

## **Oak Ridge Centers for Manufacturing Technology: Dave Beck tells how it all started**

I well recall what led up to the emphasis in the 1990's on growing the Work for Others (WFO) efforts at Y-12. As early as 1991, we were reducing staff at a pace only exceeded by that at the end of the Manhattan Project, when Y-12 reached its lowest number of workers at 1,700. In the 1980's the number had reached 8,000, but in a single day in the early 1990's, I personally handed out 35 layoff notices known as "pink slips."

With the end of the Cold War when the Soviet Union collapsed in 1991, Y-12's mission changed drastically. The decisions made to terminate the production of new nuclear weapons meant the end of several years of sustained production of new nuclear weapons secondaries at Y-12.

Facing the most significant reduction in force since the 1940's, Y-12 intensified its search for new missions that would allow the expertise built to help win the Cold War to be sustained and the technical knowledge and experience to be used for other useful purposes. Both the Y-12 contractor, Martin Marietta Energy Systems (MMES), later Lockheed Martin Energy Systems, and the Department of Energy's Defense Programs (now the National Nuclear Security Administration), were scrambling hard, looking for ways to offset the loss of new nuclear weapons component manufacturing.

It was a most unusual time for Y-12. For years, Y-12 management and oversight groups were concerned with meeting the nuclear weapons production schedule, and now only a few items were being requested to be manufactured for special situations with very specific weapons. The workload was nothing like the major output required in the 1980's. Idle equipment sat everywhere, and people were often without direct mission work to do.

Not a good climate for a workforce. Everyone realized that major change was coming. In this atmosphere of uncertainty came the idea to expand the WFO program. Dave Beck was one of the key MMES managers who was caught up in this transition thinking and was instrumental in promoting the change rapidly enough to make a difference.

Dave was there in the very beginning, and I appreciate his sharing with us how it all began. Here is what Dave said about the Oak Ridge Centers for Manufacturing Technology:

"In the fall of 1992, Bill Thompson, the director of Weapons programs at Y-12, and Jeff Bostock asked me to figure out how to substantially grow Work for Others given the obvious pending downturn in the weapons program. [Jeff Bostock had just taken over from Gordon Fee as the Y-12 Plant Manager after Gordon had become President of Martin Marietta Energy Systems, taking over from Clyde Hopkins in May 1992. – Ray]

"This action was prompted by the fall of the Berlin wall in 1989, the closure of Rocky Flats in 1989, the signing of START I treaty in 1991 and expedited by the signing of START II treaty in 1993. Jeff and Bill had the vision that we had to transform Y-12 again as we had done many times previously in order to help the country and the workforce. I think I am right to say that Y-12 experienced five downsizing actions in about seven years in the 1990's. We grew WFO from about \$10M to over \$100M by 1999.

"The WFO goal was to replicate some of the excellent work done by Sam Murphy, the Seawolf Program Manager, and expand our horizons with other customers. Initially, it was clear that the only way to move quickly was to get everyone involved. We needed a partnership with ORNL, so we formed ORCMT and asked Dave Bartine (a senior manager at ORNL and just off the Strategic Defense Initiative) to be the co-chair of ORCMT.

"We desperately needed the applied technology present in Engineering Technology Division of ORNL combined with Y-12's Development Division to be successful. Another partnership we needed was the support of the unions. We asked the union to give us an electrician and machinist business development person from their ranks to help be part of the team. This partnership with the ATLC [Atomic Trades and

Labor Council] was essential. We partnered with the State, with ETEC [East Tennessee Economic Council], with anyone or any entity that was interested in making a difference for America.

“Some of the things that grew out of this ‘can do’ team were ‘Manufacturing means jobs,’ ‘We solve tough Manufacturing Problems,’ ‘fabricating F22 Titanium parts for the Lockheed Skunk Works,’ ‘the prototype amphibious Assault Vehicle for General Dynamics,’ ‘son of Seawolf propulsor,’ ‘the hospital in a box for battlefield triage,’ ‘virtual training for hazardous and complicated technical tasks,’ ‘[The Manufacturing] Skills Campus... [What a great list of accomplishments! – Ray]

“A couple of highlights were when Jeff Bostock took all the [initial] heat from Washington for providing us \$30M of seed money to get started. Hazel O’Leary [when she was the Secretary of Energy] gave us \$20M along the way to help create jobs in the community, and we had real numbers and success stories.

“Fred Thompson added legislation to name Y-12 the National Prototype Center which needs to be further developed. We had unbelievable support from the community during some really tough times - a lot of tremendous Volunteers!

“In six years we tracked over \$1B in private sector benefits through our 1-800-4USA number as declared by our customers. I knew we had arrived when I was told that the director of ORNL was complaining to my boss that ORCMT was becoming better known and had more publicity than ORNL itself!

“I doubt that this was true since ORNL is such a great organization, but it was nice to know we were getting attention. Perhaps the most important thing we did was to provide Y-12 hope and a vision during tough times. While we had a lot of layoffs, I estimate we saved over 1,000 jobs at Y-12 alone and probably 300 at ORNL, all the while making the community, state and the nation a better and safer place to live and work.”

Now that is an excellent synopsis of how the Oak Ridge Centers for Manufacturing Technology came into existence and what developed from the original idea. Hazel O’Leary, commenting on ORCMT’s success, stated, “The Oak Ridge Y-12 Small Business Initiative is a model program and needs to be replicated.”

I think you will agree with me that it is obvious that Dave Beck put his heart and soul into the task he was asked to do, and I am sure he would quickly say he could not have done it without lots of help. However, his “blue sky” thinking and positive approach to accomplishing anything they could dream rubbed off on others, and a whole team (union and management alike) came to see they really could make a difference. They solved tough manufacturing problems routinely. What a success story!