

General Groves takes charge

Colonel James C. Marshall, head of the DSM project (Development of Substitute Materials), did not make much headway, yet he did accomplish some things that lasted. Colonel Nichols being appointed as his second in command was the most significant. Marshall delayed selection of a production site and generally did not make the progress that Vannevar Bush and others expected.

Frustration at the lack of tangible action grew to the point that Bush was soon again attempting to reorganize to get things moving. The Army came to his aid when General Somervell appointed Colonel (soon to be General) Leslie R. Groves to head the project. Somervell made this decision while Bush was thinking of appointing Somervell to the job. Somervell knew of Groves' ability to produce results. He had just completed construction of the Pentagon. This decision by Somervell would ultimately prove to likely be the most significant personnel decision made with regard to the Manhattan Project.

On September 17, 1942, the same day he was appointed to lead the project, Groves and Nichols went to Vannevar Bush, who was actually unaware of the change. He was a bit uneasy with Groves and his assertiveness. Yet, he was also glad to see a man of action coming on the scene. Bush asked Styler who was this brash Army officer.

On September 18, 1942, Groves sent Nichols to purchase the 1,200 tons of uranium ore. Nichols was met by Sengier who reportedly said, "I have been waiting for your visit." Nichols negotiated a contract to purchase all the uranium ore Sengier had brought to the United States as well as all he had remaining in the Belgian Congo.

On September 19, 1942, Groves went to Donald Nelson, head of the War Production Board, to obtain the AAA priority rating, the highest rating available. This was done over the resistance of Nelson. Groves merely wrote the letter for Nelson's signature and then told him he would go to President Roosevelt if he did not sign it. The bluff worked, Nelson signed the AAA rating which enabled Groves to get the necessary priority to accomplish what he already recognized as a most vital mission to end the war.

On September 23, 1942, newly promoted General Groves met again with Vannevar Bush and this time also with Secretary of War, Henry Stimson, where the final decisions were being made for yet another restructuring to appoint a Military Policy Committee to oversee Groves' Manhattan Project. Groves, excused himself before the meeting ended, explaining that he had to catch a train to Tennessee to look at Site X. He had actually signed an order to purchase the 60,000 acres on September 19, 1942.

Colonel Marshall met General Groves at the railroad stop known as Elza, Tennessee. The site, which had been visited several times by members of Marshall's DSM project, was found acceptable by Groves.

In the few days from his appointment Groves had fixed all the major problems holding up progress. He had obtained the highest credit rating possible, purchased Site X and secured the needed uranium ore. Next he began working earnestly to start construction on Site X.

Among the first buildings to be started was the Administration Building that soon came to be known as the "Castle on the Hill." Some of the existing homes and school buildings were used for the first offices. Gates were erected on the main roads and hiring began. The 29th person hired was Ed Westcott. Ed was the official photographer. Without Ed we would not have the historical record we have of the Manhattan Project in Oak Ridge. His images are the basis upon which we are able to tell our story.

Along with the other communities, Wheat, Robertsville, Scarboro, Bethel, New Bethel, Elza and other small settlements, the New Hope community was vacated between Groves' visit in late September and December, 1942. Among those leaving their homes was the George Anderson family who had a 300 acre farm. Fortunately a daughter in this family had a camera and took several photographs of the farm and the New Hope community in general.

These photographs have really come in handy during the recent opening of the New Hope Center's Y-12 History Exhibit Hall. We have even used one of them to make a huge billboard. Through the use of these images the New Hope community has taken on a new life in Bear Creek valley and Y-12's history.

Difficulties continued to plague both the centrifuge and gaseous diffusion processes. The centrifuge project failed to demonstrate a practical method. However, it is worthy of note to realize that today uranium enrichment in the United States is moving rapidly to centrifuge technology and it is already widely used throughout the rest of the world. Yet, it did not meet the practical requirements during the Manhattan Project and was never developed.

Gaseous diffusion was seen as feasible, but the design was not complete enough to begin construction. Research continued and plans for a major construction effort progressed. The most difficult aspect of the gaseous diffusion research was finding a suitable barrier material. The system to pump the gas was understood and could be demonstrated, however, the key to the production of production quantities of uranium 235 depended on the barrier material through which the gas passed to allow the lighter uranium 235 to pass through more readily than the heavier uranium 238.

Electromagnetic separation being developed by Ernest Lawrence at his Radiation Lab in Berkley was making great strides. The modifications being made there were so successful as to cause Lawrence to push for full production. His optimism soared with each new improvement.

In December, 1942, a decision was made to go directly to the full production electromagnetic separation plant without a pilot plant. Ernest Lawrence had made significant progress in the design of the Calutrons. Groves agreed and selected Stone & Webster to do the construction.

February 1, 1943, construction began on Building 9201-1, the first building of the Manhattan Project to be built in Bear Creek Valley. Next week we will explore the early construction activities and also see the first equipment installed.

PHOTO CAPTION: General Leslie R. Groves