

## **Critical Experiments Facility and Harold Cofer's perspective**

When my research began into the history of Building 9213, I soon learned that much more had gone on there than I had known. Several people have helped by providing information. Joe Lenhard suggested that an important element of our history is tied to that building. He also made the initial contact that uncovered the research information.

Harold Cofer, retired Y-12 Maintenance General Supervisor, also provided a unique perspective from his early days as an electrician at Y-12. Harold wrote: "I was well acquainted with Dr. Callahan and the group of Engineers, scientists, etc., assigned in Building 9213."

Harold went on to say, "Willie Arnold [a trusted co-worker of Harold's about whom he will say more later in this article - Ray] and I were the first two electrical employees assigned to assist the personnel assigned to install all the equipment in the large room behind large glass windows filled with water.

"W.L. Carver, an Outside Machinist, was the mechanical employee that installed all the 'Pile' equipment. He worked very closely with Dr. Callahan's people. Bill was an outstanding mechanical employee. He was skilled as a lathe and milling machine operator, as well.

"Arnold and I ran all the cables from the Control Room to the movable part of the small reactor, connected the cables and tested the operation before it was 'loaded' as a reactor. If the cabinets that we ran the eight conductor cable to are still in place, I sure would like to see them.

"We used waxed heavy twine and laced all connections in each cabinet. [Harold recalls the precise lacing that Electricians used to route electrical and electronic wiring inside cabinets...a seemingly lost art today as almost all such wiring has been replaced with circuit boards or integrated circuits - Ray]

"After the system was tested Arnold was moved back across the 'hill' [to the Y-12 Plant's main location in Bear Creek Valley - Ray] and they sent a new electrician to work with me. He was *NO* 'Willie Arnold.' I was glad when they moved me back across the 'hill' and put me back with Arnold on the High Voltage system.

"As you probably know, Carver was promoted, first to 'AGF' [Assistant General Foreman – Ray] in ADP [Alloy Development Program or COLEX program to separate lithium-6 – Ray] then later to General Foreman in Building 9204-1 (Beta 1.) He was a good friend of mine and was someone I considered one of the better General Foremen in Maintenance. When I was first promoted to 'GF,' I provided relief for Bill when he had several bouts with sickness...I just wanted to say what a great job Bill Carver did for 9213."

Thank you Harold! I must remind you that while Harold was a young electrician assigned to Building 9213, he decided to try out the emergency escape chute that was merely a hole in the wall on the second floor that led to a large cylinder that spiraled down to the ground. He only did that once, indicating that it sure made his backside sore to slide down that chute.

Harold Cofer's career at Y-12 spanned many interesting years, and he seemed to manage to be involved in much of the excitement. He fondly recalls several people he worked with along the way. I am no longer surprised that when a subject comes up from Y-12's history, Harold either knows about it or was personally involved in some aspects of the history under consideration.

He has often cautioned me regarding the Alloy Development Program regarding the importance of protecting the history and especially that of the control room in Building 9201-4. Of course there are many other historic features of that period of the Cold War that must be preserved.

However, Harold's involvement in the early days of the Critical Experiments Facility gave another perspective. The unique perspective of the worker who actually installed the experimental equipment and made the actual connections (lacing the wire carefully) is always of value to the history. Harold's contribution is certainly appreciated.

Just when I thought I had found all the different times that Building 9213 had been operated and the various programs that had been created there, I have just spoken with the person who operated a program there during 1988–1989. What a surprise as I thought the use of that building was discontinued in 1973 until being revived in the very recent past as a Y-12 training facility.

I have also just been made aware of another experiment that took place there in 1958. The Y-12 Criticality Accident occurred June 16, 1958. To help reconstruct the exposure caused by the accident and to determine the dose likely absorbed by the workers, a small burro or donkey from the UT/AEC Agricultural Research Laboratory was exposed to the same dose as the workers. This was done in one of the Critical Experiments Facility's Critical Test Cells.