Superior Leadership

As Chief Safety Officer, Dr. Kayser successfully led a transformation in the NIST safety culture over the course of the past 3 years, dramatically improving the way in which management and employees approach safety in their everyday work lives.

The need for a cultural change first became evident following a major safety incident in June 2008 when plutonium was accidentally released at the NIST Boulder Laboratory. If not handled appropriately, the spill threatened the health and safety of NIST employees and citizens of the surrounding community as well as threatened to jeopardize NIST’s reputation as a safe world class laboratory. Dr. Kayser was assigned to the Boulder site to oversee cleanup activities, to work with employees, community leaders, and other stakeholders to assess the damage and to repair NIST’s reputation. Dr. Kayser spent a year in Boulder working with the Nuclear Regulatory Commission to assist in their investigations, hearings, and findings, and to draft subsequent license amendments. He engaged a Nuclear Regulatory Commission licensed contractor, EnergySolutions, to successfully decontaminate the lab where the spill occurred. In addition, Dr. Kayser served as the interim Boulder Labs Director after the sudden departure of the incumbent and worked diligently to fill essential leadership positions. In his interim role, he communicated constantly with the City of Boulder, ensured that the City’s wastewater notice of violation was properly addressed and that the City’s safety queries and requests were answered in a timely and accurate manner. He also led extensive Department of Energy safety audits of all Boulder laboratory spaces. Lastly, he assisted in developing a “Boulder Safety Action Plan” that served as the guide for improving the overall safety of Boulder operations.

At the time of the spill, NIST employees and management often considered safety to be an ancillary work function and not a part of day to day operations. Upon his return from Boulder in June 2009, Dr. Kayser was appointed Chief Safety Officer and quickly led the way to effectively transform the way in which NIST employees approached safety; thus ensuring NIST successfully rebuilt its reputation as a safe world class laboratory.

In order to achieve this essential cultural change, Dr. Kayser created a strategy to better understand the existing safety climate. He established NIST Safety Colloquiums to engage researcher staff in a medium they were familiar with; engaged NIST staff at all levels in the organization to develop effective occupational health and safety programs in the NIST environment; and conducted a 2010 Safety Culture Survey to gain an understanding of current perceptions and attitudes toward safety throughout the NIST community. Dr. Kayser organized a workshop for identifying core competencies for success at NIST in the areas of safety, health, and environment (over half of the participants were from Operating Units outside of Dr. Kayser’s organization) and also organized the 2nd NIST Blue Ribbon Commission on Management and Safety as an external audit to examine how safety is managed and implemented NIST-wide. In addition, Dr. Kayser developed strong relationships with the Department Of Energy and Oak Ridge National Laboratory to “unofficially” benchmark NIST’s developing safety programs with external programs of some maturity and to exchange ideas and best practices.

In other examples of his dedication to improving the safety culture, Dr. Kayser supported the creation of a Safety Representatives Council to provide NIST staff with collateral duty safety responsibilities (Division Safety Representatives (DSRs)) with a regular forum for sharing knowledge and experiences related to safety, health, and environment. He encouraged the creation of staff-initiated safety committees in specific subject matter areas to reinforce NIST staff’s individual sense of safety ownership (*e.g.*, Boulder Cryogen Safety Committee, Laser Safety Committee, and Nanoparticle Safety Committee).He also chairs the Ionizing Radiation Safety Committee whose function is to assist the NIST Director in the oversight of the operations and activities of NIST’s radiation safety programs with jurisdiction over all potential occupational exposures at all NIST facilities except for those operations under the Nuclear Regulatory Commission (NRC) reactor license.

Dr. Kayser developed the ‘Six Dimensions of Safety Culture’ as foundational principles for improving the safety culture. The six dimensions are as follows:

1. Leadership – ensuring senior leadership is committed to improving safety
2. Systems – ensuring the right systems are in place
3. Behaviors – demonstrating the right behaviors to get the job done safely, and making sure safety is a core value
4. Employee Engagement – understanding how employees feel about their contributions towards safety
5. People – involvement by all levels of staff
6. Conditions - ensuring the right conditions are in place for safe working environments