brook Station itself i.e. whether PBS is active or not. In addition, there is some confusion between NASA's decommissioning of the Reactor Facility and the clean up of the former ordnance site, which is also physically located at PBS but is the responsibility of the U.S. Army Corps of Engineers (USACE). The lack of awareness and knowledge levels does not seem to be limited to those who live further from PBS nor is it limited to those who have moved into the area within the past ten or fifteen years as was originally assumed. To address this lack of awareness, NASA needs to

continue to provide basic information to the public on the former Reactor Facility and steps involved in decommissioning and extend the distribution of this type of information. In addition, NASA needs to (re)familiarize the community with the vital work that is still being done at Plum Brook Station and to enhance overall relations with the surrounding communities. Finally, NASA needs to continue to differentiate decommissioning activities from that of the USACE ordnance site clean up.

News Releases

Purpose

The media is an established communication channel for information on various issues that quickly disseminates information to large groups of people. National surveys consistently cite the news media as the public's primary source of information. Interviews and focus groups with area residents support this trend in the area around Plum Brook Station. News releases may be used to announce key steps in the decommissioning process. For example, NASA issued releases when the Decommissioning Plan was submitted to the Nuclear Regulatory Commission (NRC) in 1999 and when the plan was approved in 2002. News releases are also used to announce upcoming meetings, events or activities such as the annual Community Information Sessions or quarterly Community Workgroup meetings.

Description

NASA Glenn's office of Community and Media Relations is responsible for all contact with the news media. News releases will be disseminated to the list of media contacts contained in Appendix C by Sally Harrington, Public Affairs Specialist, at NASA Glenn's Community and Media Relations Office. The primary print media include the Sandusky Register, Norwalk Reflector, (Lorain) Morning Journal, Bellevue Gazette, Elyria Chronicle Telegram (which has a Sandusky bureau) ~ all are daily papers ~ as well as the Cleveland Plain Dealer and Toledo Blade (neither has a Sandusky bureau, but both deliver papers to subscribers there). Those interviewed also recommended outreach to the daily newspaper, the Bellevue Gazette, as well as several weekly papers, including the Vermilion Photojournal and Fremont News-Messenger. In addition, it was recommended by all those interviewed that local radio and cable TV stations be utilized to get information to the public.

Consistent with focus group findings that many people listen to their radios at home, at work, and while commuting, this list will include radio stations that provide local news coverage, including WLEC-AM, WCPZ-FM and WMJK-FM (Sandusky), WKFM-FM (Huron), WGGN (Castalia) and WCPN-FM (Cleveland) as well as WLKR-FM and WVAC-AM (Norwalk). A few local stations have call-in shows or public interest programs, most notably WLEC-AM and WVAC-AM. Having NASA staff participate in these shows is another effective channel for increasing awareness and educating the public. For example, NASA Decommissioning Project Manager Tim Polich, and Senior Project Engineer Keith Peacock, were interviewed live on WLKR in August 2002 and WLEC in September 2002. NASA Glenn Public Information Specialist Sally Harrington was interviewed on WLEC in September 2000. Having NASA staff participate in these shows is another effective channel for increasing awareness and educating the public about Decommissioning.

Media Relations

Purpose

A media relations program is intended to build relationships with members of the media as a source and resource of information, news, features and possibly commentary to the press, in the service of keeping the public (the media's readers, viewers, listeners) informed and current. It differs from one-way

outreach such as releases and advisories in that it is interactive, allowing give and take to engage the media in the story and the context in which it unfolds. It differs from seeking publicity in that it acknowledges NASA's role as a resource, and the media's right to find local angles that are of interest to its audiences, as well as adding transparency to the process to build credibility and trust.

Description

Phone calls, written material and occasional briefings are requested with the media to present resources to help tell the story of decommissioning. NASA's Community and Media Relations Office has established contacts with the local media and in some instances has met with them to provide background materials (early fact sheets, copies of the informational displays, etc). Further such meetings might provide back issues of the newsletter, an updated postcard magnet), contact lists of NASA, NASA PBS and Community Workgroup experts, independent (unaffiliated) experts who can address the science, health and safety issues; and Frequently Asked Questions about decommissioning, based on questions from focus groups and interviews.

Subsequently, media contacts are updated on a regular basis through the mailing list, and personally invited to attend key meetings and events (e.g., Community Workgroup meeting, Community Information Session, tours, school programs, etc.), whether they choose to cover them or not.

Community Response to Date

Interviewees noted the importance of using the news media more fully in getting the decommissioning story out, and the focus group participants reinforced it strenuously wanting a variety of news coverage including updates, interviews, site visits, feature stories of Workgroup members, etc. Further, Community Workgroup members also expressed a willingness to write newspaper articles, op ends, stories, on their perceptions of decommissioning and the role of the Community Workgroup.

Media Advisories

Purpose

A media advisory or so-called "Note to Editors" is intended as a complement to a press release and other materials that may be sent to the print and electronic media. They can be particularly useful in serving as reminders of specific events, such as a Community Information Session or an Open House. They are generally issued close to the date of event and are sometimes followed by the issuance of press releases.

Description

NASA sends notes to editors/media advisory to both newspapers and radio stations close to the date of a Community Information Session, an Open House or other community relation's event. It will contain the date, location and time of an event, a brief description of what the event entails and a brief mention of the sponsoring organization. While it may be issued a day or two before the event, the media advisory can serve as a complement to a well-written press release, which provides more detail on an event and generally includes quotes from one or more participants in an event or program.

Public Service Announcements

Purpose

Public service announcements (PSA's), not unlike media advisories, help bring radio, television and newspaper attention to non-profit and government programs, themes and events. There is frequently intense competition for PSA time among a variety of organizations. PSA's can be effective in reminding

listeners and the community about community relations events and other aspects of decommissioning.

Description

PSA's are short messages - generally 20 or 30 seconds in length or under 100 words - that are written by the sponsoring organization as a service to the public. They may address an ongoing program, such as highway safety, or identify specific meetings or events as part of a theme or program. PSA's will prove useful in reminding listeners and the community of events such as Open Houses, Community Information Sessions or Community Workgroup meetings. They are also effective at driving traffic to a Web site or Information Line through repetition and recall. NASA has established contact and relationships with each area radio station's Public Service Director.

Maximum impact of a public service announcement is developed through a PSA campaign, integrating several recurring messages under a single theme, which boosts recall. For example, a theme of *We Want You To Know* or *Focus on Safety* could integrate announcements about Community Information Sessions, an Information Line or website posting of scheduled events, etc., and in the course of a campaign, the public begins to associate that message with NASA with high credibility and ongoing commitment to the community.

Community Response to Date

Feedback from those who have attended community events indicate that the PSA's are an effective tool. Written PSA's can be sent to daily and community newspapers as well as local organizational newsletters, church bulletins and community bulletin boards. Feedback from community focus groups suggest that listings in the calendar section of newspapers are not effective while participants at community relations events suggests that PSA's to local organizations' newsletters or bulletin boards may help to reach otherwise unaware audiences.

In addition to PSA's on the radio, both interviewees and focus group members reinforced targeting area cable television outlets, which generally have Community Bulletin Boards and may post messages with specific word lengths or even cover Decommissioning related meetings and events.

Direct Mailings

Purpose

Throughout the decommissioning process, there are specific times when direct mailings may be appropriate to inform individuals about the project's status and community relations activities. The purpose of these mailings is to directly inform potentially interested individuals and groups of NASA's plans for decommissioning the Reactor Facility and to provide brief project updates, or specific information related to health and safety or environmental concerns. Direct mailed material also always provides people with contacts for more information.

Description

Direct mailings can be used to reach a broad audience. Direct mailings may include fact sheets or specific project updates to key stakeholders such as local officials, identified community leaders and nearby residents. Direct mailings may also include announcements of community relations activities, such as Community Open Houses/Tours, Community Information Sessions, or announcement of the availability of the Decommissioning Website or telephone information line such as the magnet postcards mailed out in 2001. NASA developed an initial mailing list in 1999 and continually updates and

expands that list of interested members of the public about decommissioning activities on an ongoing basis. The current mailing list consists of over 1400 individuals, officials and community organizations. Members of the public are given the opportunity to be added to the mailing list at any Decommissioning community related event and by calling the telephone information line (see below).

Community Response to Date

While some focus group participants on the NASA PBS mailing list did not recall getting information, several did, and recognized it as being from NASA and about decommissioning from the logo and recurring colors and layout. Consistent with the response of those interviewed, focus group participants said they are attentive to mail but suggested they would be more inclined to open mail with the NASA logo and a message telling them what's inside and why it's relevant.

Exhibits

Purpose

The purpose of an exhibit is to increase community awareness of Plum Brook Station and the Decommissioning of the Reactor Facility, and to illustrate various technical aspects associated with the decommissioning process. Exhibits can also be used to talk about NASA's commitment to pollution prevention or other environmental, health and safety topics. Primarily a one-way communication tool, the exhibits should also allow for feedback and input from the public by providing a phone number to call with comments and questions.

Description

Stand alone exhibits or informational displays can be created to elaborate on information specific to the technical aspects and milestones of the decommissioning process, including a description of the decommissioning process, how material will be removed and/or decontaminated, and how radiation is monitored, safely transported, etc. Associated with each exhibit, as space allows, can be additional materials to draw attention and provide information. Exhibits can be done as stand alone events or may be part of larger community events such as the annual Community Information Sessions or the exhibit Plum Brook Station provided at the Sandusky Mall in 1999. Participants in the focus groups recalled seeing an exhibit on the ordnance cleanup at the Sandusky Mall, which seemed to be positively received. The locations for possible exhibits in the area surrounding Plum Brook Station include: Perkins High School; the Firelands College of Bowling Green State University (a.k.a. BGSU Firelands) the State Theatre; the Sandusky Mall, local public libraries (in the cities of Sandusky and Huron, the villages of Milan and Berlin, the Castalia branch of the Sandusky Library and the public library in Vermilion), the Oxford Township Hall, the EHOVE Career Center and the North Coast Marketplace, both in Milan Township, and the County Office Building, located in Perkins Township. Exhibits may also be used to support other informational activities, such as Community Information Sessions or Tours. Portions of exhibits may also be appropriate for NASA speakers to use at briefings.

Finally, exhibits may be used as part of educational or outreach programs with area schools either passively or as part of a broader outreach effort for decommissioning or other science/environmental related issues.

5.3 Ways to Inform and Educate

A primary objective of this Community Relations Plan is to ensure that people have continuous and ready access to information about the decommissioning process and cleanup activities. Because of the technical nature of these activities, it will be important to provide sufficient educational materials, and forums for people to ask questions and have their concerns addressed. Further, people have varying needs for how much information they want and different styles (e.g. more narrative or straightforward “factual” approaches). A variety of different techniques can be used to inform and educate. Providing information on an ongoing basis will ensure that NASA Glenn maintains strong, positive relations with the community, while maintaining trust and credibility. Many of the techniques used to increase awareness (see section 5.2), are also appropriate vehicles for informing and educating the community.

Fact Sheets

Purpose

Fact sheets are appropriate to use to help inform and educate the public about various technical aspects of decommissioning and the status of the decommissioning process. Fact Sheets are a relatively easy and concise way of providing information on particular topics to a broad audience with some degree of detail.

Description

Fact sheets usually consist of a brief narrative summary, in plain English, of technical information needed to understand activities associated with decommissioning the former Reactor Facility. To date, nine fact sheets exist (see Section 3.2 for a complete listing). The first two fact sheets – We Want You To Know (An Overview of the Decommissioning Process) and The History of Plum Brook Station – were given out to the individuals interviewed as part of preparing this Community Relations Plan and one was also used in the recent focus groups. Fact sheets will continue to be developed at key milestones in the decommissioning process or for issues/subjects identified as important by community members. For example, fact sheets on the basics of radiation and radioactivity might be appropriate given more recent questions raised in the community focus groups. Similar to a fact sheet, “updates” will also be prepared periodically on the status of decommissioning activities. These “updates” would include a brief narrative and pictures of ongoing work. To date, one update on pre-decommissioning activities has been prepared.

It is important that all organizations and persons who ask questions about decommissioning receive the same, factual information. Fact sheets should be kept at Plum Brook Station, to have on hand for employees, resident agency staff, and contractors who work at PBS or are part of the Decommissioning on site project team to provide them with an accurate source of information and enable them to answer questions that they might receive from other community members. Copies of fact sheets are also distributed to area libraries, including those located in Sandusky, Huron, Castalia, Milan, Vermilion and Berlin. Fact sheets can also be provided (via direct mail) to local officials and community leaders. To date, copies have been distributed at community relations events when NASA speakers give briefings on the project. A wider distribution of fact sheets should be considered now that NASA is actively engaged in decommissioning. This distribution might include giving 10 – 20 copies of each new fact sheet to Community Workgroup members for them to distribute. Copies can also be made available at the Sandusky and Huron City Halls, Township Halls in Perkins, Huron, Oxford, Groton and Vermilion and county office buildings in Perkins Township and Huron. Additional copies can be given to local organizations willing to distribute them, including Erie MetroParks in Huron, the Men’s Senior Fellowship in Sandusky, the Erie County Chamber of Commerce (Sandusky), the Huron Chamber of

Commerce and the Sandusky and Huron Rotary Clubs. The NASA Glenn Research Center in Cleveland will also have copies of fact sheets to distribute.

Community Response to Date

In the focus groups, participants found the fact sheets easy to read and understand, with the right level of information, inviting them to learn more without overwhelming them. Focus group participants listed several topics and questions that might be suitable for new fact sheets. NASA will continue to develop fact sheets on the project and consider ways to broaden the dissemination of those materials to a wider audience.

Website

Purpose

With Internet access available for NASA Glenn and Plum Brook Station (PBS) employees, as well as a large portion of the general public, the purpose of a dedicated Website is to inform employees, the public and the press about decommissioning-related activities. The Website, launched in August 2000 should continue to provide an ongoing source of information on the decommissioning project, including technical, health and safety and other information of interest to local community members.

Description

The Website is currently part of NASA Glenn Research Center's existing Home page, with a link to the Plum Brook Station Website. Currently, the Website contains general information regarding the history of the Reactor Facility, information on the decommissioning process as well as updated progress reports on the status of decommissioning and community outreach events. A link for Frequently Asked Questions and Answers is provided along with copies of all project fact sheets, newsletters, and some technical documents. The Website also contains a video on the Decommissioning of the Reactor Facility. While NASA is the primary source of the information contained on the Website, there are also several links to other organizations that have some role in the decommissioning project or provides for a third party independent source of information including a list of Community Workgroup members and their contact information. NASA established the Website early on in the community relations process once public awareness of decommissioning was initially raised. Once awareness exists, people are in the information-seeking phase and may want to obtain information - geared to their own particular interests - at their own pace. Information provided on a Website is available to the public 24 hours a day, seven days a week. It also serves as a means of providing feedback on the community's interest in decommissioning, by tracking the number of "hits", or visits to the site. Requests for further information could also be done electronically. The Website is routinely updated throughout the decommissioning process.

Community Response to Date

A number of employees and community leaders who were interviewed during development of the initial CRP in 1999 suggested that information provided via the Internet would be a positive way to increase awareness, and get information to a broad cross section of the community. Focus group respondents were very positive about the Website, because it allows them to get information when they want and is convenient (accessible at any hour) and interactive (they can direct and control what they learn and how much). Suggestions for additional content not currently available on the Website include the ability to sign onto the mailing list from the site; ability to ask a question and have it answered by return e-mail within a specific period of time; and a calendar updated twice a month with scheduled public events and

on-site activities. As of mid-November 2002, the Website's Home Page had received more than 3,900 visitor hits since its inception – including 2687 hits through the first 10 months of 2002.

Community Information Sessions

Purpose

Community Information Sessions are an alternative to traditional public meetings designed to facilitate two-way dialogue, so that information is more accessible to the public and immediate feedback can be received. Community Information Sessions (CIS) are intended to be interactive, allowing people to obtain information at their own pace while maximizing the use of visual communication techniques. Since people process information differently, the use of both verbal and visual information allows for more effective presentation of complex, technical information. Most importantly, these sessions provide an opportunity for people to ask questions and express concerns directly to those who are most knowledgeable, and do so in a comfortable setting.

Description

Community Information Sessions are informal and interactive meetings that can be held in convenient public locations and/or at Plum Brook Station. The community interviews and focus groups demonstrate that different individuals may want different levels of detail about NASA's plan for decommissioning. For some groups, more in-depth technical presentations may be appropriate. However, for the broader community, technical information can be more easily presented and explained visually, using a series of displays and having staff available to answer questions - as opposed to giving detailed presentations. The CIS consists of six to eight text and graphic displays, where the information is presented in an interesting and visually appealing fashion. Each display consists of three or four-poster boards that together relate to a particular topic. By reviewing the displays and moving from location to location, participants learn "the story" and also have a chance to interact one-on-one with NASA Decommissioning staff and the other experts on the Decommissioning Team. A table with written material, fact sheets, newsletters, etc. is also made available at each Information Session.

The flexible format of the Community Information Session also allows for a collaborative effort with regulatory agencies and/or other relevant groups should a particular organization express interest in the project or local responders so that the public can receive information from a number of credible, independent sources. In focus groups, participants noted that while NASA has high credibility, the presence of independent, unaffiliated experts add to the level of trust in the process and in NASA's openness. The types of expertise and individuals identified were consistent with the membership of the Community Workgroup such as independent scientists, public health officials or science teachers from area colleges and schools, who could provide a different level of information in response to community questions.

Community Information Sessions allow for personal contact between NASA and interested community members, and offer a more effective way of addressing people's feelings and concerns. The primary character of an Information Session is a free-flowing, two-way dialogue. People can come whenever they wish, stay as long or short a time as they wish, and address whatever topics interest them in whatever order they choose. As a result, the staff talks with a larger number and broader cross section of the population than happens in the typical public meeting. The quality of the exchanges is usually much higher and participants can pose multiple questions, cutting down on the frustrations often experienced in a public meeting setting. In many cases, questions and concerns can not only be raised but also actually

resolved, unlike what usually occurs in a public meeting. People who may feel intimidated to ask questions in a formal public meeting often feel more comfortable in the Community Information Session format. The CIS also provides NASA with an opportunity to educate attendees on topics previously identified as areas for misunderstanding or of concern. For example, NASA should be prepared to differentiate decommissioning activities from other nuclear, environmental and community health concerns, such as the Davis-Besse nuclear power plant's leak, the ordnance clean up by the U.S. Army Corps of Engineers, and what might be stored in the bunkers at the PBS site.

The physical setup of these sessions also allows for the involvement of outside sources/organizations and an opportunity for all views to be presented. All of these aspects help to build trust and credibility.

The first Community/Public Information Session was held in late October 1999, and they have been held every fall since, with attendance varying from 30-50 people. Displays at the first CIS were based on the questions and information needs identified in the employee/retiree and community leader interviews. The most recent CIS in October 2002 reflected more recent questions and concerns gathered from the focus groups and attendees at previous Workgroup meetings or previous CIS'. To date, the CIS's have been held at the Perkins High School or Firelands College. The EHOVE (Erie, Huron, Oxford Vocational Education) School in Milan may also be an appropriate location. To date, sessions have been held on a weeknight but could also be held on a weekend, pending community preferences, and typically last from two to four hours. Additional sessions can be held during decommissioning, pending interest and the activities in progress, as a means of providing "updates". A final Community Information Session and tour (see below) would also be appropriate at the completion of decommissioning and the final radiological survey.

Community Response to Date

To date, feedback/ evaluation of the CIS by those who attend has generally been very positive. For example, fully half of attendees who completed evaluation forms after the 2002 Community Information Session said they knew nothing about the project before they attended, all felt they had learned something about Decommissioning; and more than 60% felt they now knew a lot. There was also almost unanimous agreement that NASA staff had listened carefully to their questions and clearly answered them.

While only a few of the people in the focus groups had attended a community meeting, many indicated interest, in going to future sessions and would be most responsive to a newspaper story or a broadcast reminder on the event.

Open House/Tour of Plum Brook Station

Purpose

Historically, tours of Plum Brook Station were conducted for the general public. A majority of the employee/retirees and community leaders interviewed felt that the community looked favorably upon NASA and Plum Brook Station for inviting them "behind the fence" into their facility. In addition, the employees apparently got a lot of satisfaction from hosting such an event. At the start of the Decommissioning planning process, an Open House/Tour was recommended for the Media, followed by one for the public. The purpose of the initial Open House/Tour and any subsequent ones is to (re) familiarize community members with NASA Plum Brook Station and the active work that is ongoing,

and to provide an opportunity for the public to learn more about decommissioning of the Reactor Facility.

Description

An Open House/Tour was held in October 1999 at the Plum Brook Station administration building. It included brief presentations by Bob Kozar, the Plum Brook Station Facility Manager, on current and planned activities at Plum Brook Station including decommissioning. Displays (see above) were used as the primary medium for conveying information about NASA's plans for decommissioning the former Reactor Facility. NASA staff, including the Decommissioning Project Manager, Tim Polich, and other experts was stationed at displays to answer questions on decommissioning and other PBS staff discussed ongoing activities at NASA PBS.

Attendees had the opportunity to go on a "windshield" tour of the Reactor Facility on buses or driving their own vehicle and also see other active test facilities at Plum Brook Station. At the completion of the bus tours, attendees can go back to the exhibits, which remain open and staffed all day. Educational activities for children were also integrated into the Open House.

Additional Open Houses/Tours may be held periodically during decommissioning and at the completion of decommissioning activities. Tours are often extremely useful during or after construction (or deconstruction in this case) activities, so that citizens can see activities in progress. Obviously, the need for stringent public and worker health safeguards makes free access to the decommissioning site impossible. Further, increased security requirements following the events of 9-11 have limited the feasibility of conducting public tours. Alternately, limited groups of officials, media or Community Workgroup members, may be given an opportunity to directly view site activities. In other decommissioning projects, and at many hazardous waste site clean-ups, providing an opportunity to view activities can remove some of the mystique around the process. If carefully structured and planned, this can occur without hindering site activities or compromising health and safety. Tours of the Reactor Facility were conducted for Decommissioning Workgroup members in April 2002 and in June 2002 for the media. The intent of these specific tours was to give people an inside look at the Reactor Facility and the safeguards in place to serve as a visual backdrop for ongoing information on decommissioning before work activities would preclude entry to the facility.

Open House/Tours typically attract a larger number of people, and a broader cross-section of the community than typical public meetings or other community relations events. As in the past, any future Open House/Tours will be held on a day convenient for the community and span a sufficient timeframe to allow for the greatest participation and attendance. Visitors will be able to stay for as long, or short, a time as they like. While the Open House/Tours will be free to enter, visitors will be asked to give feedback to get out by completing a brief evaluation form (see section 5.5). While it is likely that the potential for general public tours of the Reactor Facility will be precluded for safety reasons, to the extent possible, tours of Plum Brook Station for both the general public and specific groups – e.g. educational groups – are recommended. Further, pending security restrictions, it would be extremely beneficial to have a future Community Information Session at the Plum Brook Station administration building. Finally, once decommissioning activities are near complete and before the final site survey – additional tours for Workgroup members, the media and local interested officials are highly recommended.

Community Response to Date

A small number of participants in the focus groups had taken the first tour; one or two thought they were an annual event, and several others thought they should be an annual event; as their awareness grew they would like to learn more about the site. Since the terrorist attacks on Sept 11, 2001, the public is more security-conscious; notwithstanding they liked the idea of NASA opening its doors as a demonstration of good faith and safety on the site. The results of the evaluations conducted at the 1999 Open House/Tour, which had over 4300 attendees, were all extremely positive.

Videotape Presentation

Purpose

Videotape provides an “as it happened” record of an event and is also useful in presenting the history of a particular topic. Videos can be particularly useful in documenting community relations efforts such as an Open House or a Community/Public Information Session. A video presentation is frequently an effective means of presenting information, in that it tends to engage an audience at a level that a fact sheet or speaker may not achieve.

Description

NASA created a project videotape presentation in 2000, which included footage of the Open House/Tour and Community Information Sessions, held in 1999. That videotape provides some history on PBS and the Reactor Facility and outlines the general steps involved in decommissioning. The videotape can be used as part of NASA presentations, shown continuously at Community Information Sessions or special exhibits, and can be accessed via the Website.

It is recommended that NASA update/create a new video periodically to visually reinforce key messages such as seeing the methods used to monitor the Reactor Facility and the work environment and prevent the release of airborne materials. Members of the Community Workgroup might be included to offer their perspectives on the process, their first hand observations, and commentary on NASA’s efforts to keep the community informed. Seeing familiar faces can often engage the viewer more readily than a scripted piece. A videotape of work that is progressing on decommissioning would also be a useful tool in any subsequent presentations or speaking engagements. Given the technical nature of the work and the lack of public access to the site, a videotape presentation is an effective way to provide a “you are there” feel in support of the messages conveyed by NASA staff. Videotape as a medium can be used as a stand-alone tool or to stimulate feedback on community reaction to the information presented; and create opportunities for interactions with NASA staff. Copies of the videotape might also be provided to Community Workgroup members to enable them to more accurately convey the progress of work and achieve the third party credibility of this important group. Workgroup members might be more inclined to convey decommissioning related material with stand-alone material available.

NASA is also in the process of finalizing a one-hour documentary video on the history of the Reactor Facility. The video features interviews with former Reactor Facility workers, archival photographs from when the facility was operational and footage from the Decommissioning Project. NASA plans to approach educational cable networks, perhaps including the History Channel about airing the video and will eventually make it available to schools and community organizations, having engaged in initial discussion with Perkins High School. NASA is also planning to turn the feature video into an interactive DVD for use in a variety of classrooms.

Community Response to Date

Several interviewees suggested having videos as a component of any public outreach efforts. They suggested not only the possibility of documenting a Community Information Session, but also making a tape that would depict both the key points of the decommissioning process and the history of achievements at Plum Brook Station. NASA may be able to persuade the local cable television access channel to air an updated project video as it sees fit. In addition, participants in the focus groups (August 2002) suggested the video, along with fact sheets and publications, be used as part of the Community Information Sessions, in briefings, and by speakers addressing local community civic, fraternal, and church groups.

Briefings/Presentations to Local Officials

Purpose

Community relations activities should allow for a smooth flow of information from NASA Glenn and Plum Brook Station staff to local officials and government agencies. The purpose of briefings is for NASA to directly provide public officials with information about decommissioning activities and for officials to have their concerns addressed. This two-way dialogue ensures that officials are kept up to date on the site to facilitate their ability to answer questions from their constituents and serve as intermediaries with the general public.

Description

Prior to community interviews, submittal of the Decommissioning Plan to the NRC, and throughout the decommissioning process, local officials will be informed of activities related to decommissioning. In addition, at key decision points or upon request, formal presentations will be made to public officials. A number of briefings will enable officials to answer questions from their constituents as the information is disseminated to the public. Community leader and employee interviews identified the need to keep a number of elected officials informed of the decommissioning process. The list of officials is included in Appendix D. Because of the duration of the decommissioning project, multiple briefings to multiple organizations and groups may be necessary.

To date, a number of officials in Perkins Township, Sandusky, Huron and Erie County have been briefed about NASA's plans for decommissioning. Officials have also received project mailings. Additional briefings to officials should be considered now that decommissioning activities are underway and especially during segmentation activities.

Community Response to Date

Focus group participants suggest that briefings are an excellent opportunity to increase awareness of and visibility for members of the Community Workgroup, who are perceived as objective, accessible and highly credible people. Accompany NASA speakers to address civic organizations. When the results of the focus groups were presented to Community Workgroup members they reinforced their willingness to accompany NASA staff in making presentations.

Public Meetings

Purpose

Typically, regulatory agencies hold formal public meetings at key points in any regulatory process, such as permitting or, in the case of Plum Brook Station, the decommissioning process. NRC regulations and guidance provide two opportunities for public meetings and comment periods held by the agency. These meetings are typically held after the NRC receives a Post-Shutdown Decommissioning Activities Report

(PSDAR) and after the NRC receives a License Termination Plan. The NRC regulations do not require public meetings for the decommissioning of non-power reactors such as the reactor facility at Plum Brook Station, if the licensee will achieve unrestricted release. Regardless of the requirement for the NRC to hold public meetings, they do provide an opportunity to increase awareness and dialogue with the community.

Description

Public meetings typically involve agency staff (NASA, NRC, Army Corps of Engineers, Ohio Department of Health and Ohio Environmental Protection Agency) and other independent experts who are available to present information and answer questions. Citizens can ask questions or offer comments on proposed actions, such as the recommended alternative or certain aspects of the decommissioning plan. If used, public meetings should be structured to encourage discussion and receive citizen feedback.

Public meetings allow the community to express concerns to NASA and the other agencies involved in the decommissioning process. Although the meetings may not allow for individualized attention, many people can be reached at one time. Large public meetings held only at critical junctures can be problematic if the public has not been previously informed. Holding a Community Information Session (see previous section) prior to any public meeting allows for a better exchange of information between NASA and the community and encourages a resolution of any issues. Because small group meetings or Community Information Sessions are more effective, formal public meetings are not planned for at this time. However, smaller public meetings may be appropriate now that decommissioning activities have begun. For example, a small public meeting(s) with nearby residents was held in April 2002 following NRC approval of the Decommissioning Plan. Pending interest, additional type meetings could be scheduled.

Coordination with Existing Groups/Publications

Purpose

A number of community based organizations and groups were initially identified during the interview process and NASA's contact with existing organizations has been ongoing and expanding since 1999. It is important that the public have access to various credible sources of information, which may differ within and among neighboring communities. The purpose of informing and coordinating with existing community groups or organizations is to provide a vehicle for informing the broader community about decommissioning activities using established information channels.

Description

Coordination with local groups may include formal or informal presentations to clubs, businesses, civic or church organizations, schools or other community groups. Community sponsored events and organizations represent a natural way to reach large and diverse communities - either as a way to publicize community relations activities or provide a forum for presenting information. Understood to be independent, the groups may also point out other information needs to better inform and respond to community concerns.

To date, eight organizations have requested and been given presentations on decommissioning the Reactor Facility. With the start of active decommissioning, NASA should expand use of this method of outreach. Ideally, presentations are made at the groups' regularly scheduled meetings. There are a number of organizations that are part of community life - in business, civic, service, environmental,

educational and spiritual areas. These organizations/groups are listed in Appendix E. Key organizations and their areas of interest are as follows:

Business

The Erie County and Huron Chambers of Commerce and the Greater Erie County Marketing Group and the Mainstreets Association.

Service/Civic

The Rotary Club of Sandusky; The Huron Rotary Club; the Exchange Club of Sandusky; The Kiwanis Clubs of Sandusky and Berlin; the Lions Club of Sandusky; the Huron Lions Club; the Zonta Club; North Central League of Women Voters (Sandusky) and Huron League of Women Voters; the Elks Club; the Sandusky Area Safety Council; the Men's Senior Fellowship (Sandusky); the Saint Peter's Knights of Columbus (Huron); the Sandusky chapter of the NAACP; the American Legion; Veterans of Foreign Wars; Amvets, the LEADS Program, Habitat for Humanity; the Erie County Senior Center; and the Firelands Red Cross Chapter .

Environmental

Firelands Audubon Society; Erie Metro Parks; the Erie Huron Community Action Commission Recycling Program; the Izaak Walton League; the Erie County Conservation League; the Four County Conservation Club; the 4H Club.

Religious

The Erie County Ministerial Association; the Norwalk Alliance Church; Saint Stephen's AME Church (Sandusky); Saint Peter's Catholic Church (Huron); Saint John's United Church of Christ (Milan); Emmanuel Temple Pentecostal Church (Sandusky); the Ebenezer Baptist Church (Sandusky); Saint Mary's and Holy Angels Catholic Churches (Sandusky); Saint Paul's Catholic Church (Norwalk) and Saint John's Lutheran Church (Perkins).

School Related

The Parent Teacher Organizations at the Furry Primary, Meadowlawn Intermediate and Briar Middle Schools (all in Perkins Township) and the Monroe and Venice Heights Elementary Schools (both in Sandusky); the American Association of Physics Teachers; American Nuclear Society; and the Bowling Green State University-Firelands College Science Department.

In addition to giving presentations, putting information in existing organizations' own publications ensures an attentive audience and avoids information "overload", or duplication, to interested members of the public. Based on the interviews, a number of specific groups with suitable publications or established communication networks were identified. Many expressed a willingness to publish information about NASA's decommissioning activities. Providing information to existing community groups/organization newsletters can be an effective means of providing information and updates on the decommissioning process to the broader community, or to announce upcoming community relations events. NASA will provide copies of fact sheets and announcements of upcoming community relations events to identified groups and organizations for use in their publications throughout the decommissioning process.

Some of the individuals initially interviewed have volunteered to assist in disseminating information to the community about NASA Plum Brook Station and the decommissioning process. For example, one

interviewee has offered to write about the unique natural landscape at Plum Brook Station for a newsletter or on a NASA Website. Further, Community Workgroup members expressed willingness to potentially “host” community events at organizations they are affiliated with and invite the community and NASA staff.

Community Information Bank

Purpose

A Community Information Bank is a repository of information about a project such as decommissioning. It contains an entire file on a project - including all pertinent documents - and is generally located in an accessible public place, such as a library, city or town hall, public health office or other community building. The Information Bank established for decommissioning the former Reactor Facility will include - but be not limited to - the Community Relations Plan, Decommissioning Plan, fact sheets, copies of press releases, summaries of monitoring data and other information on the Reactor Facility and decommissioning.

Description

A convenient location such as the BGSU Firelands library will enable the public to have access to all public records pertaining to decommissioning, give them a history of Plum Brook Station and the decommissioning process and provide access to monitoring information at the site. It also keeps the public updated on all meetings and other activities during the course of the project. The Information Bank was established in 1999 prior to plan submittal to the NRC, and will continue to be updated and maintained throughout the decommissioning process. A listing of all materials available at the Information Bank has been developed and regularly maintained. This listing can be put on the Website.

Newsletter

Purpose

The purpose of a newsletter is to provide regular information about an activity to a broad audience. Newsletters for specific projects, such as decommissioning, are particularly appropriate when activities are carried out over long periods of time. This is the case in NASA’s plan to decommission the former Reactor Facility.

Description

Newsletters are typically four to eight pages long and contain information on a variety of topics. Depending on the frequency of activity, newsletters can be sent out bi-monthly or quarterly. A quarterly newsletter was created in October 2001, and has been distributed to people on the NASA PBS mailing list and posted on the Website. It is designed to be visually appealing and interesting. Topics include technical aspects associated with decommissioning, pictures of work as it progresses, project status updates, and profiles of Community Workgroup members. It might also include responses to frequently asked questions and articles by Workgroup members.

NASA Glenn Research Center has an existing 12-page newsletter, Aerospace Frontiers, which is distributed monthly to NASA employees and a broader external audience. Articles on the decommissioning of the Reactor Facility have been and will continue to be periodically included in this newsletter.

Community Response to Date

Participants in the focus groups held August 2002 were in favor of the newsletters: they liked the layout, content, familiar format, and each took several with them at the end of the groups.

Outreach to Schools

Purpose

Communicating and providing outreach to area schools is an effective way of educating important segments of the community and, in particular, getting information to parents of school age children who are often a more concerned group. The purpose of outreach to schools is to enhance NASA's existing relationship with the surrounding community; and, in particular, to educate school age children on science and environmental topics related to decommissioning. Providing outreach to area schools will also be used to inform students and their families about community relations activities.

Description

There are various methods available for educating school age children and providing outreach to area schools. The NASA Glenn Research Center already has an active education and outreach program, and sponsors various activities for educators and school age children. Historically, NASA Plum Brook Station has also sponsored tours and lectures for area science classes, and supported other educational activities. As the public does not differentiate between NASA and NASA PBS, outreach to schools also offers a good opportunity to integrate the decommissioning story into other NASA educational outreach activities on physics, flight, general science and especially the environment.

Programs and outreach to area schools can be used to educate and inform various segments of the community about decommissioning. Multiple opportunities exist for reaching out to school age children, although the effectiveness of such programs may vary. Because of resource restraints, NASA needs to target educational outreach activities. For example, while presentations on the topic of decommissioning would most easily be understood by high school students, this group would not be as likely to share its experiences - and handout materials to parents - as would elementary/grammar school students in grades four, five and six. Interviews with six community members involved with students ranging from grammar school through college suggested that children in grades four, five and six would be the most appropriate audience for NASA decommissioning related topics, and would provide an ideal conduit to their parents. Ideally, any information on decommissioning might be paired with broader science or environmental material, which is likely to more readily capture the attention of the audience.

The Perkins Public School department has a "Gifted and Talented" program for grades three through six, and students in these classes have, as a group, studied NASA related topics and visited the NASA Glenn Research Center. These students have also undertaken independent study projects with NASA related themes, and one teacher expressed openness to having classroom discussion of decommissioning related information. Students in grades four, five and six who are not in the "Gifted and Talented" program also study science and the environment, and could be targeted for guest speakers on decommissioning. The concept of having outside speakers meet with teachers and their students has been successfully proven by other groups, including the Erie Huron Community Action Commission, which has instituted a very successful solid waste recycling education program within the Perkins Schools.

Educators who were interviewed stressed that any programs or teaching that touch upon decommissioning would have to be a matter of a teacher's own choosing, but NASA could offer

briefings and workshops for teachers that might encourage their participation. For example, the American Nuclear Society has developed programs and interactive workshops appropriate for grades four, five and six. One successful program it sponsors involves providing teachers with Geiger counters that they can use in class, to give students demonstrations on radioactivity. NASA could host a workshop for teachers and serve as the conduit for making the Geiger counters available to area science teachers.

While grades four, five and six may provide the ideal student audience, opportunities for outreach to older students will also be considered. A teacher in Perkins Township said parents there generally “pick up on students’ activities and courses,” and noted that some students in grades six, seven and eight take independent study courses. The latter may provide another way of working with area students. In addition, several hundred area high school students turn out each year for Physics Day at Cedar Point, a day of both recreation and education. Part of the day involves discussion of scientific issues and NASA Glenn has provided astronauts and other guest speakers for the event on several occasions but the size of the event and its large recreational component has not lent itself to a discussion of decommissioning. A more targeted approach to reaching older students is for NASA to host high school Science Fairs at Plum Brook Station or, at a minimum provide decommissioning information to schools hosting science fairs.

BGSU Firelands currently participates in two programs for educating Perkins High School students through courses offered at the College. Both programs give Perkins students the opportunity to take College level courses and receive college, as well as high school, credits. One interviewee, who formerly taught courses in what is known as the “Tech Prep” program at Firelands, saw value in discussing decommissioning with the class that contains both high school and college students. Other area students also participate in the Post Secondary Options program at Firelands - again mixing high school and college students in many classes - thus providing NASA with another opportunity to educate students about decommissioning related topics. In addition to opportunities that focus directly on decommissioning, both interviewees, focus group participants and Community Workgroup Members expressed enthusiasm in NASA providing educational opportunities that deal with other general science issues and, in particular, environmental issues. NASA has a mobile exhibit bus, the Aeronautics Environmental Traveling Exhibit (the Aereobus), that seats 17 people at a time and is used for “spreading the word” about the environmental protection aspects of NASA aeronautics and research programs. The bus is equipped with a video theater that focuses on the relevance of the work done at the Glenn Research Center. In fact, the bus was used for the media tour conducted at Plum Brook Station in 1999. Although the bus is geared toward adults, it also shows videos about living in space that are geared for a younger audience. The Aereobus may provide a relatively simple means of offering information on decommissioning such as the project video, new historical documentary of the Reactor Facility or other written materials on decommissioning for school kids to take home to parents including fact sheets and, where relevant, schedules of presentations and meetings. The Aereobus could be offered as a stand-alone event for particular schools or be offered in conjunction with other school-sponsored events that might also reach parents such as science fairs. In addition to only needing limited NASA staff, Community Workgroup members could also participate in such activities.

Regardless of the outreach activity, those interviewed suggested that NASA take a direct approach to teachers, initially obtaining from each school the names of faculty members who teach in science or environmental areas, contacting them and gauging their interest in having a speaker and/or additional information provided to them.

It is also worth noting that, in Perkins Township, there is an active Parent Teachers Association in the two elementary schools. While to date NASA has responded to specific speaker requests, NASA could more proactively offer to brief the local PTA's and make information available to PTA members. In September and October 2002, NASA sent Community Information Session flyers and a note of introduction to Parent Teacher organizations in 16 schools in Perkins Township and Sandusky (and having CIS information included in three school newsletters).

Community Response to Date

Participants in three of the four focus groups spontaneously suggested outreach to the schools, for the same reasons given above. They felt the information was relevant, and a useful way to learn about the issues in their own communities, and suggested NASA speakers in the classroom to discuss decommissioning, field trips to PBS, and newspaper coverage of interaction of NASA staff and school kids. The Decommissioning Community Workgroup has also suggested on several occasions that NASA should have some form of outreach to the schools that can be related to decommissioning activities. NASA has worked closely with the Perkins Public Schools, with both the Superintendent and the High School principal – along with a retired and highly regarded biology teacher from the High School – currently serving as Community Workgroup members. At their quarterly meeting on October 16, 2002 (immediately before the Community Information Session) Workgroup members offered a variety of ways in which its members are willing to become more active in the community, including ways to get the word out on decommissioning via the schools. One member, the principal, offered to provide space for Decommissioning Project information at an upcoming Parent Teacher Organization Fair, scheduled for early March 2003. Others suggested that the Decommissioning Project should utilize the Aereobus and partner with NASA on environmental presentations, including initiatives at Plum Brook Station, such as a Habitat and Species Survey. Other Workgroup members suggested that they could be interviewed for articles in school newsletters and urged producers of the upcoming historical documentary to partner with schools regarding the video's distribution.

While it has been noted that elementary and intermediate school students may provide a more receptive audience (and a more reliable conduit to their parents) than high school students, two Workgroup members did see value in outreach to high school students. One noted that, in the Perkins High School American Government class, students had the option of attending the Community Information Session as one of their three "field trip" requirements during the semester, and several did actively participate in the CIS. Another, substitute science teacher at other area high schools, said his students frequently ask questions about decommissioning when he tells them he is a Workgroup member.

Billboards

Purpose

As the Decommissioning Project becomes more visible in the community, Billboards provide a highly visible method for reinforcing a particular message from NASA, such as reminding people of the Website address or the telephone information line number if they have questions or want more information about schedules, activities, etc.

Description

Billboards are an advertising medium to convey a single thought, such as reinforcement of an Information Line number or driving traffic to the website; they are not, for public safety reasons, a good idea for introducing complex concepts or information. Public safety requires that messages be brief, to the point and used only to reinforce other methods; common sense suggests the best use is to drive home a single message (e.g., We Want You to Know about NASA Plum Brook Station or Decommissioning: call (hotline) or log onto (URL); or Ever Wonder What's Going on at NASA, etc). NASA could either advertise at a single location, such as along Route 250 in Perkins Township or in multiple locations

In most communities billboards are owned and operated by a for-profit company – but in order to maintain their licenses to operate, they usually provide some public service advertising space. Specifically, billboard companies may greatly discount the cost of printing and posting a public service message, and waive the cost of renting the board for a month or two. NASA would need to negotiate the best price, and provide the artwork and copy, and the company would do the rest. Alternatively, NASA could provide a similar type message on smaller roadside signs. These might have the same effect to reinforce messages and drive attention to other information sources but be less likely to cause undue attention or concern.

A number of participants in the focus groups as well as Community Workgroup members have suggested that NASA do some form of billboard.

5.4 Ways to Involve the Community

A primary objective of the Community Relations Plan is to provide opportunity for meaningful public involvement. This Community Relations Plan recognizes NASA Glenn as the responsible government decision maker while recognizing the importance of providing the community with opportunities to express their concerns and comments on the decommissioning plan decisions that may potentially affect their community.

Identified Information Contact

Purpose

National surveys indicate the community is often "frustrated" when it attempts to obtain information from government agencies. Citizens need to be able to ask questions and obtain timely information about decommissioning activities. They also need to know who can provide them with information. The purpose of identifying contacts is to ensure that members of the public and media receive timely responses to their questions and information needs. A timely response will reassure citizens that NASA Glenn and Plum Brook Station staff is listening to their concerns.

Description

A contact person (Sally Harrington, Public Affairs Specialist, Community and Media Relations Office) and phone number will be listed on all fact sheets, media releases, etc. The phone number is staffed 40 hours per week, with an answering machine for off-hours. In addition, Tim Polich, NASA's Decommissioning Project Manager along with Keith Peacock, Senior Project Engineer, and any other NASA designated staff, will serve as the primary technical contacts for questions and to conduct briefings with local officials or other groups who request presentations.

A phone log should be kept to record all calls, questions asked, responses given, etc. If similar questions or concerns are raised during phone calls, the information requested may be suitable for inclusion in fact sheets, on the Website or at upcoming briefings or public meetings.

Telephone Information Line

Purpose

During certain decommissioning activities, nearby residents and local officials may need updates and information more frequently. The purpose of a telephone information line is to provide access to continuously updated and some times real-time information or to remind people of plans already announced.

Description

In July 2001, NASA established a toll-free telephone information line (1-800-260-3838) within Ohio. Callers can access new information – both project updates and recent activities (updated regularly) on the project and an historical overview of the Reactor Facility and its decommissioning. By pressing various options, callers can request that fact sheets be sent to them; (option 2); be added to the project mailing list (option 3) or leave a message, question or comment for members of the Decommissioning Team (option 4). NASA checks mailboxes daily and is committed to providing a prompt response to all inquiries. Interviews with employees/retirees and community leaders stressed that transportation of waste would likely be the major community concern. Community concerns can often be put to rest if people have ready access to information when they need it, so they do not find out about activities second-hand. The telephone information line does not replace other Community Relations activities such as news releases or briefings but it reinforces the information and ensures that those most concerned receive it.

Community Response to Date

Focus group participants liked the idea of an Information Line for decommissioning, especially if their questions could be answered within 24 hours. To date, the telephone line has received. Since January 2002, there have been more than 200 "hits" to the 800 number and initial responses to calls have all been made within 24 hours.

Community Workgroup

Purpose

Groups in which citizens and an agency exchange information, and offer opportunities for input, represent one facet of an overall public participation program designed to inform and involve the stakeholders more directly. Currently, many federal agencies use some form of Community Workgroup or advisory board to provide the public and stakeholders with a direct forum for public involvement. These groups are a means for providing:

- A consistent opportunity for involvement;
- Regular, early, and effective public participation in federal cleanup programs;
- A vehicle for government agencies to learn about citizen questions and concerns; and
- A vehicle by which government agencies can provide information to the community

Description

The Community Workgroup is a two-way communications vehicle for the decommissioning project, involving community leaders as reviewers, advisors, and ambassadors with the public: their role is to bring information out from NASA and bring questions and concerns in from the community. The Workgroup provides a mechanism for the public and other key stakeholders to convey its questions, comments or concerns directly to NASA Glenn, and for NASA Glenn staff to respond directly to the members of the Workgroup. The Community Workgroup is also an important vehicle for incorporating stakeholder concerns directly into NASA's decision-making process.

NASA formed a Decommissioning Community Workgroup in October 1999. The Workgroup consists of 12 to 16 members; residents of Erie County who represent a variety of constituencies including: nearby neighbors of PBS, public safety officials, health and education professionals and members of the area's environmental community. Workgroup members are active in many aspects of community life and are expected to provide project information to their constituents and community members. This includes letting people in the larger community know that they are Workgroup members, encouraging community members' questions and discussions about Decommissioning and urging them to attend and participate in Community Information Sessions, Workgroup meetings and other events. NASA notifies members of meetings, and provides facilitation support including taking and disseminating meeting minutes. Members participate on a strictly volunteer basis

Workgroup meetings have been held quarterly since November 1999 and may be held more frequently as Decommissioning activity increases. The first six meetings (November 1999 – April 2001) were held at BGSU Firelands. Since then, meetings have been held at the EHOVE Career Center in Milan, Perkins High School and at Saint Stephen's AME Church in Sandusky. NASA is committed to holding future meetings at locations throughout Erie County. All meetings are open to the public and are advertised in area newspapers and through PSA's on local radio stations. Since November 1999, anywhere from 5 to 15 members of the public have attended Workgroup meetings, often asking questions of Decommissioning Team members. The meetings are the subject of frequent news coverage in the [Sandusky Register](#).

During decommissioning, the Workgroup can be given in-depth technical briefings on specific activities or aspects of decommissioning. Workgroup members would also be given information on monitoring to "confirm" that site activities are occurring without impacts to public health or the environment. Because the group is of limited size, it's often easier to have a Community Workgroup observe site activities. Several interviewees said they would like to be able to "review NASA's monitoring data for themselves" and "observe site activities" so they could provide reassurance to the public that NASA was "doing its job". The Community Workgroup can provide such a vehicle. As a two-way communications conduit, the Workgroup is not a decision-making body, but provides the responsible government agency (NASA) with a barometer of community concern and a sounding board for proposed actions. Community Workgroups also fulfill a certain "watchdog" function to keep the agency doing the best possible job from the community's viewpoint, as well as technically.

On many occasions since 1999, several Workgroup members expressed interest in a tour of the Reactor Facility. NASA had scheduled a tour for October 2001 but it was postponed for security reasons after 9-11. But NASA was able to re-schedule the tour for April 23, 2002. The tour took Workgroup members through several areas of the Reactor Facility, starting with the Access Control Station, where each member was issued a dosimeter – a personal radiation monitoring device – before visiting the Hot Cell Gallery, the facility’s former Control Room and several other areas. After the tour, Workgroup members noted that their dosimeters had not registered any radiation level at the end of tour, and said the tour had enhanced their understanding of the Decommissioning Project and their ability to share project information with members of the larger community.

Community Response to Date

Participants of the focus groups strongly supported the Community Workgroup, and in fact many knew members of the group and considered them highly credible, trustworthy community leaders and neighbors. Participants suggested that NASA might use members more effectively as speakers (along with NASA staff) in Community Information Sessions, at organizations, in videos and exhibits, with school programs, and in media interviews, features and stories. At the October 16, 2002 meeting, Workgroup members not only provided suggestions on outreach to schools (noted earlier in this section), they also offered to increase their participation in community outreach activities. Members offered to accompany Decommissioning Team members to speaking engagements with community groups and to write op-ed pieces on the project.

Visible Oversight Mechanisms

Purpose

The Reactor Facility always operated safely, and monitoring results confirm that fact. An important part of NASA’s decommissioning plan is the ongoing monitoring during decommissioning and the final radiological survey, which will verify that decommissioning was successfully carried out. Community confidence in onsite activities and the transportation of waste offsite will be a function of trust in NASA to do things safely and to the highest technical quality; and, as several interviewees described, the ability to “not just take NASA or another government agency’s word for it”. The purpose of providing mechanisms for visible oversight is to enable community members and local officials to verify the safety and effectiveness of decommissioning activities for themselves.

Description

There are a variety of ways NASA can afford community members assurances that site activities and transportation related activities will be safe and effective. Two ways described in earlier sections of this CRP include having limited site tours and opportunities for observation during decommissioning. Other possible mechanisms that NASA will consider include making all monitoring data available in accessible community locations such as libraries at Perkins High School and Firelands College, and other locations. Monthly and even weekly summaries of onsite monitoring can be placed in these locations for community review. Copies would also be provided to the Community Workgroup and the information would be accessible via the Decommissioning Website. To the extent that NASA has continuous monitoring systems in place, this information could also be made available at these same locations or at a minimum to appropriate local officials such as the Erie County Board of Health, and Emergency Management Agency, etc.

The decision to implement any such activities, and the appropriate form, would best be determined with citizen input which will be gathered from the community relations activities described in this plan.

5.5 Ways to Evaluate Community Relations Activities

The community relations activities will be evaluated throughout the decommissioning process to assess their effectiveness. By monitoring the concerns of the members of the public in the nearby communities, community relations activities can be targeted as the needs and concerns of citizens change. Those activities that are not effective, or no longer relevant, may be dropped - pending input from the public. Similarly, additional community relations activities can be added to meet specific needs as community concerns change focus. A brief description of potential evaluation activities follows.

Meeting and Activity Evaluation Forms

An evaluation form will be developed that can be distributed to participants at appropriate community relations activities, such as Open Houses, Community Information Sessions or public meetings, etc. to solicit feedback on what took place. These forms will be utilized by NASA to monitor the effectiveness of specific activities, and to make any changes or revisions. The forms are also an effective way of determining how people learned about community relations activities so that channels to increase awareness can be better targeted.

Process Evaluation

A number of mechanisms exist for evaluating the effectiveness of community relations activities throughout the decommissioning process. Monitoring will help determine if community relations activities are effective in meeting the needs of citizens and maintaining the trust and credibility of NASA Glenn. Techniques will include monitoring the news coverage for number, length, and tone of reports; evaluating specific public events (i.e. community information sessions, presentations to existing groups, briefings, etc.) for the number of people attending and the types of interests that the attending community expresses; noting the distribution of fact sheets and other written materials for the number(s) and location(s) where they are distributed, and to ensure that information is readily available in the most appropriate locations. The effectiveness of more proactive media relations related to decommissioning can be measured both by the number of meetings and contacts resulting in coverage (neutral, negative or favorable), and by the number of contacts initiated by the media for commentary, interviews, features and participation in public affairs panels.

Requests for information received via the telephone information line or in writing will also be periodically evaluated to ensure NASA is providing a timely response and addressing any community concerns. Finally, the effectiveness of the Community Workgroup can also be assessed periodically using a combination of brief written questionnaires, a focus group or one-on-one interviews.

Focus groups are a common tool used for process, outcome and impact type evaluations. The focus groups held in August 2002 proved a baseline for evaluating the impact of outreach efforts on public awareness, perceptions and confidence in the process. In addition to providing a wealth of information about opinions, preferences, concerns and suggestions, techniques can be used to give a quantitative measure of how NASA is perceived as a "neighbor."

Project Metrics

NASA has also established a process to identify a series of project measures or so-called metrics to monitor performance and accomplishments on the Decommissioning Project. A series of metrics have also been established for the Community Relations aspects of the project, which are tracked on a monthly basis. The metrics for Community Relations include: hits to the Telephone Information Line – including a report on calls to each Information Line option and mailbox and any feedback received from callers; the response time to callers' requests for information or questions; hits to the Website; the number of public attendees at Community Relations functions and any feedback received; and the extent of news accounts on the project.