

Y-12 and dramatic changes of early 1980's

If you ask anyone at Y-12 about change they, will readily tell you that they have seen many changes while working here, even a short time. It can be said that we are going through some of the most radical changes now, and expected changes in the near future may well exceed anything since the Manhattan Project. It might, however, be good to keep in mind that the change that is happening to one right now is most often seen as the most significant one experienced. We are just wired that way.

Take, for example, the substantial changes that happened to Y-12 in the early 1980s. Here was a large manufacturing facility that was poised to help the nation win the Cold War. This was done by leading the way in machining uranium and other materials into components for nuclear weapons at such a tremendous pace that the Soviets were unable to keep up. The nuclear weapons race was literally a one-for-one type accounting of who had the most nuclear weapons and who had the most powerful (largest) thermonuclear weapon, as well as the most effective delivery system.

It was during the 1980s that Y-12 won the LEAD (Leadership and Excellence in Application and Development in Computer Integrated Manufacturing) award for pushing the state-of-the-art in machining. There were many processes doing amazing things to metals and other materials such as plating ultra-thin coatings of one material on another, welding with precision and accuracy beyond anything seen before (electron beam welding was commonplace), and chemical processing and reprocessing to reclaim highly enriched uranium from all items used to process that highly valuable material.

This atmosphere of excellence in manufacturing had been established in the 15 years that Jack Case was the Y-12 plant manager. Upon his retirement on January 29, 1982, the responsibility was placed in Gordon Fee's hands as the replacement Y-12 plant manager for long-time and well respected Jack Case.

Jack's leadership style was one where he knew exactly what was going on at the working-floor level as he was once a tool and die maker and had come up through the ranks at Y-12. He was seen by the workers as "one of them," as Bill Wilcox said of Jack Case in a video interview. Case relied on that connection to the workers to supplement his management information chain.

Several other early managers at Y-12 had held positions of increasing responsibility and had experience on the working floor, but by the 1980s that was becoming more and more a rarity. Professional managers were becoming more common, and schools for leadership taught that a generalist manager could manage any work process using some specific managerial tools.

The key was strong leadership, a clear vision of the desired future and the ability to convince followers to go with the leader through the changes needed to become even more effective at whatever processes were being managed. I saw Gordon Fee as a very effective manager who could manage the many missions at Y-12 during the 1980s. He could keep multiple projects in his mind and ask very penetrating questions because of this great mental capacity to balance so many balls in the air at once.

Soon after Gordon took the reins of Y-12 in 1982, the steady growth of manufacturing capabilities and technical expertise development at Y-12 did not slow but rather continued to expand. To this management of very complex chemical and metal processing were added numerous emerging environmental issues that seemed to force themselves on the management team from every possible direction.

In recalling those days, Gordon has said, "I was at times in fear of being put in jail." The changing laws and environmental regulations were being applied to Y-12, many of them for the first time.

In 1983, a new Department of Energy Oak Ridge Operations manager, named Joe LaGrone, came to Oak Ridge from California. For the previous 30 years, DOE ORO and its predecessor agencies had had only two managers, Sam Sapirie, from 1951 to 1971, and Robert (Bob) Hart from 1972 to 1982. When LaGrone arrived, change of the most radical kind soon followed.

The story of how he came to be selected to come to Tennessee is an interesting one. He was sent here to lead the implementation of the needed changes. The new environmental regulations were sure to be hard to implement, and bringing the Oak Ridge Operations into compliance was going to take a lot of concentrated effort. He knew he was coming into a hotbed of issues.

One of the first things addressed was the East Fork Poplar Creek situation at Y-12. There were 222 unpermitted outfalls into the headwaters of that "industrial ditch," as it was commonly known. His first observation upon walking along the creek with the state of Tennessee representatives and the Union Carbide Nuclear Division management of Y-12, was to casually remark, "this sure looks like a creek to me." Of course, the state folks agreed with him, and the Y-12 management no longer referred to East Fork Poplar Creek as an "industrial ditch."

Having been placed in two of the key leadership positions in Oak Ridge in the 1980's, Joe LaGrone and Gordon Fee saw the need for radical change to meet the environmental compliance issues and proceeded to team up to make that happen. Much of the funding needed was not programmed and thus required them to seek additional funds for the necessary improvements and additional organizational changes as well as added technical staff support required.

This all had to be done without adversely impacting the mission Y-12 had to help win the Cold War. It was an amazing time at Y-12 during the 1980s. Other managers and leaders had to adapt and had to convince their people of the importance of the radically new approaches required to assure environmental compliance while continuing to meet production demands. Y-12's "Can-Do" attitude was once again the key to making it all happen.