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If you guys have a copy of Oak Ridge Repository document number 2565, "Historic Hazard Sits on Outskirts of K-25" (as the database says you do), would you please fax a copy to me and to Barbara Brooks at (301) 903-4677.

Beryllium is a hot topic in the news because five K-25 workers have tested as sensitized to beryllium, and 300 people self-report that they were exposed to beryllium.

Do you know of any uses of beryllium at K-25 other than at the "Beryllium Building" (K-725) down by the S-50 site that was involved with the Nuclear Energy for Propulsion of Aircraft (NEPA) project 1946-1952?

Thanks

---------- Headers ----------
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2565

Historic hazard sits on outskirts of K-25

One recent day, breezy and cloudy, I journeyed (along with the requisite escorts, of course) to an historic outpost of the mammoth K-25 Site in Oak Ridge.

FRANK MUNGER

I wanted to take a look at Building K-725. Once upon a time, when the government occupation of Oak Ridge was still new, it was called the F-10 Building. Today, the 50-year-old structure is simply known as the Beryllium Building.

What piqued my interest was an aerial photograph of the site that seemed to show a large tree growing through the roof. I was curious about a remnant of the early nuclear age so neglected that nature had begun to reclaim ownership.

Well, it turned out that the tree-through-the-roof detail was an illusion. Up close, one can see that the tree is actually growing through a gap in the building's front portico.

The appearance of neglect, however, was no illusion. The Beryllium Building hasn't been used in decades, and it looks like there have been few visitors, although there was an aborted attempt at a cleanup in the 1970s.

The building is part of the K-25 maintenance-and-surveillance program applicable to unused facilities, and my escorts joked that it had obviously seen more surveillance than maintenance in recent years. Indeed.

The Beryllium Building actually had two lives.

The first was as a support shop for a World War II pilot operation of a uranium-enrichment technology known as S-50 thermal diffusion, which used high-pressure steam to separate the isotopes of uranium for potential use in atomic bombs. It was one of several enrichment concepts being tested at the same time (1944-45) under the urgent circumstances of the Manhattan Project.

The exact role of the building isn't clear to me, although it apparently was used for machining and other operations in support of the S-50 project (headquartered a couple of miles away). It is clear, however, that uranium was handled at the site, perhaps in substantial quantities.

According to a fact sheet, "Early in the building's operations, a second concrete pad was placed over the original floor because of the high alpha (radiation) counts from depleted uranium handled in the building."

After gaseous diffusion was chosen as the method of choice for concentrating the fissile U-235, the S-50 project and other pilot others were shut down.

The second life of the building was associated with the Nuclear Energy Propulsion Aircraft Project, a Cold War effort to put reactors to use in aviation and provide a round-the-world airplane that could carry the A-bomb threat.

It was during this project that the facility became known as the Beryllium Building, presumably because beryllium work was done there. Again, information as to the exact missions carried out aren't clear to me, but the building received additional contamination during this period (1946-52). The nuclear aircraft development project was abandoned for various reasons, although there are still people who believe the notion should be pursued.

For the past 40-plus years, the building has been idle, but there now is talk of cleaning it up.

Gary Person, head of the decontamination and decommissioning program at K- 25, said officials hope to have the work done by the turn of the century. That schedule will depend on getting the planning approved for fiscal 1997, and just about everything associated with that budget cycle is up in the air right now.

The 13,500-square-foot building is not in good shape obviously, and visitors aren't allowed to enter, so I can't share much information about the innards.

"In the early 1970s, a Union Carbide chemical operations crew attempted to decontaminate the building by scrubbing walls, vacuum cleaning and removing floor tiles and light fixtures," a fact sheet said. "Ventilation and exhaust ducts were sealed, and no effort was made to decontaminate their internal surfaces. When the decontamination effort proved unacceptable, the building was closed."

The Beryllium Building has remained closed ever since.

Besides taking precautions necessary to protect workers during demolition and cleanup activities, one of the main problems will be dealing with radioactive and hazardous trash generated by the work, Person said.

"We still need to find somewhere to put the waste," he said.

Frank Munger covers the Department of Energy for The News-Sentinel. His address is 73302,1254 on CompuServe; on Internet, 73302.1254@CompuServe.Com.

cc UYM, TEB, JB pre 58 Beryllium + S50

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