Preliminary steps to the Atomic Energy Commission

By October 1946, General Groves had seen the writing on the wall. The Manhattan District was destined to give up the atomic energy program to the newly created Atomic Energy Commission. He had succeeded in ending the war, but the transition to peacetime use of atomic energy was not something the Army was going to manage.

The political climate was such that civilian control of the atomic energy program was seen as the next logical step. The Army was dedicated to war and the defense of the nation, not the creation of scientific research and production activities using uranium or plutonium. So, a major shift in responsibilities had been set in motion by the passage of the Atomic Energy Act of 1946 on August 1, 1946.

It was during this time of extreme transition in 1946 and early 1947 for both Y-12 and X-10 (then still known as the Clinton Laboratory) that actions were taken to assure the presence of a national laboratory in Oak Ridge. It was not always clear that would be the end result of the many iterations and political maneuvering required to attain that status.

General Groves had set the stage, unintentionally I am sure, for the eventual achievement of that status as early as 1942. One of his first actions upon taking over the Manhattan Project was to acquire land for a site and make decisions regarding what would go where.

After selection and acquisition of the Oak Ridge site, Manhattan Project officials decided, on December 10, 1942, that a more remote area was desirable for the major plutonium production reactors and associated chemical-processing facilities. This decision was made because the Oak Ridge site was becoming too much of an example of “putting ones eggs all in one basket” and the fear that disaster striking one site might damage others.

Remember, plutonium was just being thought about. The scientists knew it could be produced in a reactor, but there did not exist any appreciable quantities of the material at the time of these decisions.

The experimental atomic pile and the first controlled nuclear chain reaction had taken place in Chicago on December 2, 1942 - on a squash court situated beneath the University of Chicago's football stadium. The next step was to demonstrate that a full scale reactor could in fact be built and controlled.

The Oak Ridge site was deemed suitable for locating the pilot facilities for plutonium production. Thus the Graphite Reactor came to be located in Bethel Valley. This decision ultimately resulted in the Oak Ridge National Laboratory we know today being located here in East Tennessee.

Although the Metallurgical Laboratory management wanted those plutonium facilities to be located in the Argonne Forest, at the outskirts of Chicago, that desire did not carry the day. General Groves decided that a safer location for the pilot plutonium production reactor and associated separation facilities would be at the Oak Ridge site.

On such decisions the future potential for economic development of entire regions of our country may be determined. Although it was not without struggle, a great national laboratory now surrounds this small “semi-works” intended only to prove that plutonium could be made in an industrial size graphite reactor using uranium as fuel.

Also note the danger element and the concern for safety in General Groves’ decision. See the struggle beginning for where these research and development facilities would be located? That same struggle picked up again in 1945 (after the war ended) and in 1946. Much of it was not settled until after the management of atomic energy passed from the military to the Atomic Energy Commission.

National laboratories were being promoted across the nation. Basic science research was gaining strength on the huge success of the Manhattan Project. Many universities and large cities desired to get laboratories located nearby to take advantage of this growing interest in scientific research.

Meanwhile, Y-12 continued to transition from the electromagnetic separation of uranium to the production of uranium metal. It was slow going at first and the effort to place the calutrons in standby continued throughout most of 1946. In the course of the year, it became more and more apparent to the Y-12 folks that the Alpha calutrons would never be used again. The efforts to remove them and reclaim the silver took on greater priority.

As many of the buildings were vacated, and the mission of Y-12 no longer held the research and development elements, a transition of organizations began to take place. As the Clinton Laboratory grew in size, primarily through locating in the now vacant buildings at Y-12, Tennessee Eastman Company continued to reduce its workforce as Y-12's electromagnetic separation of uranium ceased to be its mission.

Next we will continue to examine the high level interplay regarding the control of atomic weapons. Not only was the highest levels of government in the United States struggling with what do now, attempts were soon made to engage other countries in the discussion regarding international controls of atomic weapons.