

**Meeting of the Decommissioning Project Community Workgroup (#30)
Tuesday, January 30, 2007
Bettcher Room, BGSU Firelands**

The meeting began at 7 p.m. The following Workgroup members were present John Blakeman, Bob Speers, Rick Myosky, Ralph Roshong, Dave Stein and Bill Walker. Representing NASA were Program Manager Keith Peecook, Project Environmental Manager Peter Kolb and NASA Glenn Public Affairs Specialist Sally Harrington. Susan Santos and Michael Morgan of FOCUS GROUP were present as were. Also attending was Alvin Smith of Energy Solutions and five members of the public.

Opening Remarks

Peecook welcomed everyone to the meeting, noting that it was the 30th that NASA has held and thanked the Workgroup members for coming out on a cold night. Susan Santos asked for and received acceptance of the October 2006 Workgroup meeting minutes, then reviewed the January meeting agenda.

Project Update

Keith opened his presentation by showing an aerial photo of the Reactor Facility (taken in May 2005) and pointed out some of the buildings for attendees less familiar with the history of the project. He reported that all cleanup and characterization work was now complete in the Reactor Office and Lab and Service Equipment Buildings, and that they were now ready for Final Status Survey (FSS) work, explaining that these structures would provide the opportunity to ensure that NASA's FSS procedures "will all work as planned." He added that these buildings had been cordoned off with "a green rope," signifying that nobody can cross except FSS people." Keith also said the US Nuclear Regulatory Commission's Nuclear Materials group was now reviewing the FSS and supervising all decommissioning projects, having taken over the task from the Nuclear Research Reactor group. He said the review includes "a stack of reports that we'll give to the NRC to show how we cleaned up" the Reactor Facility," adding that meeting all FSS requirements was essential to NASA's goal of terminating its license with the NRC.

Keith reported that a team of NRC officials – from both the Washington, DC headquarters and the Region 2 office in Lisle, IL – had conducted a site visit to PBRF in December and Dave Nelson, the project manager from Washington said he was comfortable with what NASA is doing, leading Keith to conclude that based on the NRC's observations, "I'm comfortable going ahead."

Hot Cell Work

Keith reported that decontamination work in Hot Cell #1 (the largest of the rooms) had been successfully completed in late fall, with work shifting to Hot Cells 2 through 7, especially in Hot Cell #2. There, workers have removed three concrete slabs that had comprised the cell's roof, each weighing between four and nine tons. He said the slabs were moved into one of the former canals of the containment vessel, where it will be decontaminated to "free release" levels, such that it can be recycled as scrap concrete.

Keith said that NASA is making use of a special piece of equipment known as a “Brokk” for decontaminating the concrete walls of the Hot Cells, as well as embedded steel from the rooms. He described the Brokk as being remote controlled, mounted on tracks and about the size of a small backhoe, explaining that they are made in sizes ranging from as small as a desk to as large as the meeting room. Keith said the machine also has a long arm that can be fitted with a variety of tools “like a Swiss army knife” and that workers from subcontractor MOTA Corp. had mounted a large steel shaver head on the arm, to scrape away contaminated concrete a quarter inch at a time. The underlying concrete is then surveyed and the process repeated until the concrete meets project cleanup levels. He added that the roof plugs were being cleaned with what he termed a “sponge blaster” which had a titanium tip and estimated completion of the Hot Cell work this June.

Embedded Piping

Work continues on the decontamination and surveying, with Keith noting that some 12,000 feet had been cleaned out of a total of about 20,000 feet. He said subcontractor BSI had been cleaning about 250 feet of piping per week but had gotten off track due to some corroded primary circulating water pipes and floor drains in the Waste Handling Building. This piping will be filled with grout, and the area will be marked on the floors and become part of the “completion contract.” The corroded piping will later be regarded as low-level radioactive waste that will be dug up, packaged and shipped to the Energy Solutions licensed disposal facility in Utah.

Keith reported that BSI workers are making progress on cleaning both the largest (24-inch water main lines) and smallest (one-inch conduits) pipes in the Reactor Facility and that work using the hydrolaze (a high-powered pressure washer) had been completed. The hydrolaze had to be used on just about 1,300 feet of piping (that could not be cleaned using mechanical means and a vacuum unit), including the opening of the Hot Pipe Tunnel as it meets the Primary Pump House. He added that once the machine was used on these areas, “we were well below our cleanup levels.” In addition, because work has now begun on the small (one-inch conduits) piping in the Hot Cells, he expects the production rate to soon increase to between 500 and 600 feet per week.

Workgroup member John Blakeman asked how NASA knows the piping is clean. Keith responded that the team gives the NRC its survey results and “no grouting (of the pipes) will take place until is NASA is given the OK on the Final Status Survey results.” John also asked about the status of the waste being temporarily stored on site at PBRF. Keith explained that most waste from the embedded piping is in the form of rust vacuumed from the pipes and stored in 55-gallon drums. Also being stored in the drums is other piping waste and lead “shot” from the Hot Cell windows, which were removed last spring. He added that the limited waste removed via the hydrolaze is in liquid form and is being stored in water drums. Keith pointed out that the NRC representatives who visited in December saw “how we store and label” the waste and had no problem with the procedure. Between the solid and water waste, NASA currently has 280 drums in temporary on-site storage. Workgroup member Bill Walker asked when the waste shipments would begin, with Keith responding that they would not begin until spring

2008 at the earliest. He also said a major component of the “completion contract would be for waste disposal.

WEMS Pit Cleanout & Reactor Facility Flooding

Keith then reported on the cleanout of the WEMS (Waste Effluent Monitoring Station) pit, which took place in November and early December. When the reactor was operational, the WEMS was used to regulate permitted water discharges from the reactor, never allowing any water to be released if its radiation content exceeded ten percent of the discharge limits. On the few occasions when water exceeded the ten percent limit, it was redirected to the Emergency Retention Basin, a large outdoor structure in which the water was held until the radiation it contained decayed to acceptable discharge limits. Keith likened the WEMS pit to a swimming pool that had not been used in 30 years and had filled with leaves, grass clippings, mud and other organic materials. He said two feet of this organic waste had accumulated in the pit.

Keith said the work involved scooping out the vegetable matter and “muck” from the pit and cleaning drain line pipes that ran into the WEMS pit from culverts running under Pentolite Road. During this work, the lines were blocked and an alternate pumping arrangement instituted and the organic waste placed on the ground north of the Emergency Retention Basin where soil from the upcoming Pentolite Ditch clean up will also be placed. He observed that “This was working great” until the storm of November 30 and December 1 dumped four inches of rain in the area, resulting in thousands of gallons of water rushing into the Reactor Facility, overwhelming bypass pumps and setting off a High Sump Level alarm in the Service Equipment Building.

Keith explained that the water flowed down through the Cold Pipe Tunnel and into the Reactor Office and Lab Building. NASA’s initial response was to remove the cover plates that had been placed over the outlets in the WEMS pit, which stopped new water from backing up. Once the water once again flowed into the WEMS pit, the sump pumps were able handle the water and levels returned to normal levels within a few hours. Keith pointed out that NASA did hourly monitoring over a seven-hour period but most of the samples taken showed radiation to be under what are termed Minimum Detectable Activity levels and that no sample had a level over one percent of the discharge limits. He added that about 50,000 gallons of water from the flooding had accumulated in low areas of the Reactor Building, such as the pipe trench and sub-pile room, where there were no sump pumps. But he said this water was carefully sampled and pumped out over the subsequent two weeks. He also observed, “I thought we’d get a concentration (of radiation)” as a result of the flooding, “but we never saw anything.” NASA told NRC officials of the flooding when they made their site visit but they expressed satisfaction with NASA’s actions.

Status of “Completion Contract”

Keith talked about what he called the “Completion Contract,” quickly adding that the latter term was “actually a misnomer.” He said this contract would not actually complete decommissioning work, but would accomplish all of the remaining major tasks. These include: completing all decontamination work; preparing all remaining PBRF sites for the

FSS; excavating and sampling more than 50 million pounds of soil and properly disposing of all waste material. A draft Statement of Work, describing the tasks to be performed under the contract, was being made available to prospective bidders as of January 31. He said 34 contractors had expressed interest in bidding and he was hoping that this preliminary interest would translate into healthy competition that would “get the price down and also find some creative ways” of doing the work. He showed the Workgroup some slides that are part of a “virtual tour” of the Waste Handling Building. John Blakeman asked who put the “virtual tour” together and Keith explained that it was done by the Imaging Technology Office at NASA Glenn and offered to make available to the Workgroup CD’s of the tour that were being given to prospective bidders.

Keith said the plan is to have the contractors bid “at least the decontamination work with a fixed price, unless there is a scope change.” He said this kind of change would be warranted under some unforeseen circumstances, such as finding there is more than three inches of contaminated concrete on PBRF walls and floors as opposed to the half-inch or less that has been found in most areas. Workgroup member Ralph Roshong asked “How often, when you write a spec, does one half inch turn out to actually be two inches?” Keith said, in such circumstances, “We’ll add in 10 to 15 percent.” Ralph expressed concern about cost overruns on federal government contracts, noting that the actual cost of four US Coast Guard cutters turned out to be twice the budgeted cost. Keith replied that he understood Ralph’s frustration, noting that earlier on this project “We had a cost-plus basis with an award fee (for the contractor). All the risk was on the government,” with no incentives for efficiency on the part of the contractor. But, he said, having a fixed price contract now “puts more risk on the bidder.”

Ralph asked if a fixed price actually meant the actual price paid for doing the work, with Keith replying “This approach is shared risk.” Susan noted that NASA was also letting out an Independent Cost Estimate that would also be used for guidance on the “completion contract, while Keith added that the US Department of Energy bid out an “incentivized contract” on the Mound Facility in southern Ohio, observing that “if you can properly incentivize a contract, it’s the best way to go.” He talked briefly about the Waste Management Conference in Tucson, Arizona at the end of February, noting that NASA would have a room at the conference hotel in which contractors could pick up information on the “completion contract,” including a CD with project photos and specs.

Keith added that because the overall NASA budget is currently being funded by a continuing resolution of Congress, in lieu of a finished budget, NASA is currently operating with a budget that is \$500 million less than it was last year. As a result, Keith said the Decommissioning Project is currently operating with less money than was actually budgeted. Nonetheless, he said he hoped to have a contract awarded this summer with the contractor on site by this time next year - and have waste shipments ready to go in February or March 2008.

Cadmium-Containing Control Rods

Keith briefly discussed the status of the cadmium-containing control rods, which have been kept in temporary cask storage at Plum Brook Station since their removal from the

Hot Lab. Keith said that the rods consist of about 600 pounds of metal and have about 50 curies of radiation, noting that the six shipments to the Barnwell licensed disposal facility during segmentation had a content of about 10,000 curies. He reported that NASA had issued a Request for Proposals and was currently in the 30-day open period for responses. He added that he expected both qualified vendors to submit bids for removal of the rods, and once the bids are reviewed, a contract will be awarded, with the work to be done some time this spring. John Blakeman asked if the Workgroup and public would be notified by NASA, saying the public would like to know. Keith replied that he would give advance notice to Bill Walker in his capacity as the Erie County Emergency Management Agency Director and would let the Workgroup know right after the rods were shipped, in addition to updating the telephone information line with news of the shipment.

Off-Site Characterization

Bob Haag of Haag Environmental gave the Workgroup a presentation on Plum Brook off-site characterization efforts, having provided similar information to the satisfaction of the Sandusky City Commission on January 22. He reported that sampling has been completed in areas of Sandusky Bay (including an area behind Cedar Point), as well as in some wells on-site at Plum Brook Station (PBS), outside of the Reactor Facility fence line, ponds located on Plum Brook Country Club land and the stream mouth at Plum Brook. He noted that the wells at PBS have very low levels of cesium and NASA is now preparing to look at wells upgradient of PBS, to establish background levels. Consistent with earlier sampling, Bob said that most samples were 3 picocuries per gram or less, adding that there have been occasional elevated readings - but well below the proposed NASA cleanup level of 12 picocuries per gram. He added that the levels found posed no health or safety concerns and had also determined that the drinking water in Sandusky Bay was safe, as he had reported to the City Commission.

Bob showed several charts showing where samples had been taken and said “We expected to find peat and muck, along with a delta of sand, silt and clay in the bay,” explaining that a delta containing clay would indicate the migration of cesium-bearing sediment since the cesium was released in October 1968. But, he pointed out, “We found no delta, just peat and muck,” noting that the workers had to probe through seven feet of peat in order to find any clay. “We thought we might find cesium at the top of the peat, but we did not,” he said before adding “We’re having trouble telling Plum Brook cesium (levels) from background, which is good.”

Workgroup member Bob Speers asked about the age of the thick peat layer, and how it was determined. Bob Haag said the peat may be “many thousands of years old,” explaining that he had read literature on the last retreat of glaciers in the area, which took place about 2,000 years ago. Keith noted that no sediment/clay “delta” had been found in the bay but asked what had been found during current sampling efforts near Putnam Marsh. Bob said they had found what they expected – “just very fine amounts of clay.” [Note: Subsequent sampling did find a “delta” area in the marsh, though the cesium content was again below cleanup levels and additional sampling was conducted as a

precaution.] Bob added that the next step in the process was to evaluate the results of all sampling that had been conducted in Sandusky Bay.

Community Relations Update

Sally Harrington reported that a fact sheet on the off-site sampling results would be published this summer. She also said the next edition of the Decommissioning Newsletter would be published and mailed to 2,300 recipients in mid-February. Susan Santos then noted that, given the slower pace of work that will continue until 2008, she believed it was best for NASA to change the number of annual newsletters – and Community Workgroup meetings – from four to three and Workgroup members agreed. The next newsletter will be published in June, most likely a few days in advance of the next Workgroup meeting, which will be held on Tuesday, June 19. NASA will hold both a Workgroup meeting (with an early start time of 5:30 PM) and the annual Community Information Session (CIS), on Wednesday October 17. There will also be an October newsletter, which will be published and mailed about a week before the Workgroup meeting and CIS.

The meeting adjourned at 8:15 PM.