



360 Performance Review

A series of constructive critiques of LLNS and SPSE-UPTE.

World Class Science Requires World Class Support

Bill Smith, President-Elect

LLNL has long been a leader in world class science, beginning with the leading role it played in the modernization of nuclear weapons and continuing through today with internationally recognized work in high energy-density physics. The Lab succeeded because it attracted the best scientists, the best engineers, the best technicians, the best skilled trades employees, and the best administrative support.

LLNS management is endangering our shared tradition of world class support for science and engineering. To reduce overhead costs, they have been deferring maintenance, which has reduced our skilled trades member's ability to support critical systems. Critical systems support nuclear weapons, experiments with high energy and infectious bacteria, and the world's fastest computers. These systems require precision machining, spark-proof electrical supply and reliable ventilation and cooling.

Deferred maintenance, an example of which is to run exhaust blowers with minimal maintenance and replace them after they fail, requires flexibility in application. Management's implementation of deferred maintenance policy has been rigid and short-sighted, resulting in failures that routinely interfere with LLNL's mission and create safety hazards.

Many of us have grown to expect, but not accept, that our support systems fail regularly. Rarely does a week go by without a notification that researchers somewhere onsite must cease their work in fume hoods or biosafety cabinets on short notice as some mechanical or electrical failure necessitates immediate – and disruptive – emergency roof access. In my own building – one of the newest and greenest buildings on site – we expect regular malfunctions of our HVAC system. As I write this my building's HVAC system has not been operating for several days and the environment on the top floor, especially near the large center atrium, has become more like a sauna than an office.

Management's run-to-fail policy for building boilers has created safety hazards. We are lucky that improper boiler operation and service by unqualified staff has not yet seriously injured anyone. Our management cut the number of qualified boiler technicians from thirteen to five in the last few years. At the same time they encouraged or allowed facility coordinators to restart boilers on their own when skilled boiler technicians were not immediately available – at least once with explosive results, including blowing off the conical cap on top of an exhaust stack.

A rigid run-to-fail policy may be penny wise for overhead payroll reports, but it is pound foolish for meeting sponsor deadlines on budget. For example, when a boiler is operated or maintained improperly and explodes, LLNS incurs extra expense to reduce its liability for major repair work. LLNS reduces its liability by contracting with an outside firm to certify that a repaired boiler is safe to operate.

Our members report that unbudgeted expenses associated with many such failures are offsetting management's planned savings in maintenance payroll costs. These non-payroll costs are less visible in facility and support manager's performance metrics and include: 1) sponsored project cost increases due to the unavailability of critical equipment or facilities when needed; 2) higher costs associated with unscheduled, rather than scheduled repairs; and 3) costs to bring in outside parties to perform and certify repair work.

World class management would have reduced the number of skilled boiler technicians after, rather than before, implementing the Bay Area Air Quality Management mandate to upgrade or replace old boilers. The result would have been more reliable operations and reduced carbon emissions with fewer boiler explosions and service interruptions. At his January all-hands meeting, former Director Bret Knapp could then have spotlighted our boiler maintenance program as an example of how we at LLNL "use the best-available scientific information to make rational decisions on appropriate policy responses to the climate change problem," as our own renowned climate scientist, Ben Santer advises on the Lab's own website (https://www-pls.llnl.gov/?url=about_pls-atmospheric_earth_and_energy_division). Instead, our former director joked awkwardly about his taking the low road and upgrading the boilers only after regulators threatened to jail him.

To reverse the slow decline in the services that support our world-class science, we must insist that our management enable, rather than disable, our administrative, technical and skilled trades employees. The next time you experience a support system failure, tell your supervisor, your facility manager or your division chief how that failure impacts your work. Let SPSE-UPTE (spse@spse.org) know whether their response is to push for world class support or simply a defense of the status quo, especially if the failure affects safety. SPSE-UPTE and LLNS management staff a joint safety committee that meets monthly. We can put your issue on the agenda.

Join Us

For four decades we in SPSE have worked to make our Laboratory a better place to work by helping fellow employees and demanding fairness and transparency from Lab management. Our effort has never before been more important, and if you share this belief please go to <http://spse.org> and click on "Join Us."

