



Benchmark

F&SS News and Progress

May-June 2016

F&SS leaders tailor Battelle 8 Principles of Safe Conduct of Research to each division

All F&SS divisions are finding ways to implement the [Battelle 8 Principles of Safe Conduct of Research](#) at the working level through coordination by a new forum, the Injury Prevention Council.

The council will directly engage employees and address safety concerns through Injury Prevention Teams (IPTs) across F&SS to support efforts to improve the safety culture and drive down injuries.

In a recent interoffice memorandum to division directors, Carlo Melbihess, F&SS director, wrote that the teams' purpose "is to openly discuss progress on our safety culture improvements, actively address our safety concerns and issues, and identify opportunities to drive down risk within the organization more effectively. It is my expectation to see safety engagement and ownership at the working levels of F&SS and believe this is the most effective way to get it going."

Each IPT will elect a represented employee to participate on their team. A represented employee also will be elected to participate in the F&SS Directorate quarterly IPC meetings chaired by Ed Anderson, F&SS deputy director.

"While all F&SS employees are encouraged to attend EST (Employee Safety Team) meetings, I expect everyone to tailor the eight principles with your people in your respective areas and share them with the F&SS Management Team," Melbihess told division directors in the memo.

At the quarterly council meetings, employees and managers will discuss concerns, issues, needs, initiatives, and actions, and then document actions through LabWay, INL's web-based tracking system.

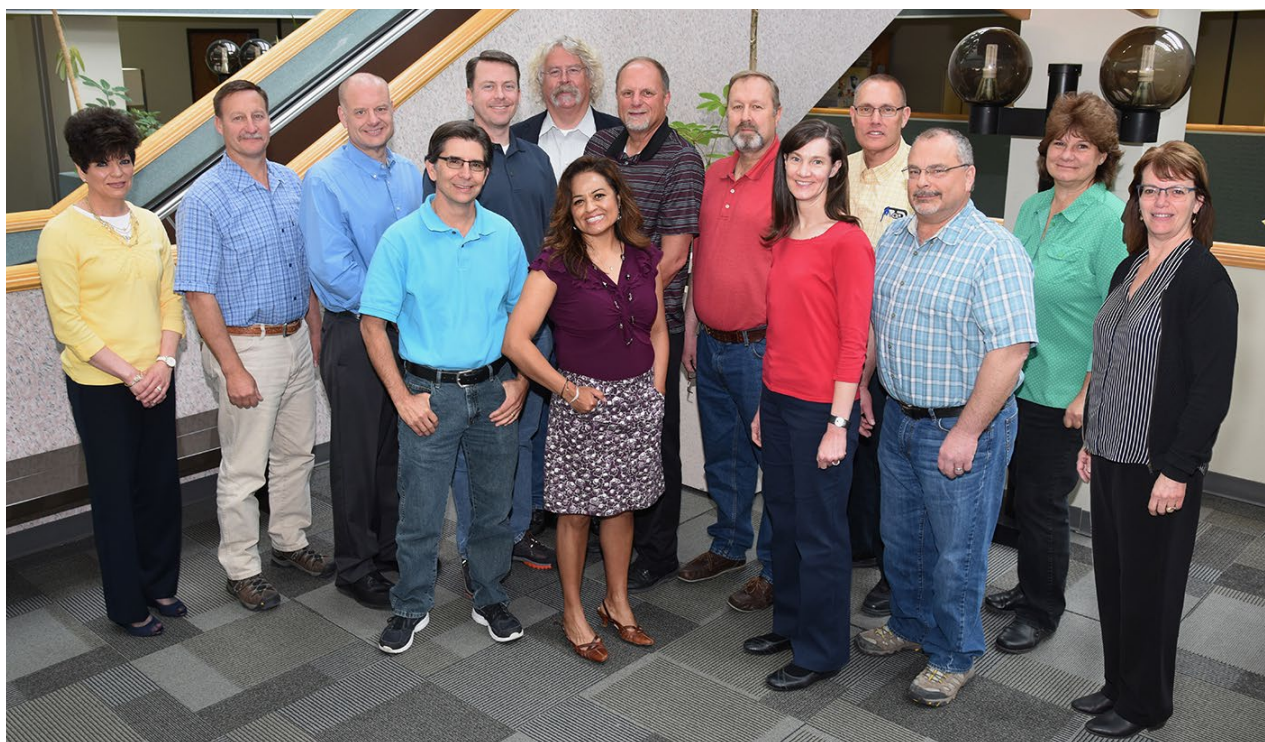
The IPTs will use and embrace the 8 Principles of Safe Conduct of Research as a guide to review the specific work activities and hazards of the teams' activities. Graduates of LOSA (Battelle's Laboratory Operations Supervisor Academy) will be valuable resources in assisting employees to shape the eight principles to their organizations.

"We recognize and celebrate each of the IPTs and the ways every directorate is putting the eight safety principles into practice in their workplaces," Melbihess said.

Here are random samples of ways the divisions plan to incorporate the eight principles for a strong safety culture.

Campus Development Office

We actively manage issues so consequences are mitigated. We value the influence we have in establishing a safe, healthy, and sustainable work envi-



Campus Development Office Injury Prevention Team members are: back row, left to right, Connie Andersen, John Reisenauer, Chris Ischay, Pat Dodd, Van Briggs, Tim Beseris, Jon Tillo, Bill Buyers, Debby Tate; front row, left to right, Rob Logan, Jacqueline Dedic, Maryl Fisher, Ernest Fossum and Lisa Sehlke.

ronment. Staff raise safety concerns because trust permeates the organization. Cutting-edge science requires cutting-edge safety. A questioning attitude is cultivated. Learning never stops. Hazards are identified and evaluated for every task, every time. A healthy respect is maintained for what can go wrong during planning and execution of campus planning activities. We have open discussions – brainstorm, accept constructive criticism, use previous lessons learned.

Technical Support Services

Strong safety foundations are the building blocks of project, construction and service subcontract management. Everyone has stop work authority, and we expect it to be used when there is uncertainty about the ability to safely conduct work. What we accept becomes the new standard; do not accept unsafe behaviors ever. Our leaders not only set the expectations for safe performance, but they set the standard through their actions. Respectfully raising concerns and reporting issues in a timely manner is encouraged and is the only way we can build a relationship based on trust that will help us learn and improve as an organization. We can't fix what we don't know about. Asking questions is not a sign of weakness, but a sign of empowerment. Ask questions until you are comfortable with how to proceed. Questioning attitudes are encouraged and respectful dialog can often present opportunities to

advance the understanding of all parties involved. Opportunities to improve can be found in every project, contract, or work task. Time pressure, whether real or perceived, can often distract us from the ultimate goal of performing our work in a safe manner. Never allow your safety to be compromised by anyone or anything.

REC Facilities & Operations

Everyone is involved with the interest of safety of the whole team. We are open to perspectives other than our own. Experience, understanding, and a questioning attitude leads to safe work. Staff raises concerns because customer satisfaction is a value. If you take pride in the work you are accomplishing you are more likely to be diligent in its safe execution. Human error is inevitable, but it's what we do to prevent the same thing from happening again. If people are constantly learning new and better ways to do work safely and efficiently then it will help build trust between the workers and management. Communication is key. Sometimes we assume everyone is on the same page and things have been taken care of by someone else, so we open ourselves up to failure. We work together to improve facilities, performance and efficiency. Each of us depends on and works with multiple disciplines to achieve labwide and individual goals.

Continued on next page

FACILITIES AND SITE SERVICES

F&SS

F&SS Supervisor forums achieving results



Max Wolf speaks to peers at a recent front-line supervisors forum.

Max Wolf and Randy Williams are the current co-chairs of the Facilities and Site Services (F&SS) Quarterly Supervisor Forums, which are founded on Battelle's 8 Principles of Safe Conduct of Research promoted through Laboratory Operations Supervisor Academy (LOSA) training. The vision for the forums is: "To promote voice, unity, and shared strength/resources to grow as an individual and as a group by building a culture based on ownership and trust."

Wolf and Williams became co-chairs of the Supervisor Forums after they attended LOSA training and were deeply impressed with what they learned. Now that they have worked through two forums with front-line supervisors from across the F&SS organization, they are even more convinced this training delivers results.

Battelle's LOSA training is partly built around role-playing scenarios recreating actual problems that peers participate in and work through. "The scenarios are based on real-life work problems," Wolf said, "such as difficult employees, and other work-place issues. The forums provide a great opportunity to get supervisors together to confront issues we all face."

Most attendees have said that the scenarios are the

most helpful part of the forums. Working together, front-line supervisors gain insight from people who supervise a wide variety of work disciplines, from heavy equipment operators to craftspeople to office workers.

"I am very pleased with the feedback that we have received from our peers," Williams said. "We are trying to use real-world, INL problems in our teaching, and forum participants are connecting with the content of the training. The majority of comments are positive. I think we are breaking past most of the jaded mojo that sometimes comes with 'new' training or ideas."

The forums also give supervisors the opportunity to tell management where their knowledge gaps exist – they are a perfect venue to fill the gaps. Subject matter experts are brought in to explain and answer questions.

"On the human performance side, feedback is showing we are hitting the issues that people struggle with," said Williams. "Confronting performance and behavior, good communication, how to get help, legal issues, the Employee Assistance Program, etc. On the slower side, we are working to change culture. Ultimately, we want this training to benefit the day-to-day experience of every supervisor's job. We are going in the right direction."

Continued from front page

Sitewide Facilities and Operations

Work activities are undertaken with understanding by each of us that we are responsible for our own safety and the safety of others. We know before we start the job that we have everybody's "buy-in." We lead by example. We trust in our teams. Qualified craftsmen trust each other to be qualified and competent. We actively pursue new processes, tools and techniques to improve our safety performance. We ask questions about the job we are going to do before we start, even if it means taking more time. We continuously provide suggestions and feedback to each other to improve ourselves. We never take what is in paperwork or previous hazards to be the only hazards; we thoroughly walk down every job before work starts. We are our own last line of defense to ensure safety. We never let our guard down and watch out for each other on a daily basis.

Mission Support Services

As staff members, we are accountable for safety. Our organization has safety professionals available to support us. Use them. We should know the hazards that our work activities create better than anyone else. If we don't, ask questions until we do. Human error is inevitable, but we can reduce its likelihood and consequences. Being in work areas and engaging staff is the best way to understand whether our staff are prepared to work safely; coach, mentor, and reinforce expectations about safety during such engagements. Leaders strive to keep safety at the forefront by being conscious of the complexity of the work, the preparedness of their staff, and the pressure to perform. We can't fix what we don't understand or are not aware of; raise concerns and report problems or things that "just don't look or feel right." Anyone can respectfully challenge unsafe behavior regardless of his or her position in the organization, and these challeng-

es are accepted graciously as an opportunity to improve. Bottom line – Stop when unsure, protect yourself and watch out for your co-workers, and keep asking questions. A conservative posture is assumed when the impact of hazards is uncertain. Safety is viewed as integral to the work process and not simply as compliance. Anomalies are thoroughly investigated and mitigated. Opposing views are encouraged and used to advance everyone's understanding. We know our issues better than anyone else: reflect on them and assess lessons learned. Mistakes are treated as opportunities to learn. Procedures and safety components are constantly reevaluated to ensure they still provide the protection assumed. "Work-arounds" are viewed as unnecessarily taking on risk and are avoided. Avoid complacency; routine tasks can result in serious injuries or operational upsets. Time pressure is a setup for mistakes; it is openly acknowledged when present and attention to safety is heightened during those times. External reviews and management engagement are viewed as opportunities to challenge assumptions and reinforce what is right.

Applied Engineering

No matter what your job, you have an important role to play in your company's safety culture. Our

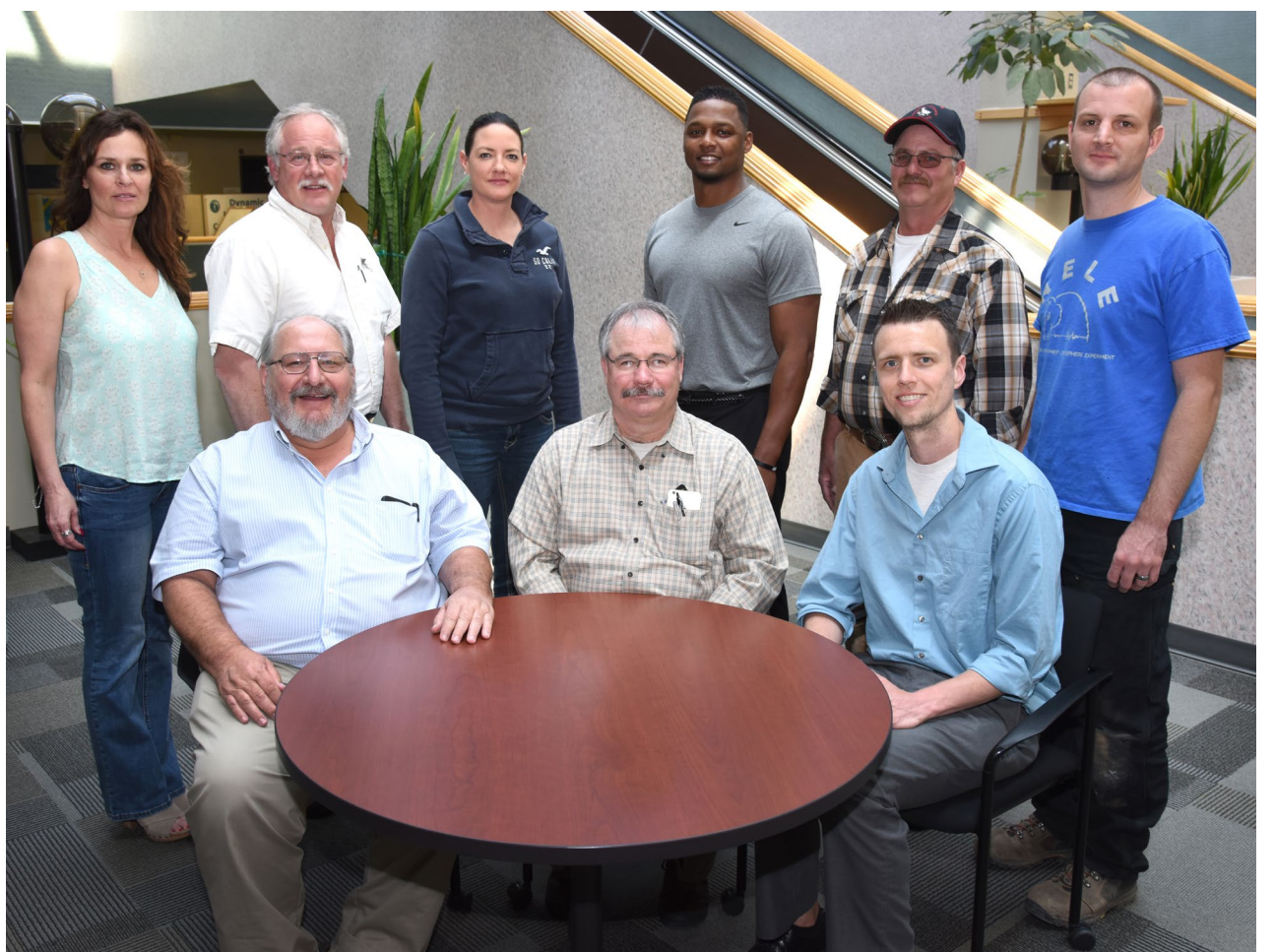
five principles of a thriving safety culture: 1. Our teams raise safety concerns and foster a climate of trust and mutual support for one another. 2. We discuss the "what-ifs" and are better prepared for the unexpected. 3. We challenge the status quo in safety by striving for excellence in service. 4. We are personally responsible and committed to ensuring our safety and the safety of others. 5. Learning never stops.

Sitewide Utilities

In Power Management, no one is exempt from their commitment to safety and the protection of workers. Our behavior and attitude create the culture. Power Management leaders exhibit a behavior that is a safety standard. Leadership engages workers. They coach, mentor and reinforce safety. They know their workers' limitations. Raise any concerns and report problems that are encountered. Gut feelings are real and should be communicated. Never miss an opportunity to improve or share your understanding of something. Stay away from "that's the way we have always done it." Make mistakes opportunities to learn and then share it. Complacency is probably the biggest item for eroding our safety skills. Making assumptions contributes nothing. Distractions come to us in every shape and size.

[Other REC Facilities & Operations IPT photos](#)

[Division Team Posters](#)



Applied Engineering



Above, REC Facilities and Operations



Left, Technical Support Services



Above, Mission Support Services



Above, Sitewide Utilities



Right, Sitewide Facilities and Operations

DOELAP opens: New facility preparation complete

The new Department of Energy Laboratory Accreditation Program (DOELAP) facility was formally opened with a ribbon-cutting ceremony on March 24. John Kotek, Acting Assistant Secretary for DOE's Office of Nuclear Energy, and Ray Furstenau, Associate Principal Deputy Assistant Secretary for Nuclear Energy, were on hand to do the honors.

The new 5,000-square-foot facility, west of the Radiological and Environmental Sciences Laboratory (RESL), will replace the existing Dosimetry Irradiation Facility, CF-638 bunker, at the Central Facilities Area. The new lab will accommodate the DOE program in a modern, habitable, radiological facility furnished with functional environmental controls and equipment to allow for continued operations of DOELAP. The RESL, certified as a National Institute of Standards and Technology reference laboratory that assures the quality and stability of key laboratory measurement systems throughout the DOE complex, administers the DOELAP for external dosimetry under the auspices of the DOE Office of Health, Safety and Security.

Although facility construction was complete in September 2015 (see Benchmark, November 2015), vital components had to be installed before the facility could begin operation. The first of several radiation sources was successfully unloaded and installed in one of the DOELAP irradiators in early February, paving the way for subsequent source receipt and installations.

When the 830-curie Cesium-137 source arrived, the unloading team performed a dry run of the unloading operation to gain a better understanding of equipment needed, and get it put together, marked and ready for job execution. The team included INL workers who did the actual unloading, radiation control technicians, representatives from Hopewell Designs, the irradiator vendor, and DOE representatives who observed the operation.

An unexpected condition was encountered during the dry run when the cask cover was removed and no one recognized the material directly below the cover. A few calls were made, and the team learned that Neutron Corp., owner of the cask, had included extra neutron spacers, which were installed when



John Kotek and Ray Furstenau of DOE headquarters cut the ribbon at the grand opening of the new DOELAP facility. Joining the celebration were (from left) Anita Bhatt, DOE-Idaho RESL director, Doug Vandel, DOELAP project manager, Craig Richins, DOE-Idaho DOELAP project director, Scott Lyman, REC Facilities & Operations director, and other DOE-Idaho RESL employees.

the source was loaded and shielded at the source manufacturer, Southwest Research Institute in Texas.

Following the dry run, the team decided to wait until the next day to unload the source. Anita Bhatt, DOE-Idaho RESL director, told the crew, "We have waited fifteen years for this – another day won't make a difference." Joy Kibbee, INL building specialist, appreciated the extra time. During the dry run, the workers rigging the source container to the overhead crane worked from ladders and had to stretch over the top of the cask to reach the equipment, occasionally losing three-point contact. The team discussed using spotters to help the workers on the ladders, but RadCon techs rejected the idea because of ALARA (As Low As Reasonably Achievable) safety concerns. Kibbee contacted INL's carpenters and had steps built, solving the problem and making the job much safer.

The crew began work Feb. 3 with a second pre-job, discussing dry run results and the work plan to remove the source from the cask. The actual unloading of the source went off well. The source was loaded into the G-10 irradiator, which was moved to its permanent location in the DOELAP facility.

Left, Hopewell Designs employees remove the lid of a shielded containment vessel holding an 830-curie Cesium-137 source, while DOE-Idaho RESL and BEA personnel monitor the work.

Jim McAuley, DOE-Idaho Nuclear Energy Radiological Control subject matter expert, commended INL's approach to the source unloading and installation. "BEA senior management set the right tone during the pre-job, letting the workers know it was okay to take their time and get it right." Bhatt agreed, saying, "Good communication was key to this work. The pre-job and dry run were extremely helpful. Everyone had a right to talk, with no fear of embarrassment or ridicule for asking questions."

Dave Lively, acting facility complex manager, expressed his pride in the team and its productive pre-job briefing with lots of good questions and input. "They performed a good dry run, which brought out some issues. They developed solutions and finished the job safely and successfully."

Since that first source arrival, the team has successfully unloaded and installed a total of six radiological sources.

Sitewide Utilities update

Catch up on the latest Power Management achievements in the April 2016 issue of the [Sitewide Utilities newsletter](#)

Earth Day celebration promotes sustainability

Thousands celebrated sustainability at the Idaho Falls Earth Day event April 23 at the Tautphaus Park hockey shelter and Idaho Falls Zoo.

The Earth Day celebration promoted an awareness of protecting the environment and its resources to create a better future for the world, one of INL's primary goals. Efforts were made this year to increase the waste diversion from the event by collecting food waste and recyclables. Approximately 53 percent of the volume of waste generated at the event was diverted from going to the landfill.

As a primary and organizing sponsor of the event, INL showcased alternative fuel/hybrid buses and a Road Scout vehicle at the 2nd Annual Clean Transportation Show to demonstrate ways INL is evolving into a sustainable laboratory. Robert Podgorney



explained the lab's role in FORGE research and geothermal energy.

Many lab employees participated in the family-friendly activities including games, crafts, raffles, conservation education, live entertainment, food, and exhibits by local businesses and organizations. Admission to the hockey shelter was free, and admission to the zoo was free for children 12 and under with a paying adult and canned food item (to be donated to the Idaho Falls Food Bank) or one of the following items for recycling: Cellphones, printer ink cartridges, used coats, used books, used bikes, electronics, rechargeable and alkaline batteries, and eyeglasses.

Chris Ischay, Sustainable INL Program manager, explained why sustainability is important to INL in an [opinion page column](#).

Leadership team focuses on road map for directorate

At an off-site retreat in mid-March, the F&SS Directorate Leadership Team developed a strategy to collaboratively build a foundation for a stronger team in support of INL's laboratory agenda.

Led by Carlo Melbihess, F&SS director, and Ed Anderson, deputy director, the team-building activities compared notes on the best ways to efficiently align the directorate with laboratory strategic initiatives, plans and critical outcomes while achieving operational and safety excellence in all we do.

"People in F&SS look to us for leadership and our organization needs to be fully aligned with the new lab director and the new lab strategy," Melbihess said. "We need a clear understanding of the lab vision, mission and strategy in order to help align our people with strategic F&SS and INL goals."

Bryan Parker facilitated meetings, and led discussions on topics such as ways the leadership team could build on its strengths, find ways to address weaknesses, and influence their respective organizations to consistently achieve excellence. On the second day, the group reviewed the outlook for human capital and succession plans for key leadership positions.

The group revisited feedback from the all-managers workshop on lab strategic initiatives, and considered how F&SS could become even more valued by INL researchers as the "strategic partner of choice." They agreed celebrating success with workers and small groups reinforces how everyone is important in achieving the laboratory's mission. Paying attention to each worker's ideas and recommended solutions is a key; listening and learning from those who do the jobs every day.

"To build trust and teamwork, take time to meet and get to know each employee, listen to concerns, and consider how you can respond and take action to address issues in a positive way," Anderson said.

Discussion themes of the off-site sessions were continuous improvement (not settling for status quo), developing and training staff and leaders, and excellence in safety and operations.

Rod Bitsoi, F&SS Site-wide Facilities & Operations director, said quarterly front-line supervisor forums give managers an opportunity to review improvement actions. The forums also encourage conversations with workers to get their suggestions and buy-in for changes. Eric Anderson, Technical Support Services director, said, "We want to reach down to all levels of workers, and have all of them engaged in our expectations and safety culture."

Discussion also centered on applying to each organization the [eight principles](#) of Battelle's Safe Conduct of Research to develop supervisory leadership skills.

Debby Tate, Campus Development Office director, addressed the strategic importance of space management and infrastructure expansion to allow F&SS to both provide the capabilities and services needed by INL researchers over the next two to five years, and make it possible to achieve the lab strategy. In order for each F&SS division to accomplish



Bryan Parker leads a group discussion on consistently achieving operational excellence at the F&SS management off-site retreat. Among those in the discussion were Ed Anderson, Scott Wold, Sherree Hammer, Carlo Melbihess, Eric Anderson and Scott Lyman.

significant goals over the next five years, it's necessary to get ahead of the curve by effectively managing space resources, she said.

Parker reminded the managers that in order to be viewed as the provider of choice, their F&SS divisions must produce "a constant drumbeat of positive experiences for the customer to believe you are an excellent organization." Workers' behavior is driven by individual and collective mindsets.

"We want employees to feel they are engaged in meaningful work, and they know their place in the lab in achieving missions," Ed Anderson said. "We want to change the mindset so it's outward focused

on customers, and it's OK to bring forth bad news so we can chip in and fix problems." Leadership is about solving problems, "and when your people stop bringing you their problems, you have failed to lead them."

Scott Lyman, Research and Education Campus Facilities & Operations director, noted that teams of crafts and laborers are excited and engaged in achieving goals through their operational excellence teams. Scott Wold, Mission Support Services director, added that workers are committed to [F&SS values](#) and expectations that include excellence, integrity, ownership and teamwork.

CFA-623 air compressor results in efficiency, operational gains

Replacement of an air compressor that was nearing the end of its life cycle at CFA-623 resulted in major operational, energy and water efficiency gains.

Compressed air demands in the facility had changed over the years and a new, smaller, more efficient compressor was sought because of the elimination of the 12,615-square-foot multicraft shop building's HVAC system pneumatic controls, said Stan Malm, Site-wide facility project manager.

To address the new reduced air supply demand, F&SS employees conducted a load study to estimate the best size for a replacement compressor. The study evaluated four 15-horsepower compressors and determined that two of the four met the design requirement of a rated capacity of 62 standard cubic feet per minute. The old air compressor was a 25-horsepower Sullair rotary screw model with a rating of 102 CFM and a 120-gallon air receiver tank.

"Since rotary screw air compressors have advantages with noise reduction, air quality, efficiency and maintenance costs, a new rotary screw compressor was desired for this project," said Ray Hannah, lead engineer. The new compressor is an air-cooled 15-hp Kaeser SK 15 AirCenter™ Simplex, which is 91 percent efficient with a rating of 71 CFM and has a 92.5 gallon air receiver tank. The Kaeser replacement compressor was selected for ease of installation, increased air supply and ease of maintenance.

Assuming that the old compressor operated 80 percent of the time (7,008 hrs/yr) to provide compressed air for the building control system along with the shop's air tools, and the new compressor only operates 50 percent of typical work hours (1,040 hrs/yr), it results in \$5,615 in energy savings captured by this project, said Ernest Fossum, INL Sustainability Program Energy manager.



Efficient new air compressor for CFA-623

Water savings are impressive, too. Assuming that the old compressor used a little over 1 million gallons of water a year to provide once-through cooling of the compressor, the costs for pumping, treating and disposing of that water exceeded \$3,220 a year. As the new compressor is air cooled, the project completely eliminated this water need.

Total project cost was \$26,800 and the new compressor provides \$8,835 in energy and water savings for a simple payback of three years.

"Steve, Ray and the entire team at CFA continue to lead INL when incorporating sustainability into system updates, building operations and new systems," said Chris Ischay, Sustainable INL manager. "Great job everyone!"

F&SS service anniversaries

Please congratulate these employees on their service anniversaries.

30 years

Donald Likes, Kevin Wells

25 years

Kevin Brown, Boyd Howell, Katherine Wilson

5 years

Donda Walsh

LOSA training positively impacts INL work

Battelle Memorial Institute's Laboratory Operations Supervisor Academy (LOSA) brings Battelle's Safe Conduct of Research principles to life for front-line supervisors and their managers at the seven Battelle-managed national laboratories. LOSA coordinator Chris Bingham said 366 front-line supervisors and managers from Battelle affiliate labs have attended LOSA – 85 of them from INL – and they have returned to enthusiastically share what they have learned.

Several INL organizations are incorporating LOSA guidelines in their operations. INL's Radiological Control organization has begun applying LOSA principles in its training and is already seeing a difference.

Nine of Radiological Control's 13 first-line supervisors have attended LOSA training, with the rest scheduled to attend later this year. Radiological Control Manager for Balance of Facilities Terry Hendricks said LOSA was one of the best training courses he has ever taken. "LOSA is geared to interaction with people," Hendricks said. "You get feedback from your peers as well as feedback from trained observers. LOSA is valuable for new first-line managers all the way to people with 30 years of experience."

The key to LOSA's effectiveness is that it gives participants the opportunity to work together in role-playing scenarios designed to echo real-world events, problems and behaviors. Radiological Control Director Chere Morgan will take LOSA training later this year, but she has been so impressed with the feedback from Hendricks and other managers who have been to LOSA that she asked INL trainers to begin integrating LOSA concepts into required RadCon quarterly training.



Radiation instrumentation used for training can be remotely controlled by the instructor.

"We submit ideas to our training coordinator, Eric Horman, based on actual events," said Morgan. Horman works with the trainers to develop scenarios based on those events, incorporating LOSA concepts into Dynamic Learning Activities – real-work scenarios that take LOSA's role-playing structure to a higher level by running the scenarios in a realistic work setting. This gives participants the chance to encounter and work through real problems in a safe environment where they can make mistakes, learn and share experiences with peers and mentors. Participants include radiological control technicians, health physics technicians, supervisors, managers and observers.

RadCon's quarterly training takes place at the Eastern Idaho Technical College (EITC) Radiation Safety Technology training facility, which includes mock-ups of rooms, gloveboxes, and systems routinely encountered at INL. Morgan worked with INL's University Partnerships and Education Outreach to re-establish the Radiation Safety program at EITC last August, funded in part by INL through the efforts of the Leadership Management Team. In addition to the realistic setting, training includes equipment such as handheld radiation monitoring instruments similar to those used in the field. The radiological monitoring instruments used for training can be remotely controlled by trainers to simulate increasing radiation fields to give training participants a more real-life experience.

"LOSA training deliberately puts participants in a stressful situation," Bingham said. "It isn't training where information is pushed at them. They are engaged, and actively learning."

"We've seen firsthand that the LOSA concepts work," said Morgan. A recent class for new RadCon techs included a decontamination scenario. A couple of weeks later, two of those techs responded to a real contamination event at an INL facility, and knew exactly what to do because of the hands-on training they had recently completed.



A group of RadCon supervisors and technicians recently attended quarterly training. During the training scenario pre-job brief, trainers and managers observed. Participants are (from left): Chere Morgan, Sherelle Dye (seated), Terry Hendricks, Sandy Kirkpatrick (back to camera), Pete Martinez (seated), Chuck Johnson (standing), Gerald Gallegos, Ruthanne Sortor, Wally Hunt, and Eric Horman.

Sending all RadCon supervisors and Radcon trainers to LOSA training is a priority for the organization to ensure the LOSA concepts are understood and deliver continuous training improvements for the staff. RadCon technicians are encouraged to submit ideas for new dynamic learning activities based on issues they have encountered at work. "LOSA has been really inspiring for all of us," Morgan said. "We are truly putting into action LOSA's second principle: 'All staff members value the safety legacy they create in their discipline.'"

Other INL organizations are also seeing impressive results from integrating LOSA principles. In fact, Facilities & Site Services has begun a quarterly front-line supervisor training program based on LOSA principles. You'll be hearing more about these success stories in the future.

LOSA Safe Conduct of Research principles:

- Everyone is personally responsible for ensuring safe operations.
- All staff members value the safety legacy they create in their discipline.
- Staff members raise safety concerns because trust permeates the organization.
- Cutting-edge science requires cutting-edge safety.
- A questioning attitude is cultivated.
- Learning never stops.
- Hazards are identified and evaluated for every task, every time.
- A healthy respect is maintained for what can go wrong.

Community honors workers who lost lives

At a memorial ceremony April 23 in Freeman Park, several dozen people gathered to remember workers who lost their lives on the job.

Brandon Leatham, East Idaho Central Labor Council president, told the audience that the ceremony served as a memorial to fallen workers in Idaho and across the nation, where more than 4,700 people died on the job in 2014. Strides have been made in workplace safety over the past several decades, but more needs to be done by everyone from workers to elected official to make workplaces even safer, he said.

Mayor Rebecca Casper said city of Idaho Falls leaders are listening to workers' ideas on how to improve

workplace safety, and noted that public officials, union members and workers can join together to find ways to avoid cutting corners, and get work done more safely. She read a city proclamation recognizing Workers Memorial Day.

Those attending the ceremony pointed out that whenever someone is injured or killed on the job, it's devastating to family and friends.

Darion Smith recalled the one-vehicle accident in which two co-workers, Josh Clifford and Jeff Boyde, were killed while traveling to a job site for local retailer Brady's a decade ago. The men's names are engraved on the memorial at Cultural Circle near the Snake River in the park. Boyde was the brother-in-law of Smith, who was driving and was seriously injured in the accident. After surviving, Smith had difficulty coping with the loss of his friends and co-workers.

"They are still a part of me, and I love you guys," he told family members gathered for the memorial event.

The East Idaho Central Labor Council erected the workers memorial with the words, "mourn for the dead, fight for the living."



At the workers memorial ceremony in Freeman Park, Darion Smith, left, reminisces about an on-the-job vehicle accident that resulted in the deaths of co-workers Josh Clifford and Jeff Boyde. Brandon Leatham, right, East Idaho Central Labor Council president, later spoke about progress in workplace safety.

Underground storage tank removed at IRC

An Underground Storage Tank (UST) that once stored E85 fuel for the INL Research Center fueling station was removed April 14 as part of an ongoing initiative to reduce leak risks from aging tanks and expanding EPA regulations.

All USTs are highly regulated by EPA due to the potential for contamination to soil and waterways. Last fall, an inspection revealed that the sump underneath the fuel dispenser was rusted out and would need to be replaced to meet the code requirements, said Aaron Taylor, building specialist for IRC. In order to replace the sump, it would be necessary to cut out the entire fuel island, replace the sump, then pour a new island.

Rather than spend money to have the sump replaced, F&SS determined INL would be money ahead, in the long term, to remove the UST and demolish the fuel island. The UST at IRC was only a few years away from meeting its life expectancy, and then the lab would have had to undertake the expense to evaluate or replace the tank.

“REC Operations consulted with INL Transportation & Fleet Management, and decided the impact would be minimal to government vehicle users because these GSA-leased vehicles are able to be fueled at many local gas stations with individual fuel cards,” Taylor said.

This E85 (85 percent ethanol and 15 percent gasoline) tank was the first of potentially many others on



Removal of an old underground storage tank at the INL Research Center by NorthWind Construction, under the supervision of INL Construction Management, reduces leak risks from aging tanks and expanding EPA regulations.

the radar to be removed, said Scott Lyman, REC Facilities & Operations director. On the REC campus, INL's other underground storage tanks store fuel for emergency diesel generators, and will be replaced with above-ground storage tanks, which are thick-walled concrete vaults less susceptible to leaks, and easier to inspect, Lyman said.

The removal project contract was awarded to NorthWind Construction under the supervision of Stephanie Tilton with INL Construction Man-

agement. The job was completed on time, within budget – and most importantly – safely.

“A big ‘thank you’ to Steph and construction for all the hours of prep, walk downs, and planning for this high-profile and highly regulated project,” Taylor said.

Lyman added his praise: “Kudos to the whole project team for successfully completing the project, and increasing the safety to human health and the environment.”

Four positions filled in REC F&O Division

From Scott Lyman, REC Facilities & Operations director:



David Lively



Brad Ritchie

I am happy to announce that four experienced individuals have recently accepted new positions in the Research and Education Campus Facilities & Operations Division.

David Lively is now the operations manager for REC Facilities & Operations east campus, and Brad Ritchie is now the operations manager for REC Facilities & Operations west campus. David and Brad will be responsible for oversight of the operations and maintenance of the east (primarily DOE-owned buildings) and west (primarily leased buildings) campuses.

David, who filled this position on an acting basis the past three months, has gained a variety of experience in engineering, operations and maintenance over his 25 years at INL. He has served as a system engineer at various nuclear facilities, F&SS complex manager at the Materials and Fuels Complex, F&SS Integrated Work Support manager, and the functional lead for Work Management and Maintenance. Prior to his service at INL, David worked 10 years for Newport News Shipbuilding as an engineer in support of nuclear refueling and reactor plant overhaul. David earned a bachelor's degree in engineering technology from Louisiana State University, and holds a BOMI International Facilities Management Certificate.

Brad will transition from his role in the manufacturing group at the North Holmes Lab to fill the

role Grayson Russell graciously handled in recent months, and I thank Grayson for his outstanding leadership during this time. Brad has been involved with fabrication, operations and maintenance for 39 years. He has worked as a carpenter, mechanic and machinist. After college, he was an engineer in the aerospace industry until 1990, when he had the opportunity to come to INL. Starting at the SMC project, he worked in product development, then in maintenance as a system engineer. He's been a group manager in Fabrication Services for more than a decade. Brad has a bachelor's degree in manufacturing engineering from BYU.

Angela Reese and DeVoy Goff have accepted positions as building specialists for REC. Angela will be based at the INL Research Center in support of the east campus, and DeVoy will be based at INL Administration Building in support of the west campus.

Angela comes to us from a diverse background with 25 years of Department of Energy contractor experience, most recently in contracting and leasing. She brings a keen business sense and in-depth knowledge of INL and DOE processes related to INL and

REC business. Angela earned a bachelor's degree in business administration with a management major from Idaho State University, and is working toward a master's degree in technology management through the University of Idaho.

DeVoy brings an extensive background in work control and planning to his new position as building specialist with REC Facility Services. He attended Idaho State University, and his experience includes an apprenticeship through the Local #648 plumbers and pipefitters union (earning journeyman and contractor licenses in plumbing, and a journeyman license in HVAC), 12 years at AMWTP with two years as an operator, where he was involved in commissioning the plant for operation, and 10 years in work control and planning, while overseeing and providing training for the lock-out/tag-out process at AMWTP. DeVoy came to BEA six months ago as a planner in the Work Control organization.

Please join me in welcoming these four people to their new roles, and support them as all of us move F&SS forward in our goal of safely achieving the lab's mission and vision.

Two safety professionals join ES&H team

Two new safety professionals recently joined the Facilities & Site Services Environment, Safety, and Health team led by Dwight Stevenson. Shawn Williams and Dusty Hawker have roots at the INL Site, including extensive work supporting and promoting safety.

Williams joined the ES&H team shortly after earning a Bachelor of Applied Science degree in Occupational Safety and Health from Columbia Southern University. He will be supporting F&SS work at the desert Site. Williams has spent his career focusing on safety as a regular part of his work in geophysical surveys and subsurface investigation, including more than eight years at the INL Site. Most recently, he served as Battelle Energy Alliance's subsurface investigator team

lead and SFR (subcontractor field representative) mentor. He directed subsurface investigations, managed the team budget and provided oversight to subcontractors while ensuring work was performed safely, regardless of schedule impact. Under Williams' lead, INL's subsurface program became widely acknowledged within the DOE Energy Facility Contractors Group (EFCOG) as the benchmark across the complex.

Hawker has joined the F&SS ES&H team in town, where he will support the INL Research Center and the sitewide R&D Fabrication shops. He holds a Bachelor of Science degree in Human Resource Training and Development from Idaho State University, and has directed health and safety programs for the oil and gas industry across the Midwest. As an INL bus driver for seven years, Hawker was heavily involved with the company employee safety teams and Voluntary Protection Program, and conducted training on INL safety processes for other DOE sites, industry and VPPPA (Voluntary Protection Programs Participants' Association) conferences. Hawker says he is really excited to be back!

Please join Stevenson and Carlo Melbihess, F&SS director, in welcoming our new safety professionals.

Recycling at INL

Clean energy and sustainable operations are at the core of DOE's mission at Idaho National Laboratory. Sustainability is the idea that steps taken today will not negatively impact future generations. Recycling is a key component of sustainability, and is a step everyone working at INL can take every day. Recycling waste materials instead of discarding them has the potential to recover valuable resources for reuse, saving energy, labor and money.

Recycling is a critical component of INL's Sustainability Program, which includes DOE's goal of recycling 50 percent, by weight, of nonhazardous municipal solid waste each year through 2025. INL has been steadily approaching that goal, recycling 44 percent of its nonhazardous municipal solid waste in 2015. Because the amount of waste is influenced in part by the number of employees, INL's population growth of nearly 10 percent in 2015 is one factor that kept us from reaching our goal last year. With all of us working together, INL should exceed 50 percent in 2016.

Why recycle? Because recycling saves energy – lots of energy. In 2015, INL recycled half-a-million pounds of paper, and nearly a third-of-a-million pounds of co-mingled trash – plastic, aluminum and tin. According to EPA, every ton of paper recycled saves the energy equivalent of 166 gallons of gasoline. That means the 500,000 pounds of paper you recycled at INL last year – 250 tons – saved the energy equivalent of 41,500 gallons of gas. Way to go!

The U.S. Energy Information Administration states recycling is the primary energy-efficiency technology for aluminum and steel manufacturing. EPA estimates recycling one ton of aluminum cans conserves the energy equivalent of 1,234 gallons of gasoline (equal to 26 barrels of oil). In fact, the Aluminum Association reports that recycling aluminum into new cans saves more than 90 percent of the energy it takes to make cans from scratch.

How to recycle at INL

Recycling at INL is easier today than ever before. In addition to the dual-stream containers located in common areas across the site, most Research and Education Campus offices now contain a blue co-mingle basket with a small black waste bin hanging from the side, so recyclers don't even have to leave their chairs to participate in recycling.

The recycling rules are pretty simple:

Paper: All paper is recyclable at INL. Magazines, newspaper, file folders, card stock, Post-it notes, and office paper can all be recycled. The one exception is the Specific Manufacturing Capability, where office paper is not recycled. Other paper products can be recycled at SMC. Books are recyclable, as long as the hard covers are removed and discarded. Paper that contains controlled unclassified information (CUI) is recyclable, but not in the deskside bin. CUI paper must be taken to the large locked gray CUI bins. If you have more than a few pieces of paper to recycle (including magazines, books, and newspapers), the big CUI bins are where you should take it, rather than trying to cram it into your deskside bin, or stuffing it into the common area dual-stream containers. All office paper collected in the locked, gray bins is shredded on-site before being taken away for recycling. Cardboard is also recyclable, and can be left beside the dual-stream bin or the co-mingled bin.

Plastic: Nearly all types of plastic are recyclable, including bottles, lids, yogurt containers, and frozen dinner trays. Since food and liquid are not recyclable, make sure to empty/scrape your plastic items before putting them into the recycling bin. The emptying/scraping step is important – the entire bin will have to be discarded if food or liquid is present.

Batteries: Batteries are recycled at the Materials & Fuels Complex, the Advanced Test Reactor Complex, Central Facilities Area, and in-town facilities. ATR Complex collects alkaline batteries through the "Big Green Box" program. Look for upcoming



information on the battery recycling pilot program at certain in-town facilities.

Cans: Metal cans, whether steel or aluminum, are all recyclable. Because sharp lids are dangerous, they need to be removed, pushed into their can, or discarded in the special "sharps" containers. Cans should also be emptied before recycling them.

Several areas at INL collect cans separately, taking them in to Pacific Recycling and donating the cash received to INL's Christmas for Families program. According to Waste Management Specialist Ben Walton, can recycling at the ATR Complex totaled more than 600 pounds in 2015, contributing over \$200 to the Christmas for Families program.

Behind-the-scenes Recycling

In addition to office recycling, INL recycles hundreds of thousands of pounds of many other items. Cooking oil is recycled at all facilities. The Big Shop at CFA recycles tires, vehicle batteries, oil and rags. Scrap metal, wood and pallets are recycled across the site. Used electronics are recycled as well.

Does INL really recycle?

Some people think recycling at INL is a sham, because they may have seen a custodian emptying co-mingled bins into dumpsters, or because they have seen INL waste trucks picking up co-mingled waste and assume it all goes to the landfill.

Custodians don't sort trash at INL. If a co-mingled bin has been contaminated by someone carelessly throwing unrecyclable items such as food, liquid, or the contents of a chewing tobacco cup into the co-mingled bin, the entire bin has to be discarded. Dual-stream bins are located in common areas almost everywhere, so it's easy to put waste in the appropriate side.

Although INL waste trucks pick up all waste, co-mingled waste and landfill-bound waste are picked up on different days. Co-mingled waste is hauled to Idaho Falls to the recycling center, where it is sorted and processed.

Who is recycling?

Most workers seem to be recycling at least some of the time, according to custodian and laborer supervisors across the site. Tate Capson is the foreman for the laborers who pick up recyclables at ATR Complex. "Co-mingled waste is picked up a couple of times a week," he said. "Recycling cans for Christmas for Families makes people feel good. And it helps the good recycling habit catch on."

Bob Kite, maintenance foreman over landlord crafts at SMC, said, "Our employees are very conscientious about recycling." Even though SMC can't recycle office paper, its recycling numbers are over 40 percent.

Supervisor Jason Mathews at MFC said, "The co-mingle bins [at MFC] don't fill up as fast as they should." He believes better training would help – people are sometimes confused about what can be recycled and what can't.

Mathews is a member of the MFC Sustainable Initiative Network – a new team focused on the development of sustainable initiatives. With help from the people at MFC, and elsewhere within INL, the Sustainable Initiative Network is planning to transform sustainable ideas into economically viable alternatives at MFC. If you'd like more information on the MFC Sustainable Initiative Network, contact Jason Mathews (533-7714).

All employees can reduce energy use by turning off computers and other office equipment, including task lights, at the end of each workday. INL's sustainability strategy includes infrastructure upgrades to increase reliance on renewable energy, the use of biobased fuels in the bus fleet, xeriscaping to reduce water consumption, and reducing the use of hazardous chemicals and materials. For more info on these activities see the Sustainability page on [Nucleus](#).

Recycling is an important (and easy) way individuals working at INL can help preserve the earth's resources for future generations. To learn more about the recycling program and help determining where items should be placed, visit the [Recycling website](#) on Nucleus.

[Recycling video](#)

Benchmark

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