

May 12, 2017

Jay Mullis Acting Manager Oak Ridge Office of Environmental Management U.S. Department of Energy P.O. Box 2001, EM-90 Oak Ridge, TN 37831

Dear Mr. Mullis:

Recommendation 234: Recommendations on Biology Complex Facilities at the Y-12 National Security Complex

At our May 10, 2017, meeting, the Oak Ridge Site Specific Advisory Board approved the enclosed recommendation on the Biology Complex Facilities at the Y-12 National Security Complex.

There are three specific points in the recommendation that the board would like you to address in your response.

We appreciate your consideration of our recommendation and look forward to receiving your response by August 14, 2017.

Sincerely,

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Belinda Price, Chair BP/rsg

Enclosure

cc/enc: Dave Adler, DOE-ORO Dave Borak, DOE-HQ Kristof Czartoryski, TDEC Connie Jones, EPA Region 4 Terry Frank, Anderson County Mayor Melyssa Noe, DOE-ORO John Owsley, TDEC

Mark Watson, Oak Ridge City Manager Ron Woody, Roane County Executive File Code 140



Oak Ridge Site Specific Advisory Board Recommendation 234: Recommendations on Biology Complex Facilities at the Y-12 National Security Complex, Oak Ridge, Tennessee

Background

Following a 2015 audit by the Government Accountability Office (GAO), DOE's excess contaminated facilities have come under increased scrutiny. Not only do these deteriorating structures pose risks to workers and the environment, but they also carry the burden of high maintenance costs for the government programs that continue to manage them. Some of the worst of these facilities are located in Oak Ridge. There are approximately 350 excess contaminated facilities located on the DOE Oak Ridge Reservation, and nearly half of those are classified as high risk, accounting for forty percent of the high-risk facilities in DOE's nationwide inventory.



DOE Oak The Ridge **Environmental Management** program (OREM) began to address its own concerns for excess facilities and their rising maintenance costs prior to the GAO audit. In 2007, an Integrated Facilities Disposition Program was developed to consider the entire scope of Oak Ridge cleanup, including the excess facilities from the Y-12 National Security Complex (Y-12) and Oak Ridge National Laboratory (ORNL) expected to be transferred to OREM's responsibility in the future.

Through IDFP, OREM worked with operating programs at Y-12 and ORNL to identify facilities, conduct walkthroughs, perform research and characterization, and assess the overall scope and hazards likely to be encountered in these facilities. The expectation at that time was that decontamination and decommissioning (D&D) would be imminent, and the assessments in 2008 estimated a \$9-14 billion cost, with a 25-year duration for the Oak Ridge cleanup program. Today, however, funding for D&D has been pushed out much further in the future, with the first removal operations scheduled to begin at Y-12 sometime in the 2020s.

Increased attention from the GAO audit contributed to funding "plus-ups" for FY 2016. OREM received \$28 million for excess contaminated facilities in FY 2016 and has used those funds to help stabilize structures for long-term stewardship until D&D begins. Excess facilities funding covers a range of risk-reduction activities, including removal of hazardous material, some repairs and maintenance, sampling, characterization work, and meeting documentation requirements. It does not cover demolition and is specifically meant to reduce the risks of continued degradation until D&D can be funded in the future.



The Biology Complex is a DOE Office of Science facility. Four of the twelve buildings in the complex were demolished with funding from the American Recovery and Reinvestment Act of 2009. The remaining buildings have been inactive for over a decade and are in deteriorating conditions. Most of the loose materials were prior cleaned out to deactivation, but water infiltration has contributed to further degradation. Air quality has a major impact on worker safety. Airborne risks like asbestos, mold, and droppings animal require workers to dress out fully with respirators and further

constrain the risk-reduction work that needs to be performed. Before the Biology Complex can be demolished, characterization to determine the extent of contamination is necessary, which will help determine what needs to be removed, where waste can go, and other related remedial actions.



In FY 2016 DOE used some of the excess contaminated facilities funding for characterization work at the Biology Complex so that a waste handling plan will be in place in preparation for future D&D. This will provide DOE with information regarding what waste is in the buildings and help determine where the waste will need to be disposed. DOE is also performing more detailed planning, bv collecting data on quantities of asbestos, oil, etc., to get an idea of what and how much waste exists and how long it

will take to clean up. That information will help DOE with planning and prioritization and will aid in the annual budget request for sufficient funding. Desks and other equipment items were cleared from the buildings using American Recovery and Reinvestment Act funding, and that effort will have an enormous impact on future D&D and make work much easier to perform.

During FY 2017 DOE has been working with EPA and the state of Tennessee to develop a waste handling plan and a sampling plan. Results from sampling are starting to come in now and are expected to wrap up in the spring 2017 timeframe. Another part of the characterization process includes gathering process knowledge and building history to help determine how many samples will be necessary and where sampling will need to occur.

Discussion

At the November 9, 2016, meeting of the Oak Ridge Site Specific Advisory Board (ORSSAB), DOE federal portfolio project directors provided a presentation on excess contaminated facilities at Y-12 and ORNL. The presentation¹ gave an overview of risk-reduction and stabilization activities made possible with FY 2016 funding for excess contaminated facilities on the Oak Ridge Reservation.

ORSSAB members participated in a tour of excess facilities that included the Biology Complex (exterior only) on November 28, 2016, and took part in detailed discussions with DOE personnel during the November 30, 2016, Environmental Management/Stewardship Committee meeting. Based on the information regarding the Biology Complex provided during these interactions, the following issues were reviewed:

- The upfront activities being done at the complex should continue to be planned and implemented in a limited scope.
- The upfront activities might include additional tasks, such as planning for actual removal of miscellaneous equipment and items that are not grossly contaminated and developing a plan for creating a pathway to safe and effective access and egress within the complex.
- Since the timing for D&D of excess facilities is out to FY 2025 and beyond, concentrating particular effort on the Biology Complex would prove to the community that these facilities are also consequential.

Recommendations

The disposition of excess facilities is important to ORSSAB, as these facilities represent a continuing risk to the environment and the health and safety of workers and the community. We recognize that spending funds to stabilize facilities and maintain them for future demolition is necessary. We support acceleration of the site characterization program if funding becomes available so that demolition can occur expeditiously. We also support ongoing efforts at the Biology Complex and offer the following recommendations:

- 1. Continue to work on upfront activities at the complex with the addition of others such as the decontamination, if required, removal, and disposal of non-contaminated and minimally contaminated interior equipment. Disposal of these would be similarly to the current upfront activities.
- 2. Develop a personnel access plan for the various sections of the complex, with the purpose of moving items within the complex to establish safe pathways, strengthen structural sections/members to avoid potentially catastrophic conditions. We recommend having this plan ready prior to initiating actual D&D activities within the complex.
- 3. Since funding for the Biology Complex may now be used only for activities to avoid or eliminate risk, redirect additional funding plus-ups for the proposed upfront activities at the complex and the recommendations delineated above.

¹"Risk Reduction in Excess Contaminated Facilities at ORNL and Y-12; Bill McMillan, ORNL Portfolio Federal Project Director and Brian Henry, Y-12 Portfolio Federal Project Director; November 9, 2016; <u>https://energy.gov/sites/prod/files/2016/11/f34/2016%20November%209%20ORSSAB%20Excess%20Facilities%20Final-web_0.pdf</u>.