



Decommissioning News.

A newsletter to inform the public about NASA's Decommissioning Activities.

Twenty-First Edition. February 2007.



Kudos for Keith.

We're always pleased to report when good things happen to good people. Keith Peecook, who had served as Acting Decommissioning

Project Manager since September 2005, was promoted to Decommissioning Program Manager last fall. Keith continues to oversee the project's daily operations - and its schedule, performance and future planning, but now he reports directly to the Director of Safety and Mission Assurance at NASA Glenn. He had been serving in the dual capacity of Senior Project Engineer, managing the technical approach of day to day operations while assuring safety and regulatory compliance. In December, Keith promoted Peter Kolb, the project's Environmental Manager, to Acting Senior Project Engineer.

Keith joined NASA in 1987. He served as a test and verification engineer in the Space Station Directorate, a program engineer in the Nuclear Propulsion Office, and as a facility engineer in the Aeronautics Directorate all at Glenn; and as an environmental engineer and facility manager at Plum Brook Station before beginning work on the Decommissioning Project in 1998.

Keith received his BS in mechanical engineering from the University of Michigan and his MS in industrial engineering from Cleveland State University. He is a licensed Professional Engineer, and a Captain and Engineering Duty Officer in the US Navy Reserves. "I'm happy to be able to continue managing this important project," Keith said. "I look forward to working even more closely with NASA Glenn and the community, to bring about the completion of a safe and successful decommissioning." ■

Project Update. Reactor Facility Gets Cleaner and Leaner.

NASA started this year with activity that is, according to Decommissioning Program Manager Keith Peecook, "making the Reactor Facility cleaner and leaner." Workers completed all asbestos removal from the facility, disposing of more than 21,000 square feet of tile. The facility became leaner when workers from subcontractor MOTA Corp., began removing concrete slabs from the Hot Cells, seven rooms where reactor experiments had once been analyzed. Last summer, NASA successfully decontaminated Hot Cell #1, the largest of the rooms, removing more than 70 tons of concrete that was cleaned to "free release" levels, allowing for recycling. In January, workers started on Hot Cell #2, removing concrete roof slabs (each weighing at least four tons). They were moved into one of the facility's former canals for decontamination.



NASA has employed a new, track-mounted machine, known as a "Brokk," which is operated remotely. Peecook said the machine "is like a Swiss army knife. You can put a huge

assortment of tools" on its long arm. Workers recently mounted on it a large shaver head, which removes lightly contaminated concrete from the Hot Cell walls, floors and ceilings a quarter inch at a time. The underlying concrete is then monitored to make sure it meets project cleanup levels. They have also used the Brokk, to remove embedded steel.

Late last November, NASA cleaned out an outdoor structure, the WEMS Pit, once part of the Waste Effluent Monitoring Station. When the reactor was operational, the WEMS ensured that water from reactor operations met strict discharge guidelines. Over the years, the concrete structure had been filled with leaves, grass and other organic materials, and with rainwater.

Embedded Piping Success.

NASA is close to completing the cleaning and surveying of embedded piping, systems of pipe encased in concrete as much as 46 feet below



ground. Subcontractor BSI has finished nearly three miles of piping, including primary water lines as much as two feet in diameter.

BSI Project Element Manager Jack Ricardo noted that nearly all piping was cleaned with "roto-roooter" type equipment (with cutting blades and brushes) and then vacuumed, followed by surveying to ensure it was clean. He added that "just about 1,000 feet" of piping required using the Hydrolaze, a powerful pressure washer that ensured the most contaminated piping would meet required cleanup levels. "Two years ago we began working together as a team, to establish what to do and how to do it," Ricardo observed. "We look forward to completion of this task (nearly four miles of this piping) by early summer." His crew is also working on cleaning and surveying buried pipes, covered with soil but not concrete. There are about 33,000 feet of buried piping outdoors at the Reactor Facility, but most has little or no contamination.

Looking Ahead.

Peecook said NASA continues to characterize the remaining radiation in the Reactor Facility while awaiting the U.S. Nuclear Regulatory Commission's (NRC) approval of NASA's Final Status Survey (FSS) Plan. The NRC is currently reviewing the plan, which he described as a test that spells out NASA's cleanup goals "and how we're going to reach them." To this end, NASA has prepared the Service Equipment Building and the Reactor Office and Lab for FSS work. He also said the Decommissioning Team is getting ready to issue a Request for Proposals, for the project's Completion Contract. This contract's scope will cover: completion of all decontamination; preparation of all remaining

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Project Update article photos.

- In the photo in the upper left, the Brokk, resembling a small backhoe, is playing a large role in the decontamination of Hot Cell concrete.
- In the photo in the upper right corner, is the WEMS Pit, (surrounded by fencing) which a crew from subcontractor MOTA is cleaning. Note the hose running from the pit at the center of the photo.



NASA Half-way Through Off-site Sampling.

Workers stood in warm water and frozen marshes, dug deep into bedrock, sediment and shale and checked ground and surface water. Hundreds of samples later, NASA continues to find the results posing no health concern to local residents, including small children.

The work began after the discovery, in summer 2005, of minute levels of cesium in some sediment – but not the water – in Plum Brook. The cesium is believed to have resulted from permitted discharges during Reactor Facility operations from 1962 to 1973.

Between November 2005 and March 2006, NASA analyzed more than 1,200 sediment samples and last summer began working with hydrogeologists from Haag Environmental Company (of Sandusky) as part of a comprehensive off-site sampling program

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NASA Half-way Through Off-site Sampling article photo.

In the photo in the upper left corner, three Haag Environmental workers stand in shallow water near the shore of Sandusky Bay. The worker to the right is holding a probe to take a sample from the bottom of the bay.

NASA Celebrates Plum Brook Station, Reactor History.

NASA Plum Brook Station (PBS) history, and the people who helped make it, were celebrated last September, when some 200 current and former NASA employees gathered for the 4th Plum Brook Station Reunion. The event featured food, drink, a facilities tour and shared memories; as well as a book signing by Dr. Mark Bowles, the author of *Science in Flux – NASA’s Nuclear Program at Plum Brook Station, 1955-2005*. Decommissioning Program Manager Keith Peacock provided a presentation on the project and said later that NASA retirees “are a constant source of inspiration and information.” He pointed out that several, including retirees Crooks, Jack Ross, Don Young, Mike Sudsina and the late Dean Sheibley (see box on page three), have been invaluable in providing technical assistance on many decommissioning tasks, including identifying embedded and buried piping for cleanup and assessing radiological data.



Crooks noted that “People as far away as Texas and Tennessee attended the reunion. There were some first-time attendees, including Tony Colnar, who was at the groundbreaking of the Reactor Facility in 1956.” Added retiree Len Homyak, “The reunion was great and very successful.” He praised author Bowles, remarking that his book was “very factual and easy reading. I’m glad I was associated with it.” Also on hand was Ron Cull of the PBS Management Office, who addressed current and future work at PBS, and NASA Glenn History Officer Kevin Coleman, who distributed books. NASA is also sending complimentary copies to local schools, libraries and community organizations. Interested groups may request a copy via the Project Information Line at 1-800-260-3838 (Option 4) or the Decommissioning Website mailbox at www.grc.nasa.gov/WWW/pbrf.

Coleman said he continues to be amazed by the “dedication of the people” chronicled in PBRF history efforts, and by the interest in PBS history on the part of Perkins Township and other local residents. When he first became involved with the project in 1999, he said he “did not realize the closeness of a small community” and the memories of many current and former area residents, who recall when the land that is now Plum Brook Station was farmland acquired by the federal government for a Ordnance Facility (TNT factory) that operated throughout World War II.

Coleman is working with several colleagues to digitize and caption thousands of photos of PBS, many of them of the Reactor Facility. He plans to get some of them posted on the Decommissioning Website, along with links to *Science in Flux*, and 2004’s *NASA’s Nuclear Frontier*, co-authored by Bowles and NASA History Archivist Bob Arrighi. He and Arrighi will also create a PBRF History Website with several new features – including video interviews with NASA retirees – to be linked to the Decommissioning Website. ■

Bill Brown, the event Chairman, helped make the reunion a success, working with a committee that included NASA retirees Earl Boitel, Tom Brink, Jack Crooks, Len Homyak, Jim Hurst, Harry McCune, Dick Schuh, Starr Truscott and Betty and Dave Willinger, along with Bob Puzak of the Plum Brook Management Office.

NASA Celebrates Plum Brook Station, Reactor History article photos.

- In the photo in the upper right corner, most of the nearly 200 Plum Brook Reunion attendees made it into this overhead shot.
- In the photo to the upper right, NASA Glenn History Officer Kevin Coleman (left) handed out copies of *Science in Flux* at both the Plum Brook Reunion and the Community Information Session (CIS). Here he talks with Dorothea Lofquist, of the Ohio Veterans Home Museum, at the CIS.

Other ways to receive Decommissioning Information.

Decommissioning Website.

For project updates, fact sheets, newsletters, and to ask questions, visit us at www.grc.nasa.gov/WWW/pbrf

24-Hour Toll-Free Information Line.

For recorded project updates and to ask questions, call 1-800-260-3838.

Community Information Bank.

To review documents, visit the Decommissioning Project information repository at the [BGSU Firelands Library](#).

Speakers.

To arrange for a NASA representative to make presentations to civic, community and school organizations, contact [Sally Harrington](#), NASA Public Affairs Specialist, 216-433-2037, or email: s.harrington@grc.nasa.gov or call 1-800-260-3838.



Welcoming Folks Back and Looking Forward. NASA Hosts Community Information Session at Plum Brook Station.

NASA hosted its eighth annual Community Information Session (CIS) at Plum Brook Station in October. It was the first public event in several years at Plum Brook Station (PBS) and marked 50 years of test facilities there. Some 75 members of the public were on hand, with a third attending a Decommissioning event for the first time.

Attendees had the chance to talk with NASA personnel and contractors at displays showing decommissioning progress, the Reactor Facility's history and PBS projects. They also viewed an animated video on the Constellation Program – highlighting plans for further human space exploration – climbed aboard the Aero Bus (a NASA Glenn traveling exhibit), and visited a pictorial display on the history of PBS and the Reactor Facility. NASA Glenn History Officer Kevin Coleman and several colleagues handed out copies of a new book on the Reactor Facility – *Science in Flux* – and the documentary video, *Of Ashes and Atoms*, which had a free public debut at the Sandusky State Theater in 2004, attracting more than 700 viewers.

Several CIS visitors completed feedback forms, indicating they had learned a lot about the Decommissioning, through a presentation by Peecook and chats with NASA personnel. Others provided additional comment. Patricia Frey of Huron attended her first CIS, and found it “very interesting and informative.” She noted “I didn't know the story about Plum Brook Station's history, buying up the land from local farmers, or NASA's nuclear connection...I hope they have another (public event) here.”

Oscar Villalon of Perkins Township, a PBS neighbor, had attended “a couple” of NASA events but had even more interest this year. He wanted to know “what was going on” regarding off-site sampling along Plum Brook (see page two). “My concern was that last summer's flooding could have picked up something (radioactive),” he explained. He noted his opportunity to speak with hydrogeology consultants Bob and Ruth Haag, who were on hand to talk about the sampling, and said he “liked the way they explained” the issue.

Malcom Gray, a retired Norwalk resident, made his first visit to PBS “on the ground,” explaining that he had flown over it many times while working with an air services company. He found the CIS “interesting and intriguing...the depth and breadth of what's gone on there.” He said he enjoyed learning about the Reactor Facility, adding, “My wife loved the book” he brought home.

NASA Glenn public affairs specialist Sally Harrington said she is pleased that “We're still getting the word out to some new folks about decommissioning, and letting the public know about all the activity at Plum Brook Station.” She added, “NASA has made a point of reaching out to as many local communities as possible, but we're glad for the chance to bring this event back inside our gates.”

The Community Information Session gave visitors a good sense of NASA's past, present and future. Many came early to also attend a meeting of the project's Community Workgroup. At the meeting, Workgroup members and local residents heard the latest on the Reactor Facility Decommissioning from Program Manager Keith Peecook, and were given an update on the Plum Brook Station's role in planned testing for an upper engine in the new Ares Crew Launch Vehicle and the Lunar Module Launch Vehicle. Testing is expected to begin in 2010, the year decommissioning is completed. ■

Welcoming Folks Back and Looking Forward article photo.

■ In the photo in the upper left corner, a large audience listened to a presentation by Decommissioning Program Manager Keith Peecook (at the center of the photo) at the CIS.

Thanks Farewell, Dean.

The Decommissioning Project and the Plum Brook family lost a good friend, when Dean Sheibley passed away on December 24 at the age of 71. Dean's career spanned the life of the Plum Brook Reactor Facility (PBRF) and its current decommissioning, as he worked at the facility from 1959 (before its actual start-up) until its shutdown in 1973.

He then moved on to NASA Glenn, where he served in several capacities – including project manager for the power generation and energy storage system on the International Space Station – until his retirement in 1994. In retirement, he was a consultant to the Decommissioning Project, continuing friendships and associations as much as five decades old. Decommissioning Program Manager Keith Peecook said Dean was “One of the finest people I've ever worked with; and more than that, he was a friend. He is missed by all those who had the pleasure to know him.” Thanks and farewell, Dean.

COMMUNITY WORKGROUP MEMBER PROFILE.

Mike Yost.

Some people say familiarity breeds contempt. But when you're helping keep watch on the decommissioning of a Reactor Facility, one might say familiarity breeds confidence. Having an uncle who worked at the Plum Brook Reactor Facility (PBRF) and married to a woman who grew up near Plum Brook Station, Mike Yost brings much to NASA's table. Battalion Chief of the Sandusky Fire Department, Director of the Erie County Hazardous Materials (Hazmat) Team and Chair of the Local Area Emergency Planning Committee, the Sandusky native recalls going on “one of the first public tours” of the PBRF as a grade school student. The pools holding fuel rods and the radiation detector “that you stuck your hands in” made an impression on him then.

Yost graduated from Sandusky High School and Owens Technical College (in Perysburg) with a degree in Fire Science. He joined the Perkins Fire Department in 1973, recalling tours of PBS buildings to familiarize firefighters. He moved to Sandusky's department in 1975 and, in the early 90's, was a founding member of the Erie County Hazmat Team, consisting of volunteers from each fire department in the county. His hazmat work brought him into contact with the Decommissioning Project and with Erie County Emergency Management Agency Director Bill Walker, a founding member of the project's Workgroup. Yost got an up-close look at the PBRF as a Hazmat Team member, responding to a small fire caused by a torch in the Containment Vessel and to the report of smoke coming from a crane at the facility (neither incident resulted in a hazardous materials release).

Yost joined the Workgroup last February at the invitation of Walker. Noting that he “came late” to the panel, the chief is “impressed by the way it's working,” adding that NASA's support “is a good idea. It helps keep the public informed. There is a public perception that the federal government is secretive” and he thinks the Workgroup helps counter this perception. He believes NASA's efforts to monitor, track and clean up off-site contamination (see article on page one) are important since “Even though the amounts are very minute, people have asked ‘What's the deal on the contamination...How much has passed through (Plum Brook and nearby areas)?’”

A commitment to community health and safety runs in the Yost family. Wife Deb is a nurse at the Firelands Regional Medical Center and two sons are also firefighters – one in Perkins, the other in Battle Creek, MI. And this commitment will continue as Mike works with the NASA family on decommissioning. ■



In photo above, workers from Haag Environmental began sampling Sandusky Bay in September. In this photo, three workers are shown on a pontoon boat, on which the Geoprobe (a tall, metal structure at the center of the photo) has been mounted.

OFF-SITE SAMPLING (CONTINUED FROM PAGE 2).

(see October 2006 newsletter). In September, Haag Enviro scientists began sampling sediment at the bottom of Sandusky Bay, and in ponds at the Plum Brook Country Club and in groundwater wells on NASA property. Initial results have been consistent with previous sampling efforts and the samples were sent to an off-site laboratory for confirmation.

In December, Haag Enviro began sampling areas of the Putnam Marsh Nature Reserve, south of Plum Brook. According to hydrogeologist Bob Haag, "Our sampling is designed to ensure that NASA looked into every possible location where very small amounts of material may have been transported in the 60's and early 70's. It also served as an additional check to confirm there was no contamination in groundwater or surface water as a result of reactor operations or decommissioning." NASA has shared all information with the U.S. Nuclear Regulatory Commission (NRC) and the Ohio Department of Health (ODH) and anticipates that all sampling and analysis will be completed this spring.

Haag said all sampling in Sandusky Bay has indicated that radiation is at or near background levels. He added, "The results in the bay have been lower than what we expected." In Sandusky Bay, workers took Geoprobe samples in shin-deep water, using what is called a manual sample driver, and employed a hydraulic driving device that was mounted on a pontoon boat, to obtain Geoprobe samples further out.

NASA Decommissioning Program Manager Keith Peacock said sampling conducted since September shows levels to be "barely detectable." He speculated that any traces of cesium found might actually be attributable to fallout from atomic bomb testing conducted in the Southwest during the early 1950's. He reiterated that NASA will take any steps that the NRC and ODH indicate are needed, but believes only spot cleanup "with a shovel and a barrel" may be necessary in some limited areas. He also said NASA would ensure that its off-site cleanup goal will match the on-site decommissioning levels. "We do what it takes to ensure the safety of the community, the environment and our workers," Peacock stated. "This is just one more example of NASA's commitment." ■

PROJECT UPDATE (CONTINUED FROM PAGE 1).

sites for FSS work; surveying and, where necessary, removal and shipment of more than 50 million pounds of soil, and the disposal of all remaining waste material. Peacock expects the contract to be awarded this summer, with work beginning by early 2008 and completion by 2010. "It's nice to use the word 'completion' in relation to this project," Peacock observed. "We're pleased with our progress." ■

On-Site Environmental Sampling Shows Decommissioning Is SAFE.

The Decommissioning Project's on-site monitoring program continues to show no releases of radiation as a result of decommissioning. NASA's comprehensive program includes sending air, surface water, groundwater and sediment samples, from inside the Reactor Facility fence line, to a certified off-site laboratory for analysis.

**LEARN MORE ABOUT NASA's
Decommissioning Project.
See Our Next Edition in June.**